

**The Perceived Importance of Selected Nursing Activities in The People's
Republic of China**

By

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in Partial Fulfillment of
the Requirements for the Degree of

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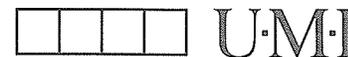
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Abstract

The purpose of this study was to identify and compare which nursing activities are viewed as important from the perspectives of Chinese nurses, physicians and patients. The theoretical perspective guiding this study was role theory. A structured questionnaire was distributed to one hundred nurses, one hundred physicians and three hundred hospitalized adult patients in a teaching hospital in China. In the study, one nurse was paired with three of her patients. Forty-eight selected nursing activities which were categorized into four groups: physical care; psychosocial care; observing, reporting, and implementing medical care; and preparing for discharge, were assessed for importance in the questionnaire.

The response to each selected nursing activity was assigned a numerical value ranging from 0 (does not apply) to 5 (extreme importance). During the process of data analysis, both descriptive and inferential statistical techniques were used. The findings were that: 1) there were no significant differences among the nurse, patient, and physician groups in evaluating the importance of selected nursing activities; 2) with paired data, however, patients rated nursing activities of physical care, psychosocial care and preparing for discharge significantly higher than their nurses; 3) there were no significant correlations between nurses', patients', and physicians' characteristics and their perceptions of the importance of selected nursing activities.

That patients rated nursing activities of physical care, psychosocial care and preparing for discharge significantly higher than their nurses may be of concern to nursing in China, since this may suggest that patients have higher expectations of nursing than nurses themselves. The disagreement between the nurses and their patients in assessing the importance of some of the nursing functions also provides a unique opportunity for examining current hospital nursing practice and certain aspects of nursing curricula in China.

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Nursing faculty statistical consultant, Dr. Jeff Sloan, dedicated many hours of work in helping me through the process of data analysis for this study. His contributions are special and appreciated.

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CHAPTER 1

INTRODUCTION

In this survey study, the importance of selected nursing activities was rated by Chinese nurses, patients and physicians. Their view of the importance of these nursing activities provides the insight into their perceptions of the role of the nurse in China. Therefore, this study offered an opportunity to better understand the conceptualization of the role of the nurse in China.

1.0 Background to the Study

In Chinese, "hu shi" means nurse. This word was translated from English to Chinese in June of 1914 by a British trained Chinese nurse, Zhong Maofang. "Hu" in Chinese means to protect, guard, maintain, and nurture. "Shi" refers to someone who is knowledgeable, capable of learning and intellectually developed (Wang, 1986). Judged by today's standards, this translation captures the essence of modern nursing. However, since nursing was directly imported from the West to China, one might wonder how readily it was accepted in the new environment.

Before Western hospitals and professional nursing arrived in China, the sick were treated by traditional Chinese medical practitioners and looked after by the family at home. Around the beginning of this century, Western missionaries brought to China both Western medicine and Western style hospitals. Without nurses a hospital cannot function, so a Western system of nursing also was introduced in China around this time. Since the concept was foreign to the Chinese, it is understandable that it would take time for them to comprehend "nursing". However, by the year of 1914, the term "hu shi" appeared for the first time in Chinese vocabularies. Chinese men and women, mostly with good educational

background, ventured into this new profession. Taking Western nurses as their mentors and models, these men and women formed the elite of Chinese nurses. For many years, however, the Western conceptualization of nursing was confined to this small group of pioneers.

Not only were the numbers of nurses initially small, but the hospitals where most of the nurses worked were located in urban areas. The majority of the Chinese population who were farmers in the rural areas had no access to these medical facilities. Since they were not in contact with the majority of the Chinese people, nurses had a limited impact on Chinese society.

Following the Japanese invasion of China in 1938, many missionary hospitals in the urban areas remained open in the Japanese occupied territories, and nurses were still practicing Western nursing in these hospitals. In contrast, in the remote rural areas where communist troops were based, a very different type of nursing evolved. The situation faced by the communists was extremely difficult. Supplies were terribly inadequate for the communist troops and necessities such as food, clothing and medications were in short supply. Many wounded soldiers were taken care of by a small number of aides, trained by a few Western doctors such as the Canadian, Dr. Bethune. This difficult situation forced the communists to teach "nursing" to whoever was available and as fast as possible. Nevertheless, this type of nursing had a significant impact on the development of nursing after the communists came to power in 1949. The communist leaders of the New China had experienced only this kind of nursing which was atheoretical, unsystematic, informal, but practical. The Western model of nursing was either unknown by these leaders or opposed in principle because of the prevalent anti-West sentiment from 1949 to 1976.

After 1949, Chinese nursing was forced to abandon the Western model and embraced the model familiar to the communist leadership. By the late 1950's, virtually all missionaries were expelled by the communist government. The status of nurses who were trained by missionary schools or hospitals changed. Because they had contact with

Westerners, these nurses were regarded with suspicion, even though they were cautiously put into use by the government. The voices of these elite nurses were silenced and ignored.

In 1953, nursing education in China took another turn. University level nursing education ceased to exist, instead, universal three year diploma programs were put into place. The standardized curricula were introduced for all medically related training programs such as laboratory technicians, x-ray technicians, midwives, practitioners of traditional Chinese medicine and nurses. Thus, nurses, for the first time in Chinese history, were formally considered technicians and nursing lost its identity as a unique profession. Nurses were confused and discontent with their role in the New China's health care system. They were concerned about their future in nursing, and about their social status and image. Some of them even spoke out for better educational opportunities and better treatment by the government. The situation did not change, however, for these Chinese nurses. The public readily accepted the official views of nursing, since they never had much understanding or exposure to the Western concept of nursing. However, the new model did accomplish one positive outcome before the Cultural Revolution started in 1966, that is, the population of Chinese nurses increased to some degree. This was the result of opening more nursing training programs and hospitals, recruiting junior high school graduates, and establishing a shorter period of training that emphasized techniques and skills.

Ten years of Cultural Revolution (1966-1976) had a negative impact on almost every aspect of Chinese life. Nursing also suffered a severe setback from this revolution which was the most massive and long lasting political campaign in Chinese history. Professional journals were banned and text books were burned. Nursing schools were closed and, as a result, some of them had no graduates for four to five years. Thus, by the end of the Cultural Revolution, a shortage of nurses was inevitable.

During the Cultural Revolution, hospital wards were either closed or run by junior physicians, medical students, junior nurses or nurses' aids. Meanwhile, well trained and

experienced physicians and nurses were sent to countryside or labor camps for "re-education." The role and functions of the various professionals became confused and unclear. Some physicians were forced to carry out nursing functions and some nurses were ordered to carry out medical functions. The best words to describe the situation during the Cultural Revolution and its impact on nursing would be destructive, confused, and tragic.

Since 1980, China's reformers have gained power. Recognizing the poor economic situation of the country, the new leadership was forced to open China's door to the West for the first time since 1949, to seek foreign investment and to learn new technologies. Internally, building the country through economic reform rather than through "class struggle" has been the priority. Sorting out the chaos left by the Cultural Revolution has not been easy for nursing. Reintroducing regulations into hospitals, promoting better educational opportunities for nurses, learning new technologies, and engaging in international exchange programs were again placed on the agenda to upgrade Chinese nursing. Some senior nurses who were trained in Western-style nursing schools regained important leadership positions. Since 1983, several university level programs have been established in China, but the enrollment is small because of limited funding and few qualified faculty. Nursing remains unattractive as a career to youth due to poor working conditions, low pay and the fact that nursing is still identified as "dirty work". As a result, the problems facing Chinese nursing in upgrading the profession and expanding the number of nurses are overwhelming.

These problems can be classified into two categories: quantity and quality. As previously identified, China badly needs more nurses to provide appropriate care for the public. Statistics from 1986 revealed that China had 680,000 nurses, or 20 times the number of nurses in 1949 (Wang, 1986). But the Chinese population in 1986 was one billion, thereby producing a ratio of nurses to population of 1:1600. This number falls far behind industrialized countries. Compared to other Asian countries, this statistic is disturbing. For example, the best record of other Asian countries was 1 nurse to 430

people (Wang, 1986). To achieve a similar ratio, China needs another two million nurses. In addition, the ratio of physicians to nurses in 1950 was 1:3-4, but dropped to 1:0.29 in the 1980's (Wang, 1986), which indicates a serious shortage of nurses. This severe lack of nurses in China may help explain why nurses play a rather limited role in the health care system.

The quality of nursing care also is problematic. Since nurses are taught mostly technical skills rather than professional and theoretical concepts, one should not be surprised that nurses perform more like technicians rather than professionals. Nursing practice and education are determined by the Beijing government, in other words, nursing has limited autonomy and must obey government orders. In this case, even if nurses realize that changes need to occur and they are motivated to implement changes, until the government agrees, nurses cannot accomplish their goals. Conflict of interest and tension between the government and professionals is constant, a factor that has no doubt hindered nursing development in China.

In recent years, the importation of Western techniques including curriculum, textbooks and equipments has been fashionable. The assumption is that Western countries are more advanced, and borrowing from them will result in progress. However, ignoring the reality of China--its huge population, its poor economic situation, its totalitarian political system-- directly borrowing Western models and ideals without critical scrutiny can be very costly in the long term and will do little to help the Chinese people.

Given the history of nursing in China, one might anticipate that nurses' roles and functions would be unclear and undefined. Although nursing was brought to China from the West almost 100 years ago, very little has been studied about the role and function of nurses in China. Literature related to Chinese nursing is primarily anecdotal and not based on scientific study. One reason for the lack of empirical studies of the role of nurses in China is that the unstable political situation served to stultify professional development, including research, particularly during the Cultural Revolution.

Nonetheless, the function and role that nurses should perform is a fundamental concern to the Chinese public and similarly to health care workers. Nurses themselves are urging the government to develop future plans for the profession and improve the treatment of nurses. The Chinese public want better care from nurses. Physicians are in need of more competent colleagues. Research on how Chinese people perceive nursing activities, functions and roles can help to clarify the current strengths and weaknesses of Chinese nursing practice. Only by knowing how Chinese people perceive current nursing activities, can one possibly start to make plans for initiating change in the future. In this case, research in this area is not only necessary, but also crucial.

1.1 The Research Questions

China's population is now over 1.1 billion and still growing. The need for more effective recruitment, expansion, and improvement of nursing education is urgent. Meanwhile, improvement in the quality of patient care and the development of more efficient use of nursing personnel also are required.

Since 1977, nursing in China has experienced a renewed effort to provide a sound foundation for nursing in the future. The current problem areas in Chinese nursing, as identified by the president of Chinese Nurses Association (CNA), Lin Juying (1986), are: 1) a shortage of nurses; 2) lack of schools of nursing, especially collegiate schools; 3) lack of funds to send students abroad to study and to invite consultants to China; and 4) an unclear definition of the role of nurses in health care. To summarize the situation, there is no doubt that a substantial gap between nursing in China and in the West. Nursing research in particular is limited, if not absent in China. Empirical studies on Chinese nursing functions will contribute to the further development of Chinese nursing. Since most Chinese nurses work in a hospital setting, conducting research on Chinese nursing functions in a hospital was deemed most appropriate.

This study, then, focused on Chinese nursing activities in a hospital setting. Nurses, physicians, and hospitalized patients may have different perceptions of the importance of nursing activities based on their different expectations of the role of the nurse. Additionally, expectations of the role of the nurse in China may differ from their Western counterparts because of the unique cultural and social identity of Chinese people. This study was designed to provide basic information to assist in understanding activities, functions, and roles of the nurse in China.

The questions which guided this research were:

- 1) What is the perceived importance of selected nursing activities as rated by patients/nurses/physicians?
- 2) To what extent and in what areas do nurses, patients, and physicians agree on the relative importance of selected nursing activities?
- 3) Is there a relationship between selected nurse/patient/physician characteristics and the extent of nurse/patient/physician agreement concerning the perceived importance of nursing activities?

1.2 Purpose and Objectives of the Study

The purpose of the study was to identify and compare which nursing activities were viewed as important from the perspectives of Chinese nurses, physicians and patients.

The objectives were to:

1. provide better understanding of the conceptualization of the role of the nurse by nurses, physicians, and patients in China, and
2. explain the findings within the context of role theory.

1.3 The Theoretical Aspects of the Study

The theoretical perspective guiding this study was role theory. Role theory "refers to a large body of literature--much of it hypothetical discussion and somewhat less of it reporting empirical research--related to social behavior and both the overt and covert mechanisms that shape it" (Conway, 1988, p.63). Because the volume of the theory is huge, only the concepts that are relevant to this study will be discussed.

A role consists of several components which include: values, attitudes, and behaviors (Linton, 1945). Among the three, "role attitudes and opinions are subjective phenomena learned from social and cultural experiences." (Hinshaw, 1988, p.343). Values are defined as ideas that members of a social structure hold to guide the identification of goals or objectives (Scott, 1970). In the case of nursing, values, then, are ideas held by nurses in identifying nursing goals or objectives. Attitude is considered a tendency or a readiness to respond to social objects or events with a favorable or unfavorable evaluation; opinion is defined as expressed attitude (Katz, 1960). In this study, the major concern is the perceptions of selected nursing functions. Perception is classically defined as the awareness of the elements of environment through physical sensation (Webster's Ninth New Collegiate Dictionary, 1985). However, in the social science sphere, the meaning of the word is broadened. In this study, perception is used interchangeable with attitudes or opinions. Therefore, this study really was a study of role attitudes or opinions.

There are two major approaches from which roles have been studied in the behavioral sciences. These two perspectives are structuralism and symbolic interaction. In this study, the approach of integrated structuralism and interactionism was chosen as the guide. In differentiating the two perspectives, Conway claimed, "Social action [role expectation and performance] is constructed not simply as learned response but as an organizing and interpreting of cues in one's environment" (1978, p.18). In other words, one not only passively accepts social facts (structuralism), but also actively analyzes and

makes sense out of social facts by oneself (symbolic interaction). Although the difference is obvious between the two perspectives, commonalities do exist. In identifying these commonalities, Hinshaw stated that "role always involves either an individual's definition of a specific situation or an individual's acceptance of a group's definition of a specific situation. In addition, both perspectives assume a process of interaction and communication (socialization) as a prerequisite to preparing the individual for enacting a specific role" (1988, p.344). This merged role theory perspective was the basis for the measurement of role characteristics such as attitudes and opinions, because role attitudes and opinions are outcomes of the process of socialization by which one is able to learn and shape roles (symbolic interaction) as well as accept society's definition of a role (structuralism).

In this section, the concepts of role theory relevant to this study were discussed. The explanation of how to use these relevant concepts of role theory were used to guide the study in terms of choosing the appropriate methodology and instrument will be discussed in Chapter 3.

1.4 Summary

In this chapter, the background of the study, the statement of the problem and the theoretical perspective guiding the study were presented. First of all, the purpose of the study was to identify and compare which nursing activities were viewed as important from the perspectives of Chinese nurses, physicians and patients. Second, the explanation was offered as to how the role theory was used in this study. According to role theory, each role has components of values, attitudes, and behaviors. Values and attitudes are subjective phenomena and relevant to this study. The congruence of study purpose and theoretical perspective, as described above, is believed to enhance the overall quality of this study.

CHAPTER 2

REVIEW OF THE LITERATURE

2.0 Introduction

This chapter includes three sections 1) current Chinese nursing practice, 2) the historical background of Chinese nursing, and 3) studies of nursing activities, functions and roles in the West. A review of the first two areas provides the context in which the problems and issues of Chinese nursing can be understood. In the third section, the relevant methodologies and the results of previous studies of nursing activities and functions are described.

2.1 Current Nursing Practice in China

In a review of the literature, research oriented articles specific to Chinese nursing practice were not found, therefore descriptive and anecdotal articles have been utilized. The information revealed in these articles was frequently contradictory and superficial.

Limited information was found, for example, about the role of nurses in China's health care system. One of the problems apparent in Chinese nursing is "an unclear definition of the role of nurses in health care" (Lin & Li, 1986, p.75). Lyons (1985) described Chinese nursing in the following way:

Most people are having their health needs met, but not by nurses. Nurses are part of the health care team in the urban hospitals, but nurses do not play a large role in the rural areas. Nurses do not seem to mind this situation (p.2)

While this seems to indicate that the scope of the nursing role in China is restricted to urban hospitals, there is information which indicates that some Chinese nurses work outside the hospital. As Lin (1986) pointed out:

All the young nurses just graduated from nursing schools are usually assigned to hospitals. Some of the older and more experienced nurses work in clinics of factories, schools or government agencies. They can treat common diseases with different methods such as acupuncture, and physiotherapy. Some of the public health nurses work for the District Health Station and give health education to people to prevent tuberculosis and other diseases especially the acute contagious diseases and epidemic diseases in a specific geographical area (p.3).

No information is available, however, that defines the role of these "public health" nurses nor whether there is special training for them. The speculation is that the number of these nurses is very small.

In terms of nursing practice, Lyons (1985) claimed that "nursing is there to aid the doctor, both in the hospital and commune, and functions within the medical model" (p.3). Similarly, Brower (1985) reported that "the level of nurses' education and functioning appears to be similar to America's nurses in the 1950's. Nurses remain quite separate from physicians in socialization and learning, and serve in supplementary roles to physicians" (p.29). Holtzen (1985) again reported that nursing roles seem to be limited. She stated that "today, Chinese nursing is still at a technical level." (p.90). She also remarked that "most of the nurses in China are employed in hospitals. Their tasks seem very similar to those of hospital nurses in the United States.... China, it would appear, is late in recognizing the role nurses can play in advancing health care" (p.91). Chang (1983) found that "staff nurses in hospitals work under a functional system, giving medication, starting intravenous infusions, drawing blood, transcribing and checking physicians' orders, recording nursing

observations, and providing some basic nursing care" (p.390). However, Chang is unclear as to what she means by basic nursing care.

In contrast, Lin and Davis (1985) reported that Chinese nurses had a certain amount of autonomy and took a role beyond the functional level. They stated:

Nurses can, at their discretion, give treatments to patients in certain circumstances based on their experience, ability and special training. For example, during the night, when there are fewer doctors, some nurses may prescribe sleeping pills for insomnia. In emergency cases, if the patient goes into shock, cardiac arrest, etc., the nurse can give treatments such as intravenous drugs, heart massage and defibrillation before the doctor comes (p.283).

Garfield (1978) also reported that "nurses take an active part in making patient care decisions; and that, in many hospitals, they accompany physicians on rounds in the morning, and are integral participants in patient care conferences" (p.131). These conflicting reports may indicate regional variations and a lack of national standards for nursing.

There is evidence that psychological and social support are not considered as a formal nursing function. Iorio and Eelson (1983) reported that "prenatal care is available, but only the physical aspects are considered. Teaching supportive care and the father's psychological needs were completely ignored" (p.101). They also observed that "privacy for the mothers was nonexistent.... Bonding and attachment theory were unknown to the Chinese, so little interaction between mother and baby was fostered, and breast-feeding was never encouraged at the time of delivery" (p.102). Similarly, Litt (1985) reported that the emotional needs of hospitalized children were not considered. In most hospitals, visiting hours for the parents were restrictive. That emotional damage can be caused by separation of the child and family seemed unknown to the Chinese nurses. This may be the result of limited exposure to psychosocial nursing care in the nursing curricula.

Additionally, a shortage of nursing staff may result in such nursing interventions being considered non-essential.

The shortage of Chinese nurses also has had an impact on Chinese nursing practice. In contrast to North American hospitals, there are more physicians than nurses in Chinese hospitals. Consequently physicians often provide direct patient care by monitoring patients' vital signs, administering medication, and even feeding and cleaning (Chang, 1983). This may explain why physicians in China have been functioning more broadly in patient care than their counterparts in North America. This may also partly explain why nursing in China takes on a much more technical role. In addition to the high physician to nurse ratio, Brower (1985) also suggested that postoperative patients are nursed by physicians because physicians do not trust the nurses. The physicians indicated that the low level of training for nurses necessitated physician care during the postoperative period.

In summary, some of the characteristics of Chinese nursing practice are: 1) the unclear role of Chinese nursing in the health care system; 2) the employment of most nurses in hospitals; 3) the preponderance of technically oriented nursing functions; and 4) the severe shortage of nurses. Having identified these characteristics, one may ask what factors have contributed to the current situation of Chinese nursing? In the next section of the literature review, the historical context in which Chinese nursing has evolved will be briefly presented. Although it will be brief, this review is considered crucial for explaining the political and social factors which have contributed the current nursing situation.

2.2 Historical Background of Chinese Nursing

As we learned from the previous chapter, professional nursing originated a century ago in China and was introduced by the Western missionaries. Since then, Chinese nursing has been through various stages and has been influenced by China's political, economic, and social conditions. These conditions varied greatly depending on the historical period.

In this section then, the discussion will focus on how these factors helped to shape Chinese nursing in its various stages and eventually led to the conditions previously discussed.

2.2.0 Chinese Nursing From 1880 to 1927: Emergence and Early Development

For the Chinese people, the nineteenth century and the first half of the twentieth century was a time marked by misery, confusion, and defeat. Internally, the imperial government of Qing faced disastrous floods, rebellions, and poor economic growth. Externally, Westerners arrived with many forms of challenges: commercial competition, colonization, military invasion, the sale of opium, and missionary work. Furthermore, a long-time imperial policy of global isolation had deprived China of the benefits of scientific knowledge and industrialization, which consequently led China to a backward-looking society (Chen, 1989). Unprepared for, and unable to cope with all the difficulties, the Qing dynasty eventually fell in 1911. After the Qing regime fell, Sun Yat-Sen's Republican government was too weak to control the whole nation. His government was so politically divided that no policy of any kind could be effectively implemented. As a result, the war lords fought over China's territories and controlled them through military means.

Under these circumstances, health care in China was extremely inadequate during this time. The poor economy, the interference of war, and the weak leadership of the central government made the establishment of a functional national health care system impossible. If there was no national health care system of any kind, what was the health situation of people and who treated and took care of the sick?

Throughout the centuries, China had only one medicine--traditional Chinese medicine (TCM). The knowledge of TCM accumulated over a long period of time through trial and error, therefore the experience of a practitioner was most important. The training of the TCM practitioners was solely through apprenticeship and the standards varied a great deal. The TCM practitioners were also quite different in their approaches to healing: some

of them were herbalists, others were bone setters or acupuncturists. Although TCM practitioners were found all over China, there were no formal standards concerning their qualification. Therefore, there was no way of identifying "witch doctors" whose practice was based on superstition rather than empirical knowledge, and who usually did more harm than good (Croizier, 1968).

Overall, TCM, the only existing medical practice in China, could not cope with the health problems of Chinese people at that time. Because accurate statistics were not collected, the national state of health can only be estimated. The crude death rate in 1920s probably exceeded 30 per 1,000; the infant mortality rate was around 200 per 1,000 live births; and life expectancy was about thirty-five years. Infectious diseases caused between one-third to one-half of all deaths (Chen, 1989).

Western medicine was brought to China by missionaries from the West in the late nineteenth century. However, the number of Western medical facilities and practitioners were insufficient to meet the needs of China's large population. The few existing Western hospitals was confined to urban communities, and a shortage of medical professionals and medications left most rural areas without formal medical and health care (Lucas, 1982; Minden, 1979; Chen, 1989). Not only were these Western facilities few, but they also were not widely accepted. Because Western medicine represented an alien culture and a foreign way of doing things, it was unwelcome and regarded with high suspicion. Moreover, these Western doctors mostly opened private clinics or hospitals, which focused on cure rather than prevention. This approach might have benefited some urban dwellers, but in general made no difference in improving the health conditions of the vast majority Chinese people.

Nursing accompanied the arrival of Western medicine and shared many of the same problems that Western medicine had in China. Moreover, nursing, unlike Western medicine, which Chinese people could still compare to TCM, was a totally new concept. Before Western hospitals and nurses arrived, taking care of a patient was the responsibility

of their family and was done at home. Therefore, nursing did not exist as a profession. Even worse, most of the nurses were female, which was another disadvantage for the development of nursing in China. The relationship between women's issues and the development of nursing is discussed in more detail in section 2.3.

The political, economic, and social conditions described above influenced China's health care system during the period of 1800-1911. The main factors affecting the development of China's health care included the role of TCM and its associated problems, the impact of Western medicine and nursing in China during this period, and the relative concentration of health care development in the urban areas, which meant that new approaches to health care had little impact on the majority of the Chinese people. The following section discusses the development of nursing education and practice in more detail.

The formal training of Chinese nurses started after the missionary hospitals were established in some large cities in China. According to Bowers (1972), what was probably the first nurse training program was opened in 1884 by William Lockhart at his hospital in Shanghai. Other programs were established in 1887 and 1901 at different universities and hospitals in Shanghai, in 1902 in Canton, Hankow and Chongqing (Chung King), and in 1906 as part of the Peking Union Medical College (PUMC). These programs were quite small, often consisting of only one or two students, and some accepted only male students.

In 1914, for example, there were only one male and two female nursing graduates from Canton hospital. In the same hospital, only seven men and four women were in the first year training of that year. The director of the Red Cross Hospital in Shanghai, Henry S. Houghton, was a pioneer in promoting nursing as a respected profession for well-educated young women from good families. He started a program at the Red Cross Hospital and enrolled four young female students in a three-year curriculum (Bowers, 1972).

One of the most significant nursing developments during this period was marked by the establishment of a college level school of nursing at PUMC in 1921. The close cooperation between the Republican government and the Chinese Medical Board (a missionary medical organization in China) had made this remarkable nursing program possible. In turn, this program produced some of China's best trained nursing pioneers who served as leaders in the most needed fields of public health, maternal and child health, teaching and administration. While the quality of PUMC nursing graduates was indisputable, the quantity was still very small.

To further validate the small number of nurses at this time, Balme (1917) reported that "there were no nurses in 80-90% of hospitals in China" around 1917 (p.693). Balme also described the situation in these hospitals as follows:

The truth of the matter is that they are not hospitals at all, in the modern sense of the term, they are merely hotels or inns, where the patient and his friends take up their residence while he is receiving the medical attention of the physician.... Every patient brought in his own bedding and clothing; his friends remained with him in the hospital to "nurse" him.(p.693).

Another very similar example was given by Chen (1989), which depicted the reality of a so called hospital during the 1930's:

The curtain at the room's entrance was very dirty; the air was putrid; and the basins at the bedside were filthy. No one seemed to look after the food for the patients, let alone give consideration to nutrition and cleanliness. As the drugs were kept by the patient themselves, there was no assurance they were taken care of properly. All this shows there existed no type of nursing. (p.28)

By the year 1919, with a population of approximately four hundred million Chinese, there were only about one hundred fifty nurses and two hundred fifty hospitals, i.e., approximately two hospitals for every nurse (Seracei, 1919).

This situation may have resulted from limited funding which came mainly from Western churches; a lack of teachers who were mostly Western physicians and nurses; and other social factors, such as the low social status and low educational level of Chinese women, which made recruiting female nurses very difficult in those early days of nursing education. Although the number of Chinese nurses was still small at that time, and they could make no immediate impact on the health of Chinese people, the efforts made by the missionaries to train native Chinese nurses was important because it was the only way to perpetuate professional nursing in China.

2.2.1 Chinese Nursing 1928-1937: Further Development and Expansion

The period from 1928 to 1937 was referred to as the Nationalist Decade in China. Following the death of the President of the new Chinese Republic, Sun Yat-sen, in 1925, two alternative political paths to the solution of China's problems emerged. The National Kuomintang Party led by Sun's military commander, Chiang Kai-shek represented one group of political power holders in China, and the Chinese Communist Party (CCP), which had been founded in 1921, represented an alternate model for China's development. At that time the struggle between the two forces began. The Nationalists were mainly supported by the Americans, both politically and financially. The Communists sought assistance from the Soviet Union. To escape persecution from the Nationalists, the Communist Red Army marched from southern China to desert provinces in northwest China, a journey which was called the Long March. In 1938, shortly after the Communists arrived at their headquarters in Yanan, the Japanese invaded China.

Although political and economic instability continued throughout the Nationalist Decade, it was "a period of ambitious planning for Chinese national development" (Lucas, 1982, p.58). From 1928-1937, the Nationalists chose Nanjing as their capital and governed most parts of China. The reformers in the Nanjing government focused their efforts on developing an integrated national network of state-assisted urban and rural institutions for economic reconstruction (Chen, 1989). This plan aimed to change China's backwardness--poverty, illiteracy, ignorance, and poor health. A national health care system was thought to be necessary, therefore, the Ministry of Health was formed in November 1928. The new Ministry of Health was assisted by two advisory boards: a domestic board of Chinese medical and public health specialists and political appointees, and an international council of "honorary advisors." New health programs were then planned that "emphasized the development of a rural-to-urban organizational network for the more effective development and distribution of modern health care services" (Lucas, 1982, p.8).

Chinese nursing during this period underwent further development. First, several government funded nursing schools emerged in order to increase the number of nurses. Second, nursing had a seat in the newly established the Ministry of Health. Third, the Chinese Nurses Association was, for the first time, headed by a native Chinese nurse. Finally, the Chinese Nurses Association made an effort to assure the quality of nursing education by registering qualified nursing schools. All these positive features of Chinese nursing grew out of the early missionary nursing education, and the new effort in health care reform by the Nationalist government.

During this period, the role of Chinese nurses expanded. Some of the nurses entered the public health sphere, engaging in immunization, health education, and the prevention of infectious diseases in both rural and urban areas. In an urban setting, the Peking First Health Station (PFHS) was established as a result of strong advocacy by an American public health expert, Dr. John Grant, who served as an advisor of the Ministry of

Health. The PFHS became a training field for Chinese medical and nursing students. In a rural setting, Dr. James Yen's Dingxian Mass Education Movement (MEM) and Dr. C.C. Chen's health care program provided the site where nursing students learned how to assess the health needs of rural peasants. The public health training experiences of these nurses made them realize that illiteracy, ignorance, sanitation, health teaching, and disease prevention were all part of their concern for improving the health of the Chinese people. By then, nurses were public health activists. Their public health activities were also seen as "an important step forward, indicating growing recognition of the profession and a trend toward upgrading quality" (Chen, 1989).

In spite of the progress of nursing during the Nationalist decade, many problems still existed. The number of nursing graduates was still too small to cover the vast territory of China, and the health needs of China's large population were far from met. In addition, the Nanjing government's constant competition with the Communists, the threat of Japanese aggression, and the poor economic situation, limited the extent of successful implementation of health programs such as PFHS and Dingxian's MEM. Nevertheless, the positive experiences gained from these programs laid the foundation for the future development of Chinese health care.

2.2.2 From 1938-1949: War Time Nursing

When the Japanese invaded China in 1937, the Nationalists and Communists formed a temporary United Front to fight their common enemy. In the early stages of the war, the Japanese quickly occupied many areas of China and forced the Nanjing government to move inland, to the southwest city of Chongqing (Chung King), Sichuan. While the Communists formed their resistance in various areas of rural Sha-Gan-Ning and Chin-Cha-Chi, which were both referred to as the Border Region. Their troops were named the Eighth Route Army.

Although the policies concerning health care continued under the Nationalist government, the ambitious national plan of medical care was disrupted, and war-time medical relief took priority. The war forced huge numbers of refugees and injured soldiers to Sichuan province for medical attention and safety. The West China Union University, which was founded in Chengdu, Sichuan, by Protestant missionaries from Canada, the United States, and Britain, served as the base for medical relief. A group of nurses were actively involved in the relief effort. Among them, the school of nursing at PUMC provided Chinese nurses with a proud legacy during this time of war.

When the Japanese invaded Peking in 1941, Vera Nieh was the dean of the School of Nursing at PUMC. She was the first native Chinese to occupy this important leadership position. Instead of remaining in Peking and being inactive, Dean Nieh and about ten other faculty members decided to move to West China Union University (Chen, 1989; Bowers, 1972).

Bowers described the experience of these nurses as they traveled to Chengdu, a distance of 1,500 kilometers. This journey was described as "1,000 miles to class" (Bowers, 1972). She wrote:

A small group of nursing students was enlisted, and faculty and students started out, traveling singly and in groups of two and three, having discarded their starched uniforms for tattered peasants' clothing. They rode burros or carts or trucks--any conveyance they were fortunate enough to find--but mainly they travelled on foot, just as others had moved westward in 1937....The "walk" to the classroom lasted for more than seven weeks, with little food, little rest, and constant fear of seizure by the Japanese.... (p.212).

Although in poor physical condition, once these nurses arrived in Chengdu, they worked day and night, seven days a week, to care for the refugees and soldiers. Not only did they serve the sick and wounded, but Dean Nieh also insisted that the educational programs be continued at the same high standards as at Peking (Bowers, 1972). While the

Nationalists continued to pursue the development of health care in Sichuan, the Communists in the Border Region were developing a more rural approach to health care.

Under Communist control, the people of the Border Region were among the poorest in China. Statistical records show that their health level was as low as the rest of the nation. The medical professionals in the area were more scarce than in Nationalist occupied areas. In addition, the people of the Border Region were isolated by a Nationalist blockade of vital supplies. Consequently, medical and surgical supplies were few. With all these difficulties at hand, the Border Region government had developed a multi-faceted program to improve the health of the area.

Concern for the people's health was highly regarded by the CCP. The health care policy established by the Communist government in the Border Region "proposed the expansion of public health administration, attempts to attract medical personnel, increase of supplies and equipment, and provision of medical care for disaster victims and refugees as well as ordinary citizens of the region" (Minden, 1979, p.302).

In terms of public health, many steps were taken under the public health administration. Opium smokers were taken to clinics for gradual withdrawal and rehabilitation. Farm land formerly used for opium was planted with sweet potatoes to increase the food supply. Extra meat, oil, vegetables and salt were given to expectant and postpartum women. The traditional Yang-ge dance, a form of folk dance in the northwest China, was used as a means of promoting sanitation. The lyrics of some Yang-de music were modified to promote sanitation. All these required no financial investment but did require time and effort. In addition to all the preventive measures, local production of medical supplies was encouraged even though the quality and the variety of products was limited. Some TMC practitioners were also encouraged to produce pharmaceuticals (Minden, 1979).

Despite all the efforts made to improve public health by the Communist leadership, the conditions in the hospitals were still far from adequate. Allan and Gordon (1952) described the situation as follows:

In the Western sense, there were no real hospital facilities for the communist 8th Route Army and the guerrillas. The "base hospitals" had a total of three hundred and fifty beds, but the beds weren't really beds.... The wounded lay on straw-covered, clay-topped K'angs. There were no hospital clothes for patients, so they remained in their dirty uniforms. The staff did what they could, but there were no adequately trained personnel among them (p. 199).

A few Western doctors gradually arrived in the Chin-Cha-Chi areas to help save some of the wounded. The Canadian doctor, Norman Bethune, arrived in Chin-Cha-Chi at the beginning of June in 1938. Bethune accepted an offer from the Chinese communist leadership to work as the Medical Chief of the 8th Route Army in Chin-Cha-Chi. He was also asked to be a medical advisor. He was soon aware of the kind of challenge he was facing. No anesthetics and no regular operating rooms were available for surgery. Bandages and all the locally made instruments had to be reused. Above all, there were no training facilities of any kind for doctors or nurses (Allan & Gordon, 1952).

Under such circumstances, Dr. Bethune organized lectures to train some staff with a basic medical background under the slogan of "learn while you work". He also founded a school, associated with the hospital, for the training of nurses and doctors. He designed a curriculum for the school to follow. Because there were no medical textbooks in all of Chin-Cha-Chi, he wrote his own simplified texts (Allan & Gordon, 1952). This initiative proved to be effective in turning out fast growing numbers of medical staff, who were diffused to cover the whole area of the Border Region.

The Anti-Japanese war lasted for eight years and finally ended in 1945. After World War II, the war between the Nationalists and Communists resumed. It took Mao Zedong and his Communist party four years of Civil War to destroy the Nationalist war machine

and force them to flee to the island of Taiwan. As a result, the People's Republic of China (PRC) was established under the leadership of Mao Zedong in 1949. The war-time model for health care and nursing continued in Communist New China because this was the model they had been exposed to, and by and large, it had worked for them in both the Anti-Japanese War and the civil war.

2.2.3 Degradation of Chinese Nursing, 1950-1957

From 1949 to 1957, a series of political campaigns had major social and economic impact. The direct or indirect consequences of these political movements for the health care system and nursing was inevitable.

Because the long-term enemy of the Communist leadership, the Nationalists, were supported by the Americans, anti-American sentiment was an obvious result. Additionally, China engaged in war with the United States in North Korea from October 1950, which escalated the anti-American and more general, anti-Western spirit. As a result, all the missionaries were expelled from China by the mid 1950's. Communication also was cut off between the Western world and China. Learning from the Soviet Union was the alternative.

Although most Westerners had departed from China by 1950, this was not the end of anti-Western campaigns. The victims of the following campaigns were largely Western-trained intellectuals, including nursing professionals. In 1951, the Communist Party launched the San-fan (Three-anti) movement "for reforming the thinking of urban intellectuals supposedly corrupted by bourgeois and Western thought" (Lucas, 1982). Again in 1957, the antirightist campaign followed the Hundred Flowers Movement. In the Hundred Flowers Movement in 1956/57, intellectuals were invited by the Communist Party to voice their opinions of the programs led by the government. The Party could not tolerate the criticism from the intellectuals; in turn the antirightist movement ensued. Some

intellectuals were labelled as "rightists" by the party, and then were sent to labor camps, and physically tortured. From that time, intellectuals as a whole, including doctors and nurses, were silenced. Public health thereafter was largely deprived of the influence of scientifically trained leadership (Chen,1989).

Assessing medical education policy after 1949, Lucas (1982) arrived at the conclusion that "the 1930s policy of educating medical personnel in terms of both quality and quantity continued throughout the 1950s" (p.97). While this might be true for medical training, it was certainly not the case for Chinese nursing. For nursing, the quantity may have increased somewhat, but certainly not the quality. To meet the urgent needs of a huge population, the Communists promoted mass training of paramedical workers.

By 1949, China had accumulated "41,000 Type 1 college-level physicians, pharmacists, and dentists, and 140,000 Type 2 intermediate-level medical graduates with three or four year's training as assistant doctors, nurses, advanced midwives" (Lucas, 1982, p.97). This resulted in a ratio of 1.0 to 3.4 of Type 1 to Type 2 graduates. By 1957/58, the ratio had increased to 1.0 to 4.1. The more rapid growing number of Type 2 graduates indicates that Chinese health care did not follow the post-World War II Soviet model with emphasis on longer, research-oriented medical programs (Lucas, 1982).

However, the health care administration in China did followed the Soviet suit after 1949 by exercising party control of all the health care organizations. In addition, reorganization of the professional associations was another step taken by the CCP for achieving ultimate control. This total control of Chinese health care professionals under CCP leadership had a strong impact on the Chinese health care system (Lucas,1982; Chen,1989).

For nursing, this change had some direct implications. First, the influence of Chinese Nurses Association on the health care system was limited. Second, the professional autonomy of Chinese nurses diminished. Following the party line became the reality for Chinese nurses.

By 1950, university level nursing programs had ceased. In turn, the Ministry of Public Health issued a document unifying the curriculum for training Type II medical workers, including nurses. One obvious reason for such change was the lack of awareness of nursing as a unique profession by the communist government. As described previously, the communist leadership had never been exposed to professional nursing before 1949. Likewise, because the idea of professional nursing was confined to a group of elite nurses, the Chinese people readily accepted the government policy. Nurses were left alone to fight against their loss of professional status.

Some nurses addressed their concerns about the future of nursing and the role and obligation of nursing to the Chinese Nurses Association. To respond to the concerns and demands of these nurses, in July of 1956, a special column appeared in *Health Reports*, a government controlled newspaper, in which nursing issues were discussed. Some commentary articles such as "Respect Nurses and What They Do," "Respect Nurses and Support Them" and "Solve the Problems in Nursing" also were published in *China Youth* and *China's most prominent newspaper, the People's Daily*. These articles drew considerable attention to the nursing profession. Consequently, at the end of 1956, the Ministry of Public Health prepared a document, "The Suggestions for Improving Nursing, A Draft." This document was studied by a delegation from regional nurses associations. Issues such as setting up continuing nursing educational programs for staff nurses and establishing undergraduate nursing programs were discussed. Neither the articles in the newspaper nor the document issued by the Ministry of Public Health, however, helped to reinstate the professional status of nursing and to gain back the respect by the Chinese public. The undergraduate nursing program was interrupted by the Cultural Revolution. In protest, some disappointed Chinese nurses left the profession for other work (Wang, 1986). The legacy of Chinese nursing in this period, then, was technically oriented training. Unfortunately, it was perpetuated into later periods as well.

2.2.4 Major Setback in Chinese Nursing, 1958-1977

In 1958, the Communist radicals launched the Great Leap Forward (GLF) campaign. With the ideology of national self-sufficiency, the emphasis was on mobilization for accelerated economic growth. The GLF had an impact on health care, especially in rural areas. According to Lucas (1982):

such mass mobilization efforts in the medical policy area focused on public health education about disease prevention and mobilization of local labor and materials for the construction of basic-level public latrines, washrooms, hygienic schools and health care facilities (p. 106).

The strategy to mobilize the masses in order to solve public health problems was familiar--the Border Region model. The impact of the GLF, however, was not restricted to rural areas, "the antibourgeois, antirightist, and antiexpert political rhetoric during the GLF period was intended to encourage red and expert specialists who would support the party's policy goals of strengthening party coordination over China's technical intelligentsia." (Lucas, 1982, p.108). The intellectuals who failed to identify or to follow this party line, in turn, were named "white expert" and were criticized. The GLF was an economic failure which led China in the early 1960s to a shortage of food, shortages of raw materials for industry, overproduction of poor-quality goods, and exhaustion and demoralization of the intellectuals (Shinn, 1988). Under such conditions, the elite nurses, who were trained before the Liberation, could not contribute to nursing development.

In the ensuing relatively quiet time, the moderate leadership in the CCP was in charge and the economic situation started to improve as well as the positions of intellectuals. However, it was interrupted by the outbreak of the Cultural Revolution in 1966.

The Cultural Revolution again was led by Mao Zedong and his radical followers. The movement resulted in social changes as well as ideological debate. According to Mao, a "social change was more a result of class struggle than of impersonal industrial expansion and technological innovation." (Andors, 1983, p.101). The ideological debate was focused on the subject of equality. Questions were asked--what were the origins of inequality between rural and urban areas, between mental and manual labor, between worker and peasant (Andors, 1983)? The debate was open, and sometimes violent when people could not agree with each other. In early 1967, the purge of "Counter-revolutionary revisionists" started with a charge of "taking the capitalist road" for the reason that their policies stressed the increase in production and economic growth. The power struggle of the moderates and radicals in the communist party was generally referred to as the "two line" struggle. In terms of the health care policy, this period was marked by a reorientation of medical resources and policies to serve the people in the countryside.

In responding to Mao's call to serve the people in the countryside, the mobile medical team, which was usually made up of physicians and nurses, went to the rural areas. This was thought to be the way to improve rural health, however, it proved ineffective. Because these mobile teams could only stay short periods of time, they could not address the needs of large rural population. The alternative was to develop Type III medical personnel, the "barefoot doctors," and Type IV, the "village health workers" in 1965. Barefoot doctors usually trained for two to three years whereas village health workers only trained for two or three months. The number of Type III and Type IV health workers increased dramatically during the Cultural Revolution, which led to a three-tiered rural health care system: from the county health bureau to commune and then to village-level health care facilities (Chen, 1989; Lucas, 1982). Through the massive immunization done by these barefoot doctors and village health workers, decisive progress was made in controlling infectious disease.

During this period, the quantity and quality of Chinese nursing declined and the nursing role in the health care system was limited during the Cultural Revolution. With the great debate ongoing, the normal educational process was destroyed. For about four to five years, most of the nursing schools had no graduates. Nursing journals were banned and textbooks were burned. Some of nursing administrators and the teaching staff were charged with being "capitalist roaders," "counter-revolutionaries," or "American spies." In some instances, they suffered a great deal both physically and mentally and some were even tortured to death. In hospital nursing practice, the obligations of different health care workers and regulations of health care practice were abandoned. This no doubt jeopardized patient care, and, in fact, the rate of medical accidents increased. In public health, nursing had very limited participation compared even to the 1930s because the role of nurses in rural public health was taken by barefoot doctors and village health workers.

2.2.5 From 1977-Present: Reconstruction of Chinese Nursing

The period from 1977 to present is referred as the "post-Mao" era. Following Mao's death and the imprisonment of the Gang of Four, Deng Xiaoping and his reformer leadership finally consolidated their control in China. The reformers' open-door policy welcomed foreign exchanges and their campaign of economic modernization aimed at bringing China into the ranks of relatively advanced, industrialized nation by the year 2000. With an awareness that intellectuals' role in their plan was crucial, Deng's government has openly advocated respect for intellectuals (Chen, 1989). As a result, the input of intellectuals in economic development and the health care system has been valued to a certain extent for the first time since 1949.

With the door now opened to the Western world, numerous new technologies have flourished in China. Many of these have influenced the health-care policy of the "post-Mao" era. Although the three-tiered health care system of both urban and rural areas has

continued, emphasis on medical research and importation of the most advanced medical equipment is on the rise.

Chinese nursing has also benefited from the open-door policy. Foreign exchange programs have served to broaden the horizons of Chinese nurses, introducing new nursing technology to the Chinese, and more importantly helping to train badly needed teachers, administrators, and leaders for Chinese nursing. Nurses trained in 1930-1950 are still today's leaders though they are in their sixties and seventies. They are the ones who are advocates for nursing. They are the ones who restored and taught college level nursing after 1978. In the hospitals, they are the ones who have reinstated regulations for younger nurses to follow. Overall, they have been, and continue to be, the backbone of Chinese nursing. Until a large group of well trained nurses, trained either in China or abroad, are spread throughout China's vast territory and among the huge population, one hardly can expect any fundamental improvements in Chinese nursing.

2.3 Women and Nursing

2.3.0 Sociocultural Barriers Preventing Women From Entering Nursing

Nursing in China has been through a transition from a corps of Western nurses to Western-trained Chinese nurses, and also through the transition from a male-dominated trade to a female-dominated profession. This section examines the factors which hindered female participation in nursing at its early stages. Some of these deeply-rooted attitudes continue to influence the development of the nursing profession. Chinese women for centuries were regarded as inferior to Chinese men. Because of their inferior status in society, women's educational level was lower than men's. The social norms or customs in traditional China allowed limited interaction between males and females. All these factors have contributed to the difficulties of entering nursing for Chinese women.

According to Chinese cosmology, women were categorized as "Yin" which stood for weak, dark and passive. Men were described as "Yang" which represented strong, bright and active (Curtin, 1975, Ayscough, 1975). This ideology was deeply rooted in traditional Chinese society. Accordingly, women, it was believed, ought to stay at home and be obedient to their men. In a woman's life, the Three Obediences were real. Before a woman was married, she was under the authority of her father and brothers. After she married, she was controlled by her husband. Finally, if she became a widow, she was subject to her oldest son. Even the illiterate rural male peasants knew women were under their control (Wolf, 1985). Women had no place in public life, not to mention posts in government. For the majority of rural and urban Chinese women, their domain was at home serving men, bearing and rearing children, preferably male children. The custom of foot-binding was another factor which contributed to keeping women at home. The process of foot-binding had to start early in a female child's life and was extremely painful. The end product of the foot-binding was a foot reduced to three inches in length from heel to toe. With the kind of injury caused by foot-binding, no women could run fast or walk long distances, consequently they had to stay at home. Ironically, this custom was romanticized and was seen as a mark of gentility (Curtin, 1975). Most astonishingly though, this custom survived for thousands of years from the Song Dynasty (960 to 1279 A.D.) until 1911 (Snow, 1967).

Given that Chinese women had an inferior social status, their low level of education was inevitable. Practically, parents did not see any benefit in educating their daughters. Once the daughter married, she no longer stayed with her parents but with her husband's family. Therefore, the daughter could make no contribution to the wealth of her natal family (Burton, 1911; Wolf, 1985). Furthermore, women who had some education were seen as potentially troublesome, because they were less likely to be obedient and content. Consequently, education was perceived as a barrier to a woman finding a husband (Wolf, 1985). An equally important reason for the low educational level of women was the low

estimate of women's mental ability. According to Burton (1911), one of the Chinese fathers responded to the request to send his daughter to a missionary school by saying: "Can you teach that horse to read and write? If you cannot teach an intelligent horse, what can you expect to do with a woman?" (p.31). This degrading of women's intelligence was so strong that women themselves accepted it as a matter of truth. When a group of women were asked if they would like to go to school, these were their words: "men read, but women work" (Burton, 1911, p.31). The notions that women were not educable and not worth the trouble were perceived as a fact by the majority of Chinese.

Not only the low status and low educational level of Chinese women hindered their early participation in nursing. The social norm of segregated sexes made working in such occupations more difficult for women. Girls were not supposed to be seen walking alone on the street. Girls and boys walking together and going to the same school were even more incredible notions (Burton, 1911). For parents to allow their daughter to work in a public place (such as a hospital) with a male patient, or even worse, to have their daughter touch a male patient, seemed unthinkable.

The low status and low self-esteem of women in traditional Chinese society resulted in their not being educated. These factors along with the social norms helped to explain the nonparticipation of Chinese women in early nursing development. This analysis also suggests, that if Chinese women wished to enter nursing, these blocks had to be removed. In the next section, the forces which made it possible for women to enter nursing will be discussed.

2.3.1 Break Through

History has proved that for Chinese women to enter nursing was not an incidental event but rather a predictable occurrence. When missionaries opened their first girls' school, organized campaigns of against foot-binding campaigns, and set examples of

female and male interaction based on democratic ideas, Chinese women were for the first time exposed to a new way of looking at themselves and the world around them. The first group of Chinese women who felt discontent about their situation was the urban female in the upper class families. In fact, little impact was made by Western missionaries on China's inland rural areas, where old ways continued (Wolf, 1985; Andors, 1983). Therefore, we shall focus our discussion on the women who had a chance to be influenced by the new ideas brought by the Westerners; because the first group of female nurses were certainly members of this group of women, who fell under direct Western influence.

To start a girls' school was extremely challenging in traditional China, however, some missionary girls' schools did manage to get started by offering small amounts of money to parents and providing food for the girls, and also by recruiting street orphans (Burton, 1911). The resistance to missionary girls' schools broke down when the parents saw the benefits. Most of the girls who graduated became teachers or went on for further professional training such as medicine and nursing. No matter what these young women did in their later life, they all had a potential of earning a decent salary. The ultimate success of missionary girls' schools was obvious. These schools proved that not only can girls learn, but they can learn well. Later, an admission fee was required by missionary schools, because the applications were overwhelming (Burton, 1911). Government sponsored girls' schools soon emerged, and there was no turning back on the education of Chinese women after that time.

Educated Chinese women equipped with knowledge about the world, reasoning ability, and a capacity for financial independence were proud, strong, and confident. These women later actively participated in the demand for social and cultural reform in the May 4th Movement in 1919. Changes followed. People no longer were surprised to see girls go to day school. Young boys and girls sat in the same classroom and were taught by a male teacher. For the first time in China's history, females and males were less segregated. This much more relaxed climate enabled a group of brave females to enter nursing. As the

numbers of female nurses increased, the number of male nurses dropped. One source (Bowers, 1972) suggested that the broadly accepted perception that women make better nurses was the cause of this change. No information was found on exactly when females started to make up the majority of nurses in China. However, we do know nursing has been widely accepted as a female profession in China, and such a perception continues. In fact, few people, including nurses, are aware of the early male nursing activities in China.

2.3.2 A New Society and New Challenges

With the founding of New China in 1949 (referred to as "The Liberation,") women's issues were given high priority by the party leader, Mao Zedong. His famous saying about women--"Women hold half of the sky"--is known world wide. Until Mao's death, his ideology set the tone for the government's policies on women's issues.

After the Liberation, the government introduced the Marriage Law (1950) which legally freed women from arranged marriages. Later the Land Reform campaign gave women the means of financial independence by giving them the right to own land just like men. Women were encouraged to participate in socialist production by entering the labor force during the Great Leap Forward campaign. The ideology has been equal pay for equal work for working women. During the Cultural Revolution, although the central debate was not related to women's issues, the general debating theme of inequality among classes still provoked consideration of equality for women (Andors, 1983).

In the post-Mao era, the population has reached new heights, and the underdeveloped Chinese economy can hardly accommodate so many young people waiting for jobs. Unemployment has become a real threat to China's stability. In such a difficult situation, the government, through the Chinese Women's Federation, redefined the tasks of women under the "four modernizations" which emphasized women's role at home in the form of early retirement and so on (Andors, 1983). Although the basic party ideology and

government policies towards women have continued to encourage women to participate in socialist production, in political campaigns and in party work, there has been a recent shift of emphasis on women's family role.

The reality of a woman's life though has been another matter. Regardless of ideology, women still find themselves mostly in low paying jobs (Andors, 1983, Wolf, 1985). Even educated and experienced female workers, by and large, get no promotion or much slower promotion than male workers (Wolf, 1985). Women still find themselves less represented in the Communist Party and in vital government positions or important decision-making departments. They are less likely to be the leaders at various levels in their working unit. Many women now have to manage two jobs--one at the *Dan Wei* (working unit) and another at home. Few women have achieved the level of leaders in important government positions, and when they do, rather than being treated as normal, they are more likely to be considered heroes and superwomen (Andors, 1983).

Nursing as a female profession in China shares much of the burden of contemporary Chinese women. For example, nurses are less educated than their medical colleagues. Nurses are also less represented in the Ministry of Public Health, which means less opportunity for nurses to participate in important decision-making processes. Due to these factors, nurses' destiny is decided by others. In addition, nurses have found themselves less respected by the public, and their self-esteem as a group is lower than physicians. Equally important, nurses find themselves playing a much narrower role in China's health care system than doctors. All these factors may help to explain the low expectations of the nursing role by nurses themselves and by others. Because the problem of inequality still faces Chinese women in reality, and because nursing remains primarily a female profession, the inequality of females has been a major factor contributing to the problems associated with contemporary Chinese nursing.

2.4 Nursing Function Studies in North America

In the early 1950s, North American nurses started to reexamine the basic concepts of modern nursing. Questions, such as "what is nursing?" "what do nurses do?" and "why nursing is different from medicine?" were raised.

A series of nursing function studies were carried out in the ensuing years in the United States, because the American Nurses' Association was searching for a solution to the nursing shortage. The assumptions behind these function studies were that by removing certain time consuming tasks from the nursing sphere, and giving these tasks to some less trained personnel, the problem of the nursing shortage would be solved. These studies, then, were primarily designed to answer one question: "what do nurses do and how much time do nurses spend on each nursing function?"

Gordon (1953) reported a study of timed nursing functions, in which observation techniques were used. The study was devoted to a compilation and categorization of nursing activities, along with the amount of time devoted to each by the different levels of nursing personnel. The result of the study is valuable in the sense of finding out what were the existing patterns of nursing service in the hospital. Similar investigation was conducted by Carmell et al (1952) in twelve hospitals in the state of New York. The same investigation was also extended to study psychiatric nursing functions (Burke, Chall, & Abdallah, 1956). Recommendations were made on how nurses should spend their time more efficiently. However, using such a method, the study produced a large quantity of data, and the findings presented a very confusing picture of "who does what?" (White, 1971). Also it was very time consuming to conduct such observation studies

One step beyond, researchers asked questions such as "what should nurses do?" By asking this question, they attempted to address what patients, physicians, the general public, and nurses themselves think a nurse does, or should do. Using interview techniques, Lesser and Keane (1965) conducted a study to address this issue. Their study

revealed that patients frequently think nurses are not interested in them, but are concerned merely with helping the physician and getting the work done (Lesser & Keane, 1965). Their research also indicated that nurses thought patients wanted them to be clinicians, whereas patients indicated they wish nurses to be kind, courteous, and attentive (Lesser and Keane, 1965). Similarly, Gruendemann (1970) interviewed twenty-five full-time operating room nurses in order to find out what functions (activities, duties) and roles the operating room nurses should perform. The findings, content analyzed, indicated that a majority of the sample of nurses was primarily concerned with patient welfare and safety and with perceived aspects of patient care, rather than technical, assisting activities. A significant number of these operating room nurses also stated they would like to have a broader perspective of patient care in their work. This type of study adds a new dimension to the nursing function study, that is, the perception of patients and nurses themselves regarding nursing functions (Gruendemann, 1970).

Based the above function studies, the third question was asked by the researchers, that is, "Is there an agreement between patients and nurses concerning nursing functions?" The assumption behind these studies was that the more consensus between nurses and patients, the better nursing care would be. The method used in these function studies was a survey questionnaire. In this way, a large number of people including patients, physicians, the general public and nurses themselves could be included in a study. Data collection was also less time consuming.

The most extensive of such investigations were conducted by Abdellah and Levine in 1958. They developed a device for reporting specific incidents of omissions in nursing care, assuming that the greater the number of such incidents, the greater the dissatisfaction with nursing services. The instrument was a checklist of fifty statements expressing primarily negative feelings or occurrences. These were administered to approximately twenty thousand patients and nurses in sixty hospitals (Abdellah & Levine, 1958). It was not possible, however, for the investigators to compare the satisfaction scores of patients

with those of nurses because the former reported only on the patient him/herself and the latter reported on any patient by the nursing staff. Nonetheless the instrument was used to study the factors that appeared to affect respondents' opinions of their nursing care, for example, patient characteristics, hospital characteristics, and primarily nurse staffing patterns (White, 1971).

A similar study was conducted by Whiting and Whiting (1962) for the purpose of identifying a "generic core of nursing." They collected data on the perceptions of patients and nurses concerning the importance of one hundred commonly performed nursing activities. A significant finding was the high agreement among nurses working in hospitals. Another statistically significant finding was the difference between the views of the patients and nurses. Geographical location, type of hospital, and basic education of the nurse seemed to make no substantial difference in the responses.

These studies raised an interesting question, that was, the nurse respondents were asked to indicate which nursing activities they considered to be of high, of medium, or of low importance for a nurse to carry out. They were expected to respond in the context of the hospital situation in which they were working, but not with reference to any particular patient (White, 1971).

As White (1972) remarked:

Common sense dictates that, even on a single unit in a given hospital, all activities are not equally important for all of the patients all the time. A nurse cannot make a judgement concerning the importance of an action without placing it in the context of a patient situation. Certain factors, such as diagnosis, stage of illness, age, sex, and other, can be expected to have a bearing on the importance ascribed by nurses and also by patients to selected nursing activities (p.8).

Therefore, White (1972) designed a tool in which 50 statements of nursing activities were included to measure the agreement between nurses and patients on these

selected nursing activities. The fifty statements were classified into four categories: a) physical care, b) psychosocial aspects of care, c) implementing medical care, and d) preparing for discharge. In the study, the nurse and her three patients were paired for the purpose of comparison regarding the selected nursing activities. Three hundred adult patients and 100 nurses participated the study. The results of the study revealed that patients were more concerned than nurses with their physical care, nurses had greater concern than patients for satisfying psychosocial aspects of care, both nurses and patients highly agreed on the importance of the nurse carrying out the doctor's orders, and both test groups found preparation for discharge of relatively little importance (White, 1972). The results of testing the relationship between the characteristics of participants and their rating scores were all negative.

Two years later, a similar study was conducted by Yang (1974) in Iowa state. Ninety adult patients and thirty nurses were included in her study. The results of Yang's study are almost identical to White's. Boyle, Moddeman and Mann (1989) also used the same method as White's study but with a newly developed questionnaire based on updated nursing practice in the 1980s. This new instrument had the same four original categories of nursing activities as White's instrument but used 36 statements rather than 50, with nine items under each category. One hundred fifty patients and fifty nurses participated in this study. No statistical difference was found in comparing the scores of nurses and patients for activities of either physical care or preparing for discharge. However, patients saw more importance in the category related to implementing medical care than did the nurses, while the nurses saw more importance in the category of psychosocial care. Still much of the results validated White's study. Using a similar design, which will be presented in the next chapter, the present study was guided by role theory, and the data were collected in China. Different results from White's study were anticipated in the present study because of the different culture, different nursing history, and different current status of nursing in China.

2.5 Summary

In this chapter, the development and present status of Chinese nursing has been discussed. In reviewing current nursing practice, four characteristics of Chinese nursing were revealed: 1) the unclear role of Chinese nursing in the health care system; 2) the employment of most nurses in hospitals; 3) the technically orientated nursing functions; and 4) the severe shortage of nurses. A brief review of 100 years of Chinese nursing history helped to understand these current characteristics. At the end of this chapter, a review of nursing function studies provided direction for choosing the methodology for this study. The results of these studies will serve as a comparative background for a discussion of Chinese nursing functions.

CHAPTER 3

RESEARCH DESIGN

3.0 Introduction

A non-experimental, survey-type research design was used to conduct this study. The purpose of the study was to identify and compare the importance of selected nursing activities perceived by Chinese nurses, physicians, and patients. The theoretical perspective guiding the study was role theory.

As Biddle and Thomas (1979) state, in the field of role theory and research, a subjective self-report method or questionnaires of survey-type design have dominated the reported research. This study has taken a similar approach. Likert-type scales are commonly used to design questionnaires by which individual attitudinal responses to certain social objects are collected. In the case of this study, the perceptions (attitudes) of the importance of selected nursing activities were gathered using a Likert scale. Although there is the lack of consensus as to whether the Likert scaling technique produces ordinal or interval-level data, research suggests the Likert technique can provide data on attitudes equally as valid and reliable as other techniques but with greater economy as to the time required for instruction and grouping of subjects (Barcaly & Weaver, 1962; Nunnally, 1978).

Included in this chapter is information about the study sample, the instrument, ethical considerations, and data collection procedures.

3.1 The Study Sample

3.1.0 Location

The study was conducted in a teaching hospital in Chengdu, Sichuan province, China. Sichuan is located in the southwest of China and Chengdu is the capital of this province. Chengdu has two urban districts (eastern and western) and three suburban areas (Jinniu, Longquanyi and Qingbaijiang). In 1984 its total population was 8.539 million (State Statistical Bureau of the People's Republic of China [SSB of the PRC], 1985).

With a temperate climate, a short frost period (less than 60 days), abundant rainfall, fertile land and good irrigation conditions, Chengdu's outskirts are an important farming area. The city also established an industrial system with machine-building, electronics, metallurgical, food-processing and light industries playing the major role. Chengdu's infrastructure is relatively strong. The city is one of China's six big telecommunications centres. Chengdu's railways and air transport connect the city to the rest of China. As well direct flights provide linkages with Hong Kong. The water supply in Chengdu is adequate with an annual water supply capacity of 138.58 million tonnes. The municipal transportation system is less adequate with a total of 679 buses and trolley buses (SSB of the PRC, 1985).

Chengdu has always been an intellectual centre, therefore the city has more intellectuals with international contacts than other cities in Sichuan. Until 1984 Chengdu had 15 institutions of higher learning with 34,000 students (SSB of the PRC, 1985). Compared to Beijing and other coastal cities, however, Chengdu has a more traditional and conservative culture, less influence from the West, and is relatively isolated largely due to its geographic location deep inland in China.

In 1984, Chengdu had 1,650 medical and health institutions including 571 hospitals with 23,000 beds. The city has 43,000 medical workers, 18,000 being doctors. The rate of medical workers to population is 5:1,000 (SSB of the PRC, 1985).

The teaching hospital in this study is a tertiary care centre with approximately 1,100 beds. The university with which this teaching hospital is affiliated is the site of a Canadian International Development Agency (CIDA)-sponsored cooperative project to develop nursing education in China. With the contacts in place, it was possible to implement this study.

The structure of this teaching hospital is similar to other teaching hospitals in any other urban centers. Henderson and Cohen (1984) described their experience in the teaching hospital attached to Hubei Provincial Medical College. They pointed out that "events in medicine and public health were a microcosm of the larger political scenario" (p 3) and hospital leadership represents the Chinese government at the local level. Because the structure of health organizations were predetermined by the central government, all the teaching hospitals in China similar in terms of their structure and policy. Differences among the hospitals may exist because of the reforms which have been in place for a number of years in China.

The participants in this study consisted three groups of Chinese people: patients, nurses, and physicians. All the subjects for this study came from medical, surgical, ear-nose-and-throat, and traditional Chinese medical wards of this teaching hospital. The reasons for choosing subjects from the above wards were as follows: 1) a broad range of nursing activities were carried out on the selected wards, 2) more focused or specialized nursing activities on the other wards were avoided, and 3) accessibility of the selected wards was assured by the Director of Nursing Service at the hospital.

The traditional medical ward is not a unique phenomena in Chinese hospitals, however, it may be a new concept for Westerners. Techniques of Western and traditional Chinese medicine both are applied on this ward. Nurses carry out the same functions as they do on the general medical or surgical wards, however, they also help patients with the preparation of herbs for used in TMC.

3.1.1 Criteria for Selection

The selection criteria for patients were: 1) adults (18 years of age and over), 2) able to participate--not physically or mentally incapacitated, 3) able to read and comprehend Chinese, 4) admitted to the hospital for at least two days; 5) not placed in isolation; and 6) not slated for surgery on the day of the study. These criteria for selecting the patients were based on two concerns: one was to protect the patients, and another was to assure the quality of the study. For example, excluding patients who had surgery on the same day of study was to relieve them from additional stress. For the same reason, patients who were physically or mentally incapacitated and who were placed in isolation were not included in the study. Excluding the patients who had less than two days of hospitalization was intended to safe guard the quality of study by only including subjects who had at least two days of nurse-patient interaction. Patients who were not able to read and comprehend Chinese were not included in the study because these skills were required for completion of the survey.

Nurses and physicians selected for the study met the following criteria: 1) they were engaged in direct care of the study patients; 2) they held an official title of nurse/physician in China. The reason for only including the nurses and physicians who engaged in direct care of the study patients was that their views were considered more valid than those of nursing or medical administrators or educators.

3.1.2 Sample Size

The larger the sample, the more representative of the population it is likely to be (Hungler, 1983). A power analysis was conducted and it was determined that a sample of 500 subjects would provide statistical tests with a 99% power to detect significant results. Based on this information, 100 nurses, 100 physicians, and 300 patients were selected as subjects for the study.

3.1.3 The Paired Sample

Among the 500 subjects, the 100 nurses and 300 patients were paired. This meant that one nurse identified three patients who were under her direct care. In so doing, each nurse was paired with her three patients. The purpose for this approach was that the paired sample may produce information which may not be detected by pooling subjects. The 100 physicians were not paired with their patients, however, they were from the selected wards to represent a broad view. Figures 1 and 2 help explain the sample frame.

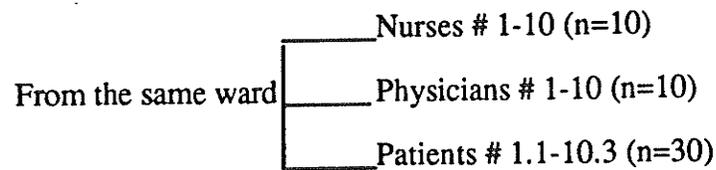


Figure 1. The subjects from the same ward

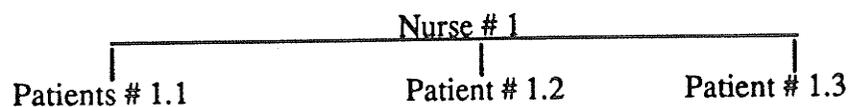


Figure 2. The paired subjects of one nurse and her three patients

3.2 The Instrument

3.2.0 History of the Instrument

The instrument used in this study was adapted from a questionnaire developed by White (1972). White's questionnaire includes 50 statements about selected nursing activities. These nursing activities are classified into four groups. These are nursing activities related to: 1) physical care, 2) psychosocial aspects of care to meet nonphysical needs in the immediate situation, 3) observing, reporting, and implementing medical care, and 4) preparing the patients for discharge.

The items in this questionnaire were based on a review of the literature, statements from nursing leaders and professional organizations, nursing textbooks, nursing function studies, research reports, interviews with patients, and interviews with nursing clinical specialists. From these various sources, four groups or categories of nursing activities were developed. Under each category, a list of simple, concise statements covering a wide range of activities was prepared by White. The list of 74 items was submitted to graduate nurses (doctoral candidates, nursing school faculty, nursing practitioners) and former patients for editing. Suggestions for additional activities also were solicited from these groups. As a result of this consultation process, a list of 95 items was developed (Ward & Lindeman, 1979).

Selection of items for White's revised list was based upon two criteria: the completed instrument should contain a sufficient number of items to represent each category adequately, and the instrument should be short enough to minimize fatigue and maintain the interest of the respondents. Fifty-six of the 95 statements were selected as being the most significant and the most appropriate at the time by White (Ward & Lindeman, 1979).

A pilot study followed in which the 56 item instrument was administered to nurses in three hospitals in order to test for clarity of instructions and items, length of time for completion, and overall reaction to the instrument. Following recommended changes by participants of the pilot study, a revised instrument was submitted to 12 graduate nurses selected on the basis of their clinical nursing competency. Following their review, the instructions for the instruments were revised and a few items were added, several items were deleted, and others were clarified. This revision resulted in the final 50 items of the instrument (Ward and Lindeman, 1979).

3.2.1 Reliability and Validity of the Instrument

No information confirming the reliability of the instrument was provided by White (1972) who originally designed the instrument. Content validity was established by the steps described under the procedures for development (Ward & Lindeman, 1979).

Content validity was of concern in the present study because the instrument was developed in a different cultural milieu. In order to check upon the feasibility of using an instrument from a different culture, a panel of head nurses from the teaching hospital in Chengdu were invited to review the questionnaire. The criteria for evaluating the questionnaire (Appendix A) were used to guide the discussion. The atmosphere was friendly and the discussion was lively. Once acquainted with the 50 item questionnaire, a few of the head nurses had some difficulties with item No. 30 ("arrange for his priest, minister, or rabbi to visit him") and No. 31 ("make it possible for him to observe his religious practices in the hospital"). These two statements related to spiritual care. Since religious practices are not prevalent among the Chinese, and religious beliefs are socially and politically negated under the current government, the head nurses viewed these items as meaningless to nurses and patients, and considered that they might confuse the participants.

Statements No. 30 and 31 therefore were deleted, and the original 50 item questionnaire was shortened to 48 items (Appendix B).

3.2.2 Discussion of the Instrument

A significant concern in using White's tool was whether the instrument has suffered historical decay since it was first developed in late 1960s. As Boyle, Moddeman & Mann (1989) noted "although some of it was relevant for this decade, much was outdated" (p.173). For example, as a result of this concern, in the study of Boyle et al (1989), a new questionnaire was designed with 36 items, nine in each of the original four categories. Content validity of their new questionnaire was established by submitting the questionnaire to practicing nurses and recent patients.

In this study, however, White's original tool was slightly modified and used. As identified in the review of the literature, a substantial gap exists between nursing in China and in the West. This suggests that Chinese nursing is many years behind Western nursing, although the exact nature and extent of this time lag is unknown. Therefore the use of White's questionnaire was judged to be still justified in China today.

Another area of concern was the accuracy of the translation of the questionnaire from English to Chinese. Since the researcher is a native Chinese and did all the translation herself, this hopefully reduced the error to some degree. As an additional check, both the English and Chinese versions of the questionnaire were submitted to the person who was in charge of the office of foreign affairs at the teaching hospital. Since this person comprehends both English and Chinese very well, she checked the accuracy of the translation. Lastly, the Chinese version of the questionnaire was taken to the head nurses at the teaching hospital to check on the clarity of the items and their meaning. At the conclusion of the procedures described above, the questionnaire were distributed to the subjects.

3.3 Ethical Considerations

Prior to data collection, the study received approval (Appendix C) from the Ethical Review Committee of the School of Nursing, University of Manitoba.

Of concern here was the right of the participants to know what is expected of them in the study, and also to protect them from any harm. Therefore, a clear and detailed explanation of the study outlining risks and benefits was provided to the subjects.

To access the hospital, two letters (Appendix D) were sent to the president of the teaching hospital. The first letter was composed by the researcher and written in Chinese. The second letter was drafted by the thesis supervisor and written in English. In both of letters, the researcher was identified and the rationale for conducting the study was outlined.

Verbal permission was first granted and later an agreement (Appendix E) was signed. The details of this agreement are provided later in this chapter. After permission for access was granted, the head nurses from the selected wards were approached and an explanation of the study was provided to them. The researcher explained that confidentiality and anonymity of the study participants would be maintained in the following manner:

- a. The participant's name would not appear on the questionnaire. Only assigned identification numbers were used on the questionnaires.
- b. Any information that might identify the participants would not be revealed.
- c. No references to particular subjects would be made in presentations or publications ; only group data would be used.

The head nurses then approached their nursing staff and physicians in the selected wards. An explanation of the study's purpose, the questionnaire (including the general content and the time needed for completion), and maintenance of confidentiality and anonymity were provided concurrently with the disclaimer (Appendix F). The subjects consisted of nurses and physicians who volunteered to participate in the study. After

obtaining these participants, an introduction to the study was offered to the patients by their nurses. Only patients judged by the nurses as physically, emotionally and mentally fit were recruited for the study. All potential patient-subjects received the disclaimer, the instruction and the questionnaire. Verbal consent to participate was obtained from the patient by their nurses.

The researcher ensured she was accessible to the participants by providing her telephone number and address to the Director of Nursing Services. All questions regarding the study were promptly answered. The researcher also reminded the participants not to put their names and other information that could identify them on the questionnaire. The subjects were informed that they did not have to complete the questionnaire and were free to withdraw at any time during the study. The researcher also assured the participants that their identity would not be revealed in any fashion .

3.4 Data Collection

In June of 1990, the researcher and one of her committee members, Dr. Janet Beaton, were both at Chengdu. A verbal request for permission to access the study sample was made to the Director of Nursing Services at a teaching hospital in Chengdu. The researcher provided a brief verbal introduction of the study to the Director. The Director of Nursing Services then approached the President of the hospital.

Several days later, the researcher was told that she must submit her proposal and a letter from Dr. Beaton to the head of the foreign affairs office at the hospital in order to initiate the process of formally applying for access. In response, Dr. Beaton immediately addressed a letter to the President of the hospital. In the letter, she identified the researcher as a graduate student from the School of Nursing at the University of Manitoba, noted the significance of the study, and sought permission to implement the study. The researcher

also wrote a letter in Chinese to the President to identify herself and request access to the hospital. The study proposal was submitted as well.

After verbal permission was granted, the Director and an associate Director of Nursing Services at the hospital organized a meeting for a group of head nurses. The head nurses (n=14) were from medical, surgical, otolaryngological and traditional Chinese medical wards. These wards were decided to be appropriate for the study based on mutual agreement between the researcher and the Directors of Nursing Services. Dr. Beaton and the researcher both attended this meeting. Three objectives were set for this meeting. These were: 1) orienting the head nurses to the study, 2) assessing the instrument by the head nurses, and especially, 3) discussing ethical considerations with the head nurses.

As a result of the meeting, a disclaimer, instructions for completing the questionnaire, a demographic profile, and a revised instrument which had 48 items were put together as a package. Later, this package was typed in Chinese and 510 copies were printed at the hospital print-shop. A second meeting with the head nurses was organized. Ethical considerations for the subjects were again emphasized by the researcher. At the end of this meeting, the questionnaires were distributed to the head nurses.

The head nurses then introduced the study to the nurses and physicians on their selected wards. Nurses and physicians who volunteered were given copies of the packages. Participating nurses then took three copies of the package to their patients who met the criteria, and introduced the study to these patients. Three patients who volunteered and gave verbal permissions to their nurse filled out the questionnaires. After the questionnaires were completed, the patients returned them to their nurses. The participating nurses and physicians returned the questionnaires to the head nurses. The head nurses then returned the questionnaires to the Office of Nursing Services.

The coding process began when the first questionnaires were returned to the researcher from the Office of Nursing Services. The researcher started out coding the data by herself and managed to finish half of the whole data. She was eventually joined by three

other nurses provided by the nursing services at the hospital to meet the time frame associated with the study. The three nurses who helped with coding the data, were trained by the researcher. The researcher worked with these three nurses daily for three days in order to complete the coding of other half of the data and check once more on the accuracy of the data. Only the coded data were then brought back to Canada by the researcher.

Since the data collection involved a large sample, a short time-frame, and was conducted in China, establishing good communication, mutual respect, and trust with the people at the Chengdu hospital was crucial to the success of this research project. The willingness on the part of the researcher to make compromises was as important as other factors to gain the cooperation and support of the local people.

To this end, the researcher complied with the local authorities by submitting her proposal and the letters to the hospital officials. To develop a sense of trust, the researcher requested that the Director of Nursing Services chose the wards for the study. Although E.N.T. and traditional Chinese medical wards were not originally planned for the study, the director stated that other wards were too busy for any studies. In addition, she reassured the researcher that nursing activities on these two wards were very similar to general medical or surgical wards which were originally designed for the study. The researcher agreed that only coded data would be brought back to Canada. The researcher also consented to have the head nurses and staff nurses distribute the questionnaire rather than the researcher herself. The Director of Nursing Service argued that: 1) the researcher might be identified as a "outsider," and would not be trusted by the proposed subjects, and 2) the researcher might interfere with the order of selected wards by bringing in questionnaires. The researcher then negotiated with the Director of Nursing Service and was granted permission to go to the selected wards and answer questions for the subjects.

3.5 Summary

In this chapter, the advantages for choosing the survey design for this study were given. The sample of the study and associated selecting criteria were presented. The instrument was also discussed in detail in terms of its origin, its validity and reliability, and its modification. The ethical considerations for this study were described. The process of data collection was a unique, because it was completed in China. For this reason, detailed procedures of data collection were described and a discussion of these procedures were provided in this chapter.

CHAPTER 4

RESULTS

4.0 Introduction

In this chapter, statistical tests used to analyze the data and findings of the study are presented. The instrument used to collect data was a Likert-type scale with 48 statements, each concerning a nursing function. Responses to each nursing function on the questionnaire were assigned a value ranging from 0 'does not apply' to 5 'extremely important' (Appendix G). Several sets of scores were then computed: a) the mean importance scores for each nursing activity as rated by nurses, patients and physicians; b) the mean importance scores for each category of activities as rated by nurses, patients and physicians; and c) disagreement scores for each activity and each category for each nurse-patients (one nurse to three patients) pair were computed by subtracting the three patient's average score from that of their nurse. The first two sets of mean scores were used to provide information on general trends of the data. The last set of the scores was used to carry out inferential statistical tests.

A response rate reflects the rate of participation in a survey and is calculated by dividing the number of subjects participating by the number of subjects sampled (Polit & Hungler, 1987). In this study, the number of subjects who participated was 500, including nurses (N=100), patients (N=300), and physicians (N=100). The response rate of nurses and physicians was 100%. However, 34 patients either did not complete the questionnaire or did not meet the sampling criteria and their responses were not included in the data analysis, therefore the response rate for the patients was 88.67%.

The internal consistency of the instrument was calculated for the present sample. The results (Chronbach Alpha = 0.9779) indicated that the instrument was highly reliable from this sample.

4.1 The Demographic Profile of the Subjects

4.1.0 Nurses

All the nurse respondents were female (N=100). No male nurses were available for the study. Table-1 provides an overview of the number and characteristics of these nurses. Almost 90% (n=89) of the nurses graduated from a diploma program. Diploma nursing programs in China are on the average three years in length. Of the nurses surveyed, 7% graduated from a post diploma nursing program. Completing these post-diploma programs requires three years full time or five years part-time. Upon completion of the post-diploma program, nurses are granted a certificate. Only 3% of the nurses were graduates of a baccalaureate nursing program. The undergraduate baccalaureate nursing program in China is four years in length. At the conclusion of these programs, nurses are awarded a bachelor degree in nursing. These undergraduates graduated before 1949, or after university level programs were reinstated in 1983. In terms of education level, this sample is typical for a tertiary care facility in a large urban center in China.

The extent of the nurses' clinical experience varied from under one year to over ten years. One third (34.4%) of the nurses had six to ten years clinical experience, and 3% of the nurses had less than one year experience. Few of the nurses (2%) were under 18 years of age. The majority (n=81; 79%) were 18-34 years of age. Demographic information for nurses in the study is highlighted in Table 1.

Table-1 Characteristics of Participating Nurses

EDUCATION	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Diploma	89	89.9	89	89.9
Certificate	7	7.1	96	97.0
Baccalaureate	3	3.0	99	100.0

Frequency Missing=1

EXPERIENCE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
less than 1 year	3	3.0	3	3.0
1 to 2	28	28.3	31	31.3
3-5	13	13.1	44	44.4
6-10	34	34.3	78	78.8
over 10	21	21.2	99	100.0

Frequency Missing=1

AGE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
under 18	2	2.0	2	2.0
18-24	44	44.4	46	46.5
25-34	35	35.4	81	81.1
35-54	18	18.2	99	100.0

Frequency Missing = 1

*The missing frequency in the table means that one nurse in the sample did not provide her demographic data for unknown reasons.

4.1.1 Physicians

In terms of the education level of the physicians in the study, 74% (n=74) graduated from a medical college with programs that varied from 5 to 6 years in length. A small number (13%) graduated from college programs which lasted two to three years.

This group of physicians do not have degrees, rather a certificate was issued to them. A further 13% of the physicians had some post-graduate training at the master's or doctoral level. In terms of clinical experience, 74% of the physicians had been working for 6 to 10 years, and among them, 37% had over 10 years experience. With respect to age, the greatest percentage (n=48; 48%) were physicians aged from 25 to 34 years old. The next largest age cohort (n=41; 41%) were physicians aged between 35 and 54 years of age. The smallest percentage (n=4; 4%) were made up by older physicians aged 55 to 64 years. The remainder (n=7; 7%) were young physicians, aged from 18 to 24 years. Demographic data for the physicians are highlighted in Table-2.

Table-2 Characteristics of the Participating Physicians

EDUCATION	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Certificate	13	13.0	13	13.0
Baccalaureate	74	74.0	87	87.0
Other (Master or Ph.D.)	13	13.0	100	100.0
EXPERIENCE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
less than 1 year	4	4.0	4	4.0
1-2	4	4.0	8	8.0
3-5	18	18.0	26	26.0
6-10	37	37.0	63	63.0
Over 10	37	37.0	100	100.0
AGE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18-24	7	7.0	7	7.0
25-34	48	48.0	55	55.0
35-54	41	41.0	96	96.0
55-64	4	4.0	100	100.0

4.1.2 Patients

Slightly more male than female patients were included in the sample: 55.1% of the sample were males and 44.9% were females. The age of the patients varied from 18 to 80 years and the average age was 44.5 years. Approximately one-quarter of the patients (n=68; 25.6%) were 26 to 40 years old. A larger group (n=100; 45.3%) were 41 to 60 years of age. The remaining patients were over 60 years old (n=40; 15.1%) or 18 to 25 years old (n=37; 14.0%).

With respect to employment, 38.8% of the patients (n=101) were workers. They most commonly worked in state owned factories and could be considered "blue collar workers." "White collar workers" (n=72) comprised 27.7% of the sample and are classified as "cadres" in China. Most of these people worked in an office setting, which frequently required special skills, for example, as managers, secretaries, or as Communist Party officials. Just over 20% of the sample were professionals (n=58)--the intellectuals in Chinese society. A small percentage of the sample were farmers (6.2%), students (2.3%) and self-employed (1.2%). The remaining patients were military personnel (0.8%) and unemployed (0.8%).

There was considerable variation in the patients' diagnosis. Cancer (20.7%), infection (18.3%), and cardiovascular problems (17.0%) were most frequently reported. Problems of the digestive system (10.0%) and problems of the hematologic system (9.1%) were less frequently reported. The next largest percentage (8.3%) was not categorized. The remaining health conditions were related to the endocrine system (7.1%), muscular/skeletal system (7.1%) and renal system (2.5%).

As expected, the length of stay post-operation and of hospitalization varied. Hospitalization days ranged from 2-730 days and the average was 36.7 days. The number of post-operative days varied from 0-240 and the average was 14.6 days. Less than 20% of the patients (n=44) were hospitalized for less than one week. Almost 40% of the patients

(n=100) were in hospital less than two weeks and a little over half of the patients (52.9%) (n=139) were hospitalized for under three weeks. The majority of the patients (91.6) (n=246) were in hospital for less than 11 weeks. A small number of the patients (3.6%) (n=8) were hospitalized for more than six months. Most of the subjects (n=164, 63.8%) were non-surgical patients. About 20% of the patients (n=54) were less than one week post-surgery. Almost 10% of the patients (n=28) were post-surgery between two and three weeks. The rest of the patients (n=11; 4.3%) were post-surgery between 4 and 34 weeks. Table-3 provides detailed characteristics of the patients sampled for this study.

Table-3 Characteristics of Patients

SEX	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Male	146	55.1	146	55.1
Female	119	44.9	265	100.0

Frequency Missing = 1

AGE	Frequency	Percent	Cumulative Frequency	Cumulative Percent
18-25	37	14.0	37	14.0
26-40	68	25.6	105	39.6
41-60	100	45.3	225	84.9
61-80	40	15.1	265	100.0

Frequency Missing = 1

OCCUPATION	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Cadre	72	27.7	72	27.7
Professional	58	22.3	130	50.0
Worker	101	38.8	231	88.8
Farmer	16	6.2	247	95.0
Student	6	2.3	253	97.3
Self-employed	3	1.2	256	98.5
Military	2	0.8	258	99.2
Unemployed	2	0.8	260	100.0

Frequency Missing = 6

Title (continued)

DIAGNOSIS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Cancer	50	20.7	50	20.7
Infection	44	18.3	94	39.0
Digestive	24	10.0	118	49.0
Cardiovascular	41	17.0	159	66.0
Hematologic	22	9.1	118	75.1
Endocrine	17	7.1	198	82.2
Renal	6	2.5	204	84.6
Muscularskeletal	17	7.1	221	91.7
Other	20	8.3	241	100.0

Frequency Missing = 25

HOSPITAL DAYS		Cumulative Frequency	Cumulative Percent
Less than	1 week	44	16.7
	2 weeks	100	38.0
	3 weeks	139	52.9
	4 weeks	173	65.8
	5 weeks	203	77.2
	7 weeks	225	85.6
	11 weeks	241	91.6
	22 weeks	254	96.6
More than	24 weeks	263	100.0

Frequency Missing = 3

POST OP. DAYS	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Non-surgical	164	63.8	164	63.8
Less than 1 week	54	21.0	218	84.8
2 - 3 weeks	28	10.9	246	92.6
4 - 43 weeks	11	4.3	257	100.0

Frequency Missing = 9

*The number of missing frequency in this table means the number of the patients who failed to provide the particular demographic information.

4.2 Descriptive Statistics

4.2.0 The Star Charts

The mean of importance scores of each nursing activity (N=48) was calculated for each group, i.e., nurses, patients, and physicians. Figures 3 to 5 are star charts of the mean scores of nursing activities as rated by nurses, patients, and physicians. Star chart is an option of the SAS (Statistical Analysis System) graph program and provides a visual impression of how various groups rated the importance of nursing activities. There are two sets of numbers outside the ring of the star chart. The numbers 1 to 48 represent nursing activities. The other numbers (1.1 to 4.4) reflect the mean scores of the participants.

Star charts indicate some general ideas and trends in the data. The shape of the star charts for the nurses' and physicians' mean scores are very similar. For example, if we line up the ring and the numbers 1 to 48 of figure 3 and 5, we find that most of the areas match. This suggests that nurses and physicians have a tendency to agree with each other concerning selected nursing activities. The exceptions are nursing function 12 (notice when he has pain and give him medication if ordered), function 17 (see that the bed pan or urinal are provided when needed), function 45 (explain about diagnostic tests ahead of time so he will know what to expect), and function 28 (relieve his anxiety by explaining reasons for his symptoms). Nurses rated these nursing functions as more important than did physicians. Conversely, nursing function 36 (talk with a patient about topics unrelated to his illness, such as news, hobbies, other interests), function 37 (plan some diversion or recreation for him), function 38 (take time to talk with his family and answer their questions), and function 39 (help him make arrangements for his care at home) were all rated more important by physicians than nurses.

Although the star chart for the patients' mean scores differ from that of the nurses' and physicians' in many respects, there is still a trend toward concurrence. Patients tended

to rate every nursing function higher than nurses except function 3 (assist with care of the mouth and teeth), function 5 (help with grooming, such as care of nails, hair and /or shaving), function 8 (take special care of his skin so it does not become sore), function 40 (notice changes in his condition and report them), and function 44 (carry out doctor's orders). Compared to their patients nurses rated these functions as more important.

4. 2.1 Polygon

The star charts provide a visual representation of mean scores rated by nurses, patients and physicians and also provide the opportunity for comparison of two groups, as was discussed in the last section. The polygon, Figure 6, provides mean scores of the three groups of subjects, i.e., nurses, patients, and physicians, on the same graph. The advantage of this graph is that it makes possible the comparison of the three groups.

Agreement among the three groups is evident, since the three different lines, each of which represents the mean scores of each group of subjects, lie on top of each other for the most part of the graph. The parts that do not line up indicate the disagreement among the three groups. For example, substantial differences among the three groups are evident for nursing function 38 (take time to talk with his family and answer their questions), function 21 (help his get necessary exercise while he is in the hospital), function 27 (provide a comfortable, pleasant environment), and 12 (notice when he has pain and give him medication if ordered).

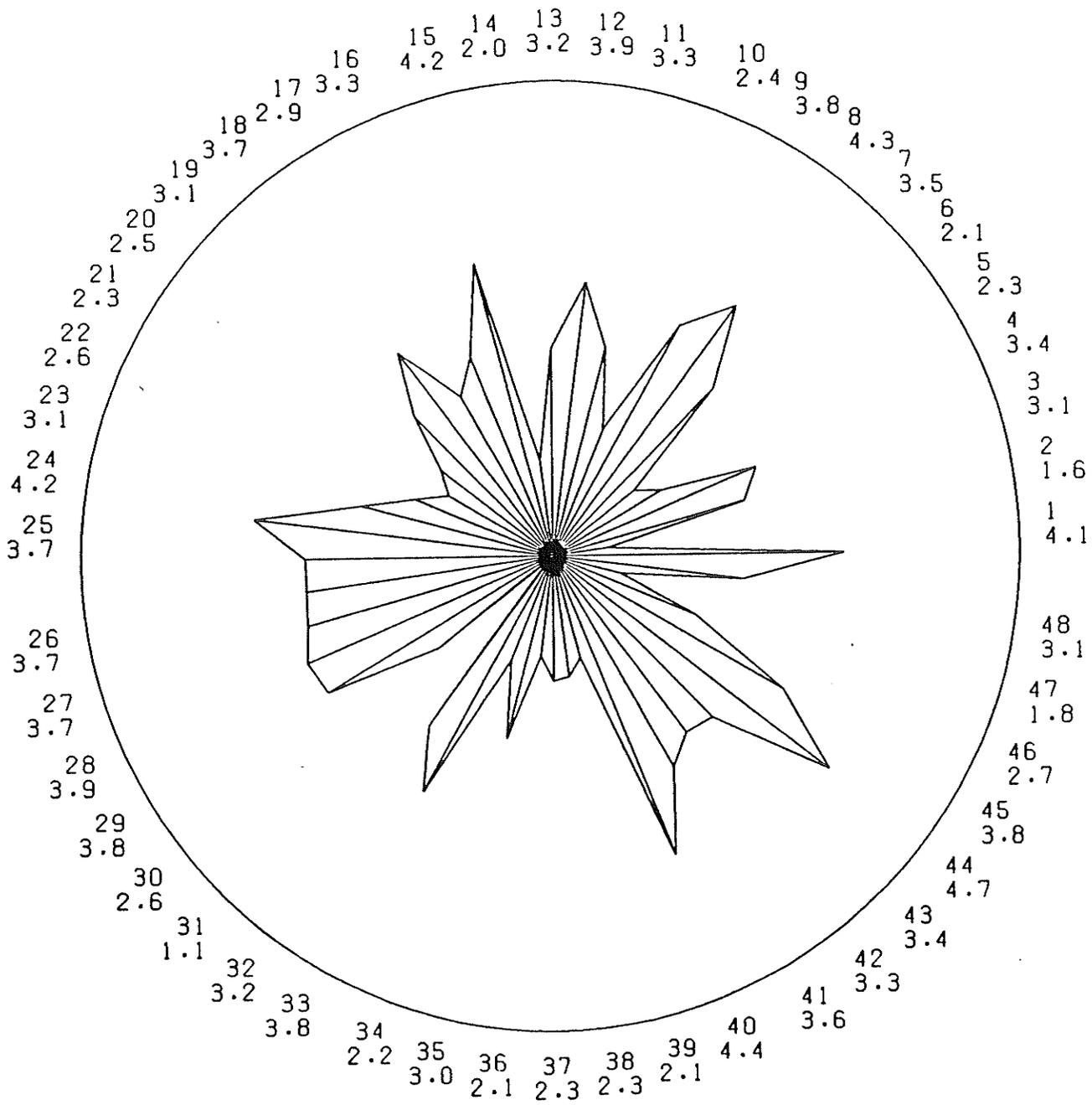


Figure-3 Star Chart of Mean Scores of Nursing Activities As Rated By Nurses

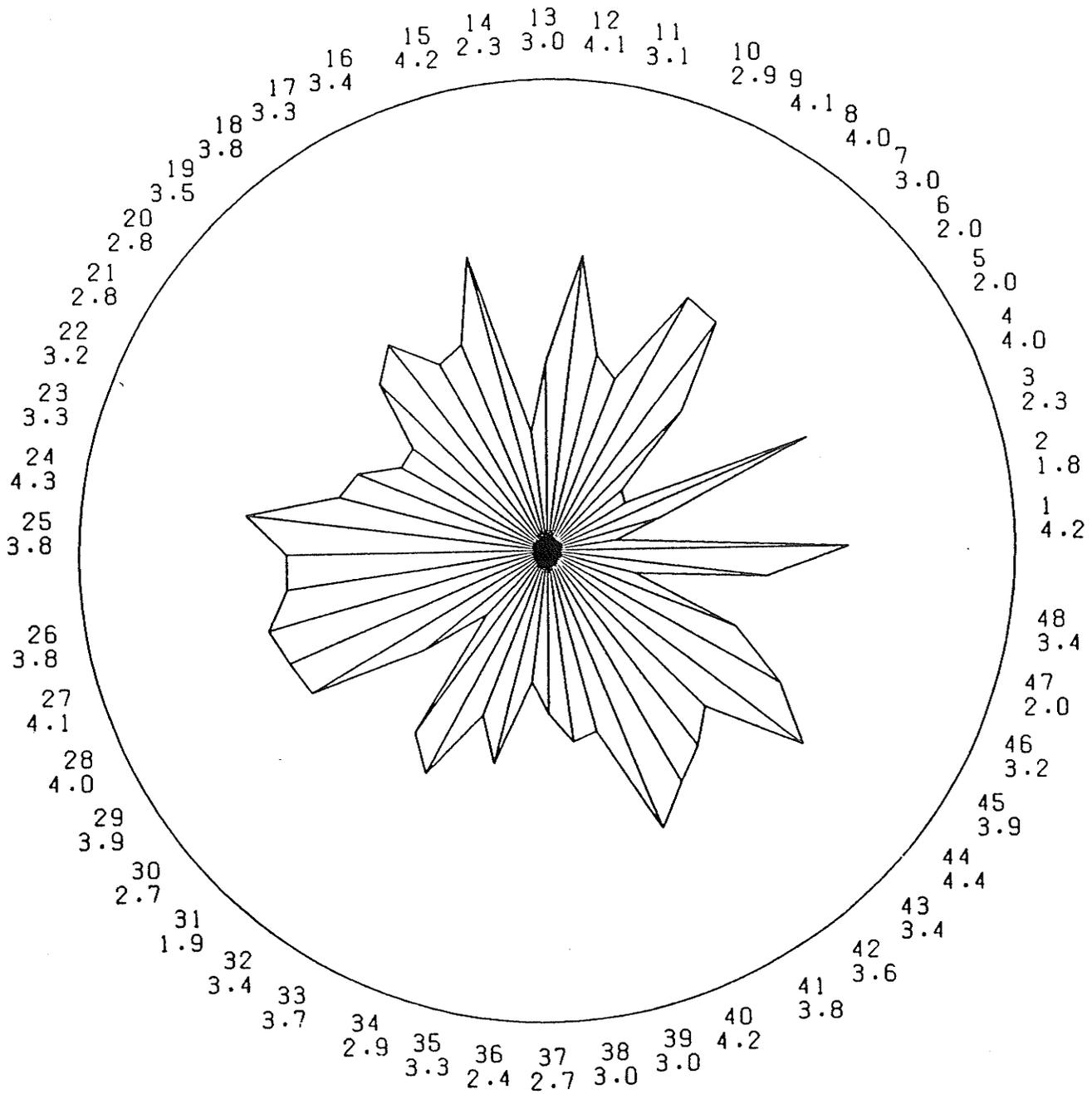


Figure-4 Star Chart of Mean Scores of Nursing Activities As Rated By Patients

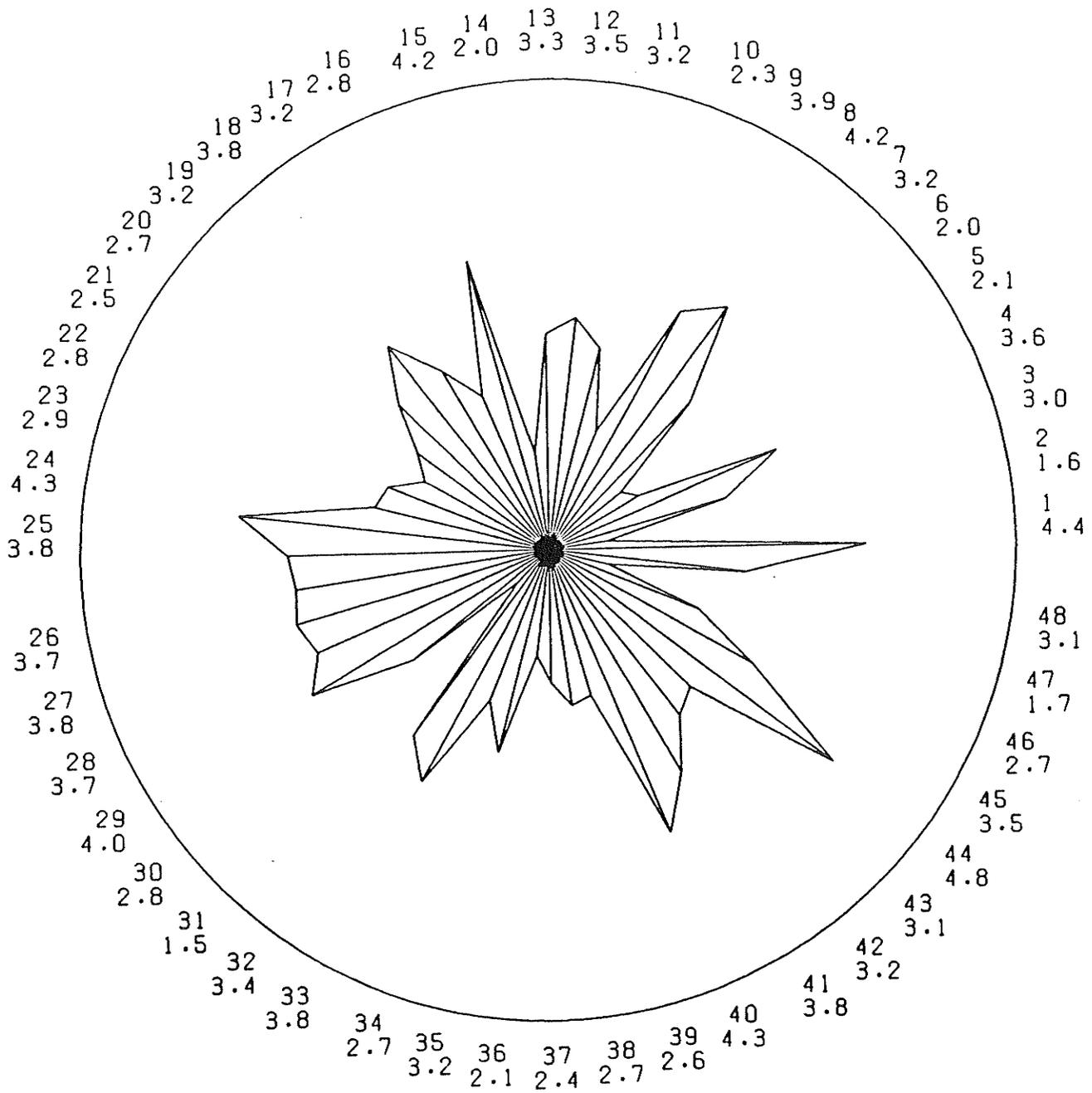


Figure-5 Star Chart of Mean Scores of Nursing Activities As Rated By Physicians

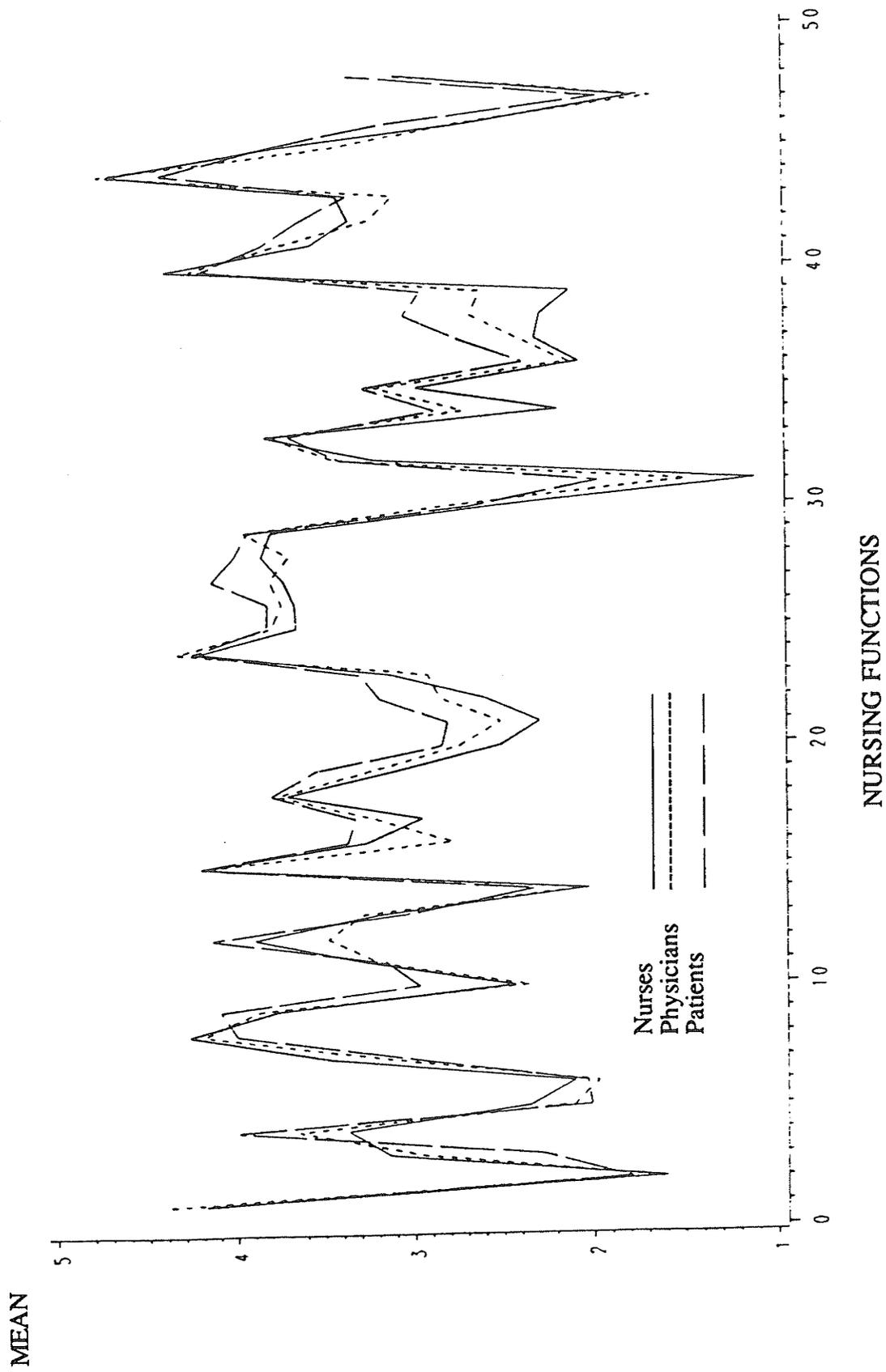


Figure 6. Activity Importance Ratings By Nurses/Patients/Physicians

4.2.2 Scatter Plots

To understand more details about the means illustrated above, two scatter plots (Figure 7 and 8) are presented. The advantage of these scatter plots is that they facilitate comparison of grouped nursing activities.

Mean scores for categories of nursing functions were plotted on the vertical and horizontal axes. In Figure 7, the mean scores for nurses are contrasted with those of their patients. Mean scores for nursing functions as rated by physicians and nurses are compared in Figure 8. The points (1, 2, 3 and 4) inside these two plots represent the category to which the nursing activities belong. Because the points appear to band around a straight line, these two plots reflect some degree of correlation. As previously mentioned, these plots provide information about grouped nursing activities. For instance, in Figure 7, category 3 (nursing activities of medical implementation) are concentrated on the top-right corner. This configuration suggests that both nurses and patients rate this category of nursing functions as important. Meanwhile category 2 (psychosocial aspect of nursing activities) and category 4 (preparation for discharge related nursing activities) cluster next to the medical implementation activities. Category 1 (physical aspect of nursing care) were scattered and mostly in the lower-left corner, indicating that nurses and patients had less of agreement regarding this category of nursing activities and also rated them least important on average.

In Figure 8, the categories of nursing activities almost repeat the pattern described in Figure 7. However, there were slight differences between these two plots. For example, the scores of nurses and physicians were more correlated than those of patients and nurses.

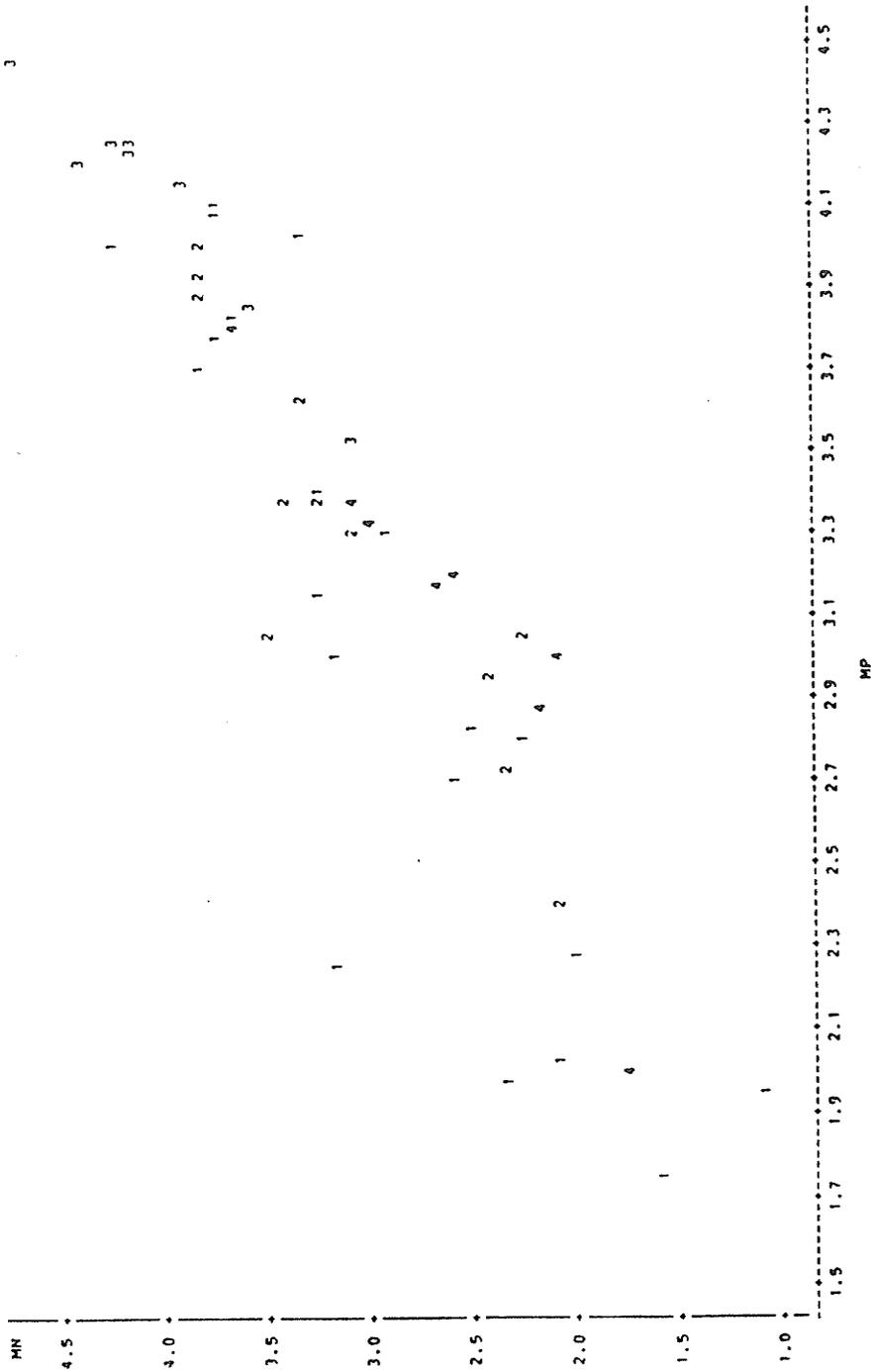


Figure-7 Scatter Plot of Nurses' Mean Scores Versus Patients' Mean Scores

* MP represents the mean scores of the patients for each nursing activity

* MN represents the mean score of the nurses for each nursing activity

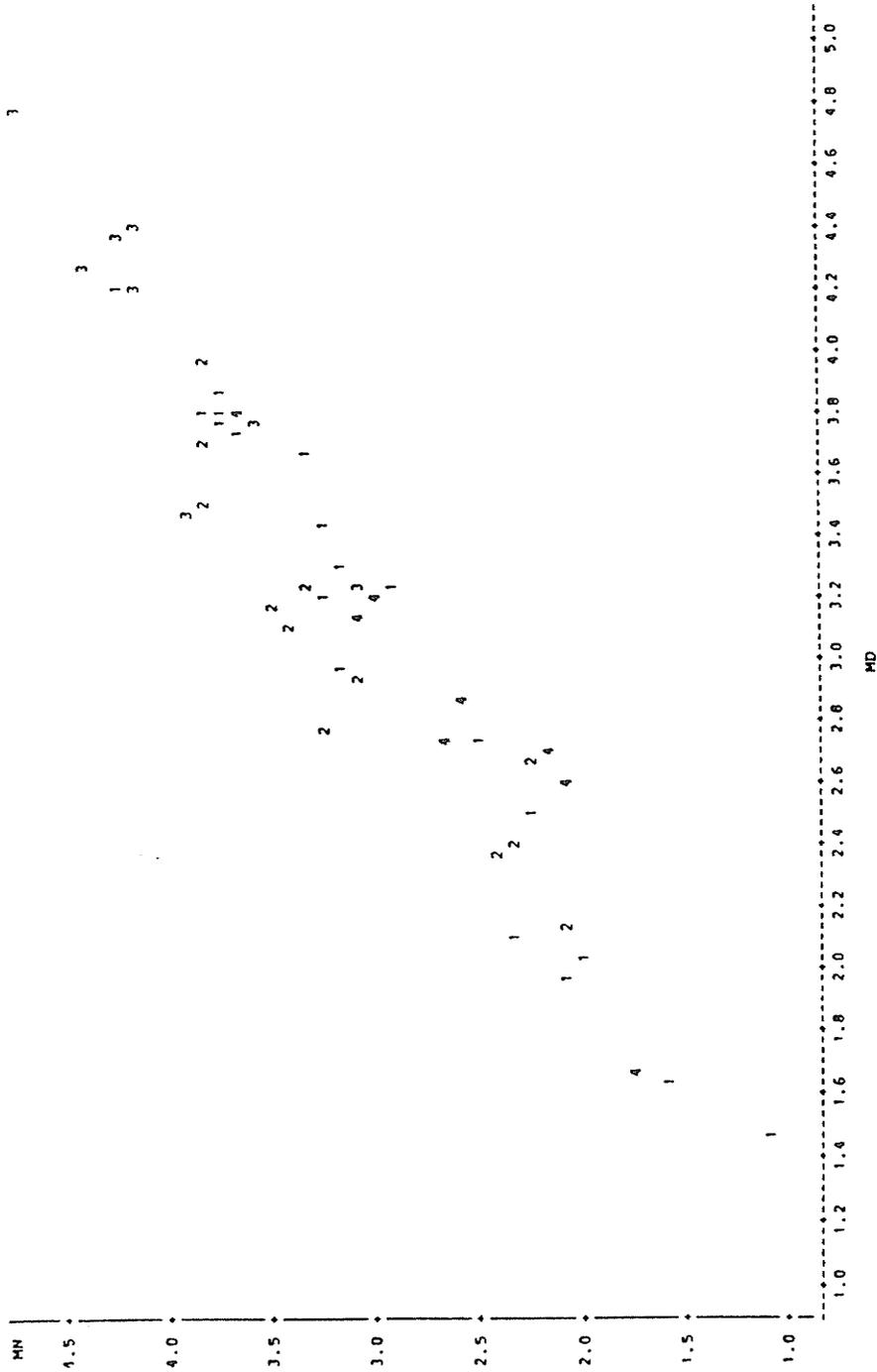


Figure-8 The Scatter Plot of Physician's Mean Scores Versus Nurses' Mean Scores

* MD represents the mean score of the physicians for each nursing activity

* MN represents the mean score of the nurses for each nursing activity

4.2.3 Importance of The Four Groups of Nursing Activity

The mean scores for each category of activities as rated by nurses, patients, and physicians are summarized in Table-4. Nurses and physicians ranked the importance of the grouped nursing activities in the same fashion: 1) medical implementation related nursing function (Medical Care), 2) psychosocial aspect of nursing activities (Psychosocial Care), 3) physical aspect of nursing activities (Physical Care), and 4) preparation for discharge related nursing activities (Discharge Care) were rank ordered from most important to least important. Patients also rated "Medical Care" as the most important category, followed by "Psychosocial Care." However, they rated "Discharge Care" as more important than "Physical Care." Differences were evident, however, among the three groups in terms of their rating scores on "psychosocial care," "physical care," and "discharge care."

Table-4. The Group Means of Four Categorical Nursing Activities

	Nurses	Physician	Patients
Medical Care	4.00	4.03	4.04
Psychosocial Care	3.09	2.97	3.25
Physical Care	2.86	2.94	2.95
Discharge Care	2.62	2.81	3.01

4.2.4 The Rank Plots

The rank plot is another analysis technique which SAS graphics offers. Rank plots in which the names of the nursing activities appear on the plots are found in Figures 9 and 10. Whereas the previous figure explored mean category scores, the rank plots provide information on the specific nursing function. These functions appear as they were ranked by the various groups of subjects (nurses, patients, and physicians).

For example, in Figure 9, "give bath" is an activity that appear at the bottom-left corner of the plot, suggesting that both the nurses and patients consider this nursing activity the least important. Meanwhile, at the top-right corner "carry out MD orders" is found, which implies that both nurses and patients rated this nursing activity as the most important.

Points relatively far from the theoretical straight line should be noted, because these indicate disagreement between nurses and patients on the relative importance of nursing functions. In Figure 9, for example, "mouth care," "provide privacy," "grooming care," "clean bed", and "talk to family" are the points where the largest degree of disagreement between nurses and patients on the nursing functions is present. In Figure 10, "pain management," "take time to listen," "patient preference," and "provide bed pan" are the points where the largest degree of disagreement between nurses and physicians on the nursing functions is present.

4.2.5 Activities Considered Most Important

While the above two rank plots indicate some trends for each nursing activity in terms of its relative importance as rated by nurses, patients and physicians, activities considered most important are outlined in Table 5. "Carry out the doctor's orders" was rated most important of all nursing functions. Not only was it ranked the highest, but also there was the consensus among nurses, patients, and physicians about its importance. Although the views of nurses, patients, and physicians on the nursing activities from the second most important to the fifth most important varied, some nursing activities repeatedly appeared in the table. For example, "notice changes in a patient's condition and report them.", "give prescribed medications on time.", and "observe the effects of treatments ordered by the physician" appeared three times in the table, which indicates a fairly strong agreement among nurses, patients, and physicians on the five nursing activities perceived most important.

Table-5 The Five Nursing Activities Perceived Most Important

Most Importance	Nurses		Physicians		Patients	
	Mean	Activity No.	Mean	Activity No.	Mean	Activity No.
1	4.73	44	4.78	44	4.44	44
2	4.41	40	4.39	1	4.26	24
3	4.28	8	4.35	24	4.24	15
4	4.22	24	4.27	40	4.23	1
5	4.19	15	4.20	15	4.20	40

Activity No.

- 44. Carry out the doctor's orders.
- 24. Give prescribed medications on time.
- 40. Notice changes in a patient's condition and report them.
- 15. Observe the effects of treatments ordered by the physician.
- 8. Take special care of his skin so it does not become sore.
- 1. Take his temperature and pulse.

4.2.6 Activities Considered Least Important

In contrast to Table 5, the five least important nursing activities rated by nurses, physicians, and nurses are presented in Table 6. Nurses and physicians perceived “see that a patient has food and/or fluid between meals” to be the least important nursing activity, while patients perceived “give (or assist with) a daily bath” is least important. Agreement is found among nurses, patients and physicians on one item “arrange for a public health nurse to visit him at home” which was rated as the third least important nursing activity.

Table-6. The Five Least Important Nursing Activities

Least Important	Nurses		Physicians		Patients	
	Mean	Activity No.	Mean	Activity No.	Mean	Activity No.
1	1.10	31	1.48	31	1.77	2
2	1.60	2	1.62	2	1.95	31
3	1.76	47	1.66	47	2.00	47
4	2.02	14	2.04	14	2.00	5
5	2.06	36	2.10	5	2.04	6

Activity No.

- 31. See that a patient has food and /or fluid between meals.
- 47. Arrange for a public health nurse to visit him at home.
- 2. Give (or assist with) a daily bath.
- 14. Make a patient comfortable by rubbing his back.
- 5. Help with grooming, such as care of nails, hair and /or shaving.
- 6. Be sure that he has necessary equipment, such as a glass, towel, soap, blanket, etc.
- 36. Talk with a patient about topics unrelated to his illness, such as news, hobbies, other interests.

4.3 Inferential Statistical Tests

4.3.0 Findings of the Unpaired Data

Relationships between and among variables were analyzed for the most part using non-parametric statistical procedures. According to Polit and Hungler (1987), non-parametric tests are most useful when (1) the data under study cannot be construed as interval-level measures, or (2) when the distribution of data is markedly non-normal. Because the data of this study was ordinal, and the researcher did not assume a normal data distribution, non-parametric techniques were considered appropriate.

A Kendall coefficient of concordance is a test to detect concordance among raters, given that the measurement of the data is ordinal, as was the situation with this data. A Kendall coefficient of concordance test was used to detect whether there was a statistically significant correlation within each group (nurses, patients, physicians) for each selected nursing activity (N=48). The results of this test revealed that there was a statistically significant correlation among the nurses (Chi-Square [47] = 1539.21, $p < .001$), among the patients (Chi-Square [47] = 3277.90, $p < .001$), and among the physicians (Chi-Square [47] = 1432.52, $p < .001$). The results of this test justify the treatment of the scale scores of nurses, patients and physicians as three variables for use in inferential tests. Table-7 presents the results of the Kendall coefficient of concordance test for each group of participants.

Table-7 Results of Kendall Coefficient of Concordance Test For Each Group of Participants on Each Selected Nursing Activities

	W	Chi-Square	df	Significance
Nurses	.4253	1539.21	47	.0000
Patients	.3505	3277.90	47	.0000
Physicians	.4175	1432.52	47	.0000

In order to detect if there was a significant difference among the three groups of subjects, i.e., nurses, patients and physicians, in rating each selected nursing activity, a Friedman two-way Anova was conducted. According to Polit and Hungler (1987), the Friedman Anova may be applied "to test the difference in the ranks of scores for 3 or more related sets of scores" when the level of measurement is ordinal or nominal. This is the situation in this study. The result of the Friedman Anova reveals that there are statistically significant differences among the three groups of subjects (Chi-Square [2] = 19.5416, $p < .001$).

To detect if there was a significant correlation among the nurses, patients, and physicians in rating the different categories of nursing activities, a Kendall coefficient concordance test again was used for the same reason mentioned above. The results of the Kendall coefficient concordance test are presented in Table-8. There was no statistically significant correlation between groups on physical care, psychosocial care, or medical related care. However, there was a statistically significant correlation on category of psychosocial care (Chi-Square [2] = 8.7, $p < .05$), and preparing for discharge (Chi-Square [2] = 14.25, $p < .05$), which means that there was no statistically significant difference among these three groups of subjects on these two categories.

Table-8 Results of Kendall Coefficient of Concordance Test For Each Category of Nursing Activities

Category	W	Chi-Square	df	Significance
Physical Care	.0975	3.9	2	.1423
Psychosocial Care	.3611	8.7	2	.0131
Medical related Care	.1875	3.0	2	.2231
Preparing for Discharge	.8906	14.25	2	.0008

4.3.1 Findings of the Paired Data

In testing the paired data, i.e. a nurse and her three patients, a univariate technique was chosen. This technique was used to determine if there was a statistically significant difference between the nurse and her patient pair (one nurse and her three patients) on perceived importance of each nursing activity and each category. A one-to-one nurse and patient disagreement score was used as the basis for this test rather than an average score of patients and nurses. The results revealed that there was a statistically significant difference on some nursing activities and some categories. Table-9 and Table-10 present the statistically significant results of these tests.

Table-9 Significant Differences Between Individual Nurse and Patients on Some Nursing Activities

Activity No.	Normal p	Test t	Sgn Rank	df	p
3	.2570	5.856		98	.0001
4	.1460	-5.406		98	.0001
19	.3540	-3.514		97	.0007
22	.1090	-4.513		97	.0001
31	.0362		-1319	97	.0001
34	.0122		-930.5	98	.0001
38	.0018		-1100.5	98	.0001
39	.0206		-1175	98	.0001
44	.0198		769.5	98	.0001

Activity No.

- 3. Assist with care of the mouth and teeth.
- 4. Provide a clean, comfortable bed.
- 19. Check on bowel functioning and report problems to the doctor.
- 22. Discuss with him the amount and type of activity he should have at home.
- 31. See that he has food and /or fluid between meals.
- 34. Help him understand how to plan the diet he will need at home.
- 38. Take time to talk with his family and answer their questions.
- 39. Help him make arrangements for his care at home.
- 44. Carry out the doctor's orders.

Table-10 Significant Difference Between Individual Nurse and Patients on Some Categories

Category	Normal p	Test t	Sgn Rank	df	p
Discharge Care	.5201	-5.114		98	.0001
Psychosocial Care	.0311		-619	98	.0151
Physical Care	.0283		-592	98	.0382
Medical Care	.9804	0.1327		98	.1327

In Table 9, Normal $p < .05$ means lack of normality. If a lack of normality is present, then using a non-parametric Signed Rank test is appropriate. Otherwise a paired t-test can be used. Polit and Hungler (1987) pointed out that a non-parametric signed-rank test can be used when data are paired rather than independent. The accepted significance level here is $p < .001$ and it is stringent. It is thought to be necessary to avoid a Type I error, because there were 48 tests conducted at the same time, which presents a great possibility of committing a Type I error. In Table 9, the negative value of t or signed rank means that the three patients rated the nursing activity or the category higher than their nurses. From Table 9, it can be seen that the nursing activities "provide a clean, comfortable bed," "check on bowel functioning and report problems to the doctor," "discuss with him the amount and type of activity he should have at home," "see that he has food and /or fluid between meals," "help him understand how to plan the diet he will need at home," "take time to talk with his family and answer their questions," and "help him make arrangements for his care at home" were rated as being of significantly higher importance by the three patients than by their nurse. Conversely, the positive value of t or signed rank means that a nurse rates the nursing activity more important than patients. For example, nursing "assist with care of the mouth and teeth" and "carry out the doctor's orders" were rated as significantly of higher importance by the nurse than by her three patients.

In Table-10, the accepted significance level is $p < .05$ because only four items, i.e., four categories, were tested. The negative value of t or signed rank means that the three patients rated the nursing category significantly higher than their nurse. The positive value of t or signed rank means that the nurse rated the category higher than her three patients. For example, nursing function categories of "discharge care," "psychosocial care," and "physical care" were rated statistically higher in importance by the three patients than by their nurse. Although, nursing function category "medical care" was rated higher by the nurse than by her three patients, there was no statistically significant difference.

4.4 Relationship Between Characteristics of Participants and Importance Scores

A series of correlation tests including Pearson, Spearman, Kendall correlation coefficients tests were conducted in order to determine whether the characteristics of participants had any influence on their rating scores. The results of all these tests revealed there were no significant correlations between a nurse's, a patient's or a physician's characteristics and the perceived importance of selected nursing activities.

4.5 Summary

In this chapter, the findings of the study were presented. The response rate was 100% for nurses and physicians and 88.67% for patients. The reliability of the instrument was established (Chronbach's Alpha = 0.9779). The demographic data revealed the characteristics of the sample. While the descriptive statistics indicated the general trends in the data, the inferential statistics, mostly non-parametric statistics in this study, helped to detect the relationships among the variables. The main findings were: 1) medical implementation related nursing functions were perceived as the most important by nurses,

patients and physicians, 2) patients perceived three categories of nursing functions more important than that of their nurses, 3) there were no correlation between the characteristics of participants and their perceptions of importance of nursing functions.

In the following chapter, a discussion of the above findings will be presented guided by the research questions and the theoretical framework.

CHAPTER 5

DISCUSSION

5.0 Introduction

In this chapter, the results of the study are interpreted in light of the research questions, the theoretical underpinnings, the socioeconomic and cultural factors that have influenced nursing development in China, and the existing body of related research knowledge. First, a summary of the research questions and the theoretical perspective is presented to set the stage for the interpretation and discussion of the results. Second, the findings are summarized and conclusions are drawn. Third, the implications of the findings are discussed. Fourth, the limitations of the study are presented. Lastly, recommendations for future research are suggested.

5.1 Summary of the Research Questions and Theoretical Perspective

This study was implemented to answer following questions: 1) What is the perceived importance of selected nursing activities as rated by patients/nurses/physicians? 2) To what extent, and in what areas, do nurses, patients, and physicians agree on the relative importance of selected nursing activities? and 3) Is there a relationship between selected nurse/patient/physician characteristics and the extent of nurse/patient/physician agreement concerning the perceived importance of nursing activities?

The theoretical perspective guiding this study was role theory. According to role theory, role attitudes and opinions (or more specifically role expectations) are subjective phenomena learned from social and cultural experiences. With respect to this study, the

learning or socialization process involved both meaning seeking and accepting the existing role expectations of nurses by the patients, nurses, and physicians.

If one's expectations of a specific role are based on his/her social and cultural experiences as role theory proposes, measuring the perceived importance of nursing activities then could be one way of measuring his/her expectation of the nurse based on his/her social and cultural experiences. If individuals have the same or similar external social and cultural environments, then the observed differences among the Chinese subjects could be explained by their different experiences as a patient, a nurse, or a physician. For example, urban Chinese by and large have similar social and health care services. The expectations concerning the role of the nurse can be best explained by their experiences as patient, nurse, or physician. Individuals from different cultures, Americans and Chinese for example, could view the role of the nurse differently. Differences result not only from the role of being a patient, a nurse, or a physician, but also because of cultural, social structure and health care system differences. The findings of this study are interpreted and explained in light of the social and cultural factors which have contributed to the conceptualization of the role of the nurse in China.

5.2 Discussions of the Findings

5.2.0 The Perceived Importance of Selected Nursing Activities

The following discussion strives to answer the research question, "What is the perceived importance of selected nursing activities as rated by patients/nurses/physicians?" Findings of the most important nursing activities was in Table 5.

The findings suggest that nursing activities related to the medical implementation are given the highest importance by all three groups. While nurses perceived that taking care of the patient's skin was important, patients and physicians judged taking temperature and

pulse as a more important nursing function. The former may reflect the emphasis in nursing education in China on preventing bed sores as an important nursing concern. The latter is indicative that patients and physicians are fully aware of the importance of routine of pulse and temperature measurements.

Similarities and differences are found, when comparing this finding with Yang's study conducted in Iowa in 1974 using the same design (without physicians in the sample), and the same questionnaire which was designed by White (1972). In Yang's study, among the five most important nursing activities, three were related to the category of medical implementation. This suggests that, both in China and in the United States, certain medically oriented nursing functions were given high recognition.

The five least important activities rated by Chinese nurse, patients and physicians were presented in Table 6. Some of reasons why these activities are rated as "five least important" by Chinese are rooted in social, economic, and historical domains. For example, "see that a patient has food and/or fluid between meals," "give (or assist with) a daily bath," "help a patient grooming" and "make a patient comfortable by rubbing his back" have historically been the responsibility of family members, even when the patient is in a hospital. These activities may be perceived as family-based and not the responsibility of professional nurses. This result may also be explained by the severe shortage of Chinese nurses. Because of the nursing shortage, nurses are not expected to perform these physical-care oriented nursing functions. In addition, "give (or assist with) a daily bath" requires private bathroom and a 24 hour supply of hot running water which are not available in many Chinese hospitals. These factors may have contributed to the low expectation by nurses to perform these nursing functions in China. "Arrange for a public health nurse to visit him at home" is another example. Because public health nursing does not have the same organization in China as in the West, no home visits are made by nurses in China. To expect a nurse to do a follow-up visit at home is an unfathomable notion.

Similarities were found between this study and the study conducted by Yang (1974), with regard to the least important nursing activities, are "arrange public health nurse to visit a patient at home," "assist with care of mouth and teeth," and "assist a patient with meals." The similarities among the five most important and least important nursing activities as rated by subjects in these two different cultures, suggests that people in both cultures recognize that some physical and psychosocial aspects of nursing activities (in the least important nursing activities) are not vital to a patient's survival or recovery. The implementation of medically related nursing activities (in the five most important range) are very important to assist patients to "get better."

With regard to the importance of categorized nursing activities, nurses and physicians were in concurrence. Nurses and physicians rated the most important to the least important as follows: medical implementation, psychosocial aspect of care, physical aspect of care, and lastly, preparation for discharge. The patient rated the nursing categories slightly differently, i.e., instead of rating preparation for discharge as the least important, they rated physical aspect of care the least important.

Health professionals may perceive the preparation for patient discharge as the least important nursing functions because: 1) they did not judge these nursing activities as a professional's responsibility and they were unaware of the need to perform these functions, 2) given the shortage of nurses, health professionals may not think nurses have time to perform the functions in this category when more acutely sick patients need them, and 3) Chinese families were usually pressured to step in and assist with this aspect of health care.

That patients rated functions of preparation for patient discharge as more important than those of physical aspect of care may indicate a desire for nurses to perform these functions. This desire also suggests that sending unprepared patients home, to be taken care of by their families or themselves, is unsatisfactory. As living standards in China improve, and the leading causes of death shift from infectious diseases to cancer and cardiovascular problems (this trend was supported by the diagnosis of the patients in this

study), Chinese people are now expecting more preventative oriented services rather than simply curative treatment.

5.2.1 The Areas and the Extent of Agreement Among Nurses, Patients and Physicians

A statistically significant correlation within each of the groups, i.e., the nurses, patients, and physicians, suggests that nurses, patients, and physician agree with each other the selected nursing activities. The reason for this agreement may be explained, as role theory suggests, in considering their shared experience either as a health professional or a patient. Health professionals were trained how to think and behave under the health care system, while patients perceive the role of the health care workers based on their needs and social or cultural experiences.

When the paired data (one nurse and her three patients) were tested, significant differences were found (refer to Table 9). "Provide a clean, comfortable bed" is a classic nursing concern which may date back to Nightingale. Patients wish to have this basic nursing function performed well in Chinese hospitals, and perhaps better than what they currently receive. The difficulties associated with the delivery of such basic nursing care for hospitalized patients is challenging for China. For example, as was discussed in Chapter II, importing high technology from the West demands substantial financial investment. Consequently, budgets for basic hospital supplies such as linen (and the associated facilities to keep linen clean) are reduced. China is not an industrialized nation and funding for health care is relatively limited compared the Western standards. Where health care dollars should be spent is a constant debate. Should the money be spent on high technologies for treatment before the most basic supply for nursing care is secured? The emphasis on nursing education is another relevant concern. Should the emphasis be on technologically oriented nursing procedures or on the basic needs of patient care, such as "provide a clean, comfortable bed?" Where should the balance be drawn? In this case, the

discrepancy between the expectation of nurses and their patients is a meaningful indication where the emphasis should be. Patients want a clean, comfortable bed.

Nursing activities of preparation for discharge ("discuss with a patient the amount and type of activity he should have at home," "help a patient understand how to plan the diet he/she will need at home," and "help a patient make arrangements for his/her care at home") were perceived by patients as more important than by their nurses. This suggests that there is a demand for this type of care by patients but the nurses did not seem to be aware of it or at least did not agree. Additionally, "take time to talk with a patient family and answer their questions" and "see that a patient has food and/or fluid between meals" are activities that warrant attention from the nurses. Although the severe shortage of nurses in China makes such "non-vital" nursing activities perceived by the nurses as least important, this study suggest that patients expect those function to be carried out by a nurse.

In terms of the categorized nursing activities, the following nursing functions were rated statistically more important by the three patients than by their nurses: "discharge care," "psychosocial care," and "physical care." Although, category "medical care" was rated higher by the nurse than by her three patients, no statistically significant difference was found. This result suggests that relative to their patients, Chinese nurses underestimated the importance of these three groups of nursing activities, i.e., the preparation for discharge, the psychosocial aspect of care, and the physical aspect of care.

There are marked differences between Chinese and the Americans, on rating the same nursing activities. The results of these similar studies are summarized in the Table 11 for comparison purposes.

White's study in 1972 and Yang's study in 1974 had the same pattern as far as the categories of nursing activities were concerned. In their studies, nurses underestimated the importance of the physical aspect of nursing care when compared with their patients. White questioned whether the nurses thought that physical care was more important for long term patients than for those patients hospitalized for shorter periods (1972). White also

suggested that “the tendency of nurses to de-emphasize physical care may be related to the increasing emphasis on psychosocial aspect of nursing” (1972, p.95).

Table 11. The Results of the Function Studies

	White (1972)	Yang (1974)	Boyle et al (1989)	Duan (1992)
Physical Care	P>N	P>N	NO	P>N
Psychosocial Care	N>P	N>P	N>P	P>N
Medical Care	NO	NO	P>N	NO
Discharge Care	NO	NO	NO	P>N

* P>N The category was rated statistically significantly higher by the patients than by the nurses

* N>P The category was rated statistically significantly higher by the nurses than by the patients

*NO No statistically significant differences were found between nurses and patients

Seventeen years later, Boyle et al (1989) modified White’s instrument and claimed that it was more sensitive to the situation of 1989. The results of their study indicated that nurses and patients did not differ in their views of the physical aspect of nursing care. This may reflect that patients in the late 1980’s were more satisfied with this area of nursing practice than patients in the 1970’s.

In the current study, the nurses underestimated the importance of “physical care”. The factors contributing to this finding in the China context are different from those of the West, as purported by role theory. The traditional family role in caring for the sick in China has contributed to the situation. Additionally, the severe shortage of nurses may also help explain this finding. Chinese nurses have little time for each nursing function. In all likelihood, nursing administrators and staff nurses are fully aware of the difficulties they are facing. What this finding may also indicate is that they have very much accepted the

situation. Other nursing priorities are set and nurses may be saying "do not expect us to perform everything under such circumstances."

For category II, the psychosocial aspect of nursing care, White's (1972) and Yang's (1974) studies both noted that nurses rated this category much more important than their patients. White (1972) claimed that the higher importance scores computed for nurses on psychosocial aspects of care are a reflection of the changing emphasis in nursing curricula. However, according to White:

The somewhat lower importance ascribed by many patients for this category of activities provokes further speculation. In an attempt to remedy what appeared to be a weakness, has the pendulum swung too far? Have nurses been led to believe that they should provide "comprehensive" care for all their patients when in fact, many patients do not require it? (1972, p.99)

Similar results were found in the study by Boyle et al in 1989. Does this indicate that nursing curricula in the United States has overemphasized this category of nursing care since 1972? In China, the situation is just the opposite as indicated by the results of the current study. Chinese nurses rated the psychosocial aspect of the care much less important than patients. This finding concurs with the literature presented in Chapter II. It appears that either the nurses were not aware of the demand for psychosocial care by the patient, or meeting this demand was thought to be impossible and therefore it was neglected. Psychosocial patient care may not receive adequate attention in Chinese nursing curricula. The possible reasons Chinese nurses did not think that they could possibly meet this demand were: 1) they are not trained for it, and 2) there is no time to perform it due to the shortage of nurses in Chinese hospitals.

All the participants including patients, nurses and physicians rated the five nursing activities related to medical implementation as the most important. This is not surprising. As discussed earlier, this category of nursing activities is perceived as vital to a patient's

survival or recovery. Another possible explanation might be the acuity of most hospitalized patients in this teaching hospital. The emphasis on cure was recognized by all the participants. In addition, the manner in which Chinese nurses are educated may also explain this result. Nurses are often taught along with technicians. Nurses have been considered as technicians in Chinese society since 1950. This may explain why medical and technical orientated interventions were considered most important by them.

Category IV concerns the preparation for patients discharge from hospital setting. The results of White (1972), Yang (1974) and Boyle et al (1989) concurred that this category of nursing activities was the most neglected area of hospital nursing practice.

White explained that patients were able to cope with this aspect of their care without any assistance. This "implies that they and their families understood their illness and the care they would require at home and were able to make necessary arrangements to provide this care" (White, 1972, p.102). Second, "perhaps they felt the need for help and instruction but did not recognize this as a nursing responsibility"(White, 1972, p.102). Third, "perhaps they needed instruction and assistance in attaining or maintaining health at home but were unaware of the need" (White, 1972, p.102.).

White (1972) also provided some speculations as to why nurses rated this category of nursing activities the lowest of all. She posed a series of questions around this category of nursing activities. "Do nurses not consider this an appropriate activity for the hospital nurses?" (1972, p. 104) "Do nurse think that only certain type of patients need their assistance in preparing for discharge, and were these type not well represented in the sample?" (1972, p.105) Do nurses think that only those who are poor and not well educated need health teaching and follow-up care?" (1972, p.106) After considering the sample of her patients, White concluded that "opportunities for patient teaching existed, but the nurses in the sample did not recognize them." (1972, p. 107).

Nursing activities that prepare patients for discharge were rated of limited importance by both patients and their nurses in Boyle et al's study in 1989. However, the authors argued that :

The healing process is not complete when patients leave the hospital today. Many go home to periods of recovery considerably longer than their hospital stay. Nurses have the opportunity for more independent action in preparing patients to meet their self-care needs in convalescence. (Boyle et al, 1989, p. 117)

In the current study, the situation is different than that of previous studies. The Chinese patients seemed more aware of the importance of preparing for discharge than their nurses. In other words, the demand for nurses to deliver such nursing care is evident. Again as mentioned before, this demand corresponds with the increasing living standard of Chinese people and the shifting leading causes of death from infectious diseases to cancer and cardiovascular problems. The importance of maintenance of health and prevention of disease are better perceived than ever before in today's China through the mass campaign of health education programs organized by the Ministry of Public Health. Nurses in China seem to have some "catching up" to do in this respect.

The findings of this study provide some evidence that Chinese nurses had lower expectations than did their patients on three categories of selected nursing activities. One is led to conclude that Chinese nurses underestimated their role and function in a hospital setting. Role theory predicts that one's role attitudes are determined by one's social and cultural experiences and how one interprets it. In Chapter two, a brief review of the history of Chinese nursing provided an overview of this social and cultural background in which Chinese nursing has developed. The degradation of nursing in China from 1950-1957 and the Cultural Revolution (1958-1976) served to create the low expectations Chinese nurses currently have of themselves. The reconstruction of Chinese nursing from 1977 onward has not made up for what was lost in those chaotic years of political campaigns.

5.2.2 The Characteristics of Nurse/Patient/Physician and the Extent of Nurse/Patient /Physician Agreement Concerning the Perceived Importance of Nursing Activities

No significant relationships were found between the characteristics of the participants and their rating scores. For the nurses and the physicians, the results of this study suggested that their education level, age, and length of working experiences did not have an impact on their rating scores on the perceived importance of nursing activities. For the patients, gender, diagnosis, occupation, the length of hospitalization, and length of post surgery, did not influence how they perceived the importance of selected nursing activities. These results are consistent with those results of White (1972) and Yang (1974). White (1972) recommended that further studies should be done to obtain meaningful conclusion about the relationship between the characteristics of participants and their views of importance of nursing activities. It seems reasonable to conclude that for this study, none of the above characteristics made any differences in the view of the participants to the importance of selected nursing activities. Therefore, the socioeconomic and cultural factors related to Chinese society which were discussed in section 5.2 appear to be the major forces in shaping the views of nurses, patients and physicians about the role of the nurse.

5.3 Implications

The disagreement observed between patients and nurses offers a unique opportunity to examining current hospital nursing practice and certain aspects of nursing curricula in China. Differences in expectations of the role of the nurse between nurses and patients may help explain patient dissatisfaction and ineffective nursing. As White pointed out:

It is the responsibility of the individual nurse to harmonize her knowledge and skill with the patient's need for assistance. It is the responsibility of the profession to seek ways of implementing each component of the definition of

professional nursing practice. This will entail changes in nursing education and nursing service.(1972, p.110).

White's statement is relevant to the situation of Chinese nursing. However, for Chinese nurses to make changes in their practice, they are facing more hurdles than their colleagues in the West. The political structure in China allows professionals less freedom to make decisions. The poorer economic situation makes the distribution of health care funding in China an even more challenging task. An evaluation of the distribution of health care budgets is needed to decide whether nursing gets an appropriate share. To change the existing poor ratio of nurses to population, more health care dollars are needed to increase the number of Chinese nurses. Until the government decide to do so, the current shortage of nurses will continue. Until a new generation of well trained nurses take teaching and administrative positions, the technically oriented training of nurses will take a long time to change. Under the circumstances, awareness about the difficulties Chinese nurses face and the desire and determination to make changes are crucial. Assistance to bring about desired changes from outside China seems very valuable. Such assistance should not only bring high technology, equipment, and skills, but also changes in nursing education, practice and administration. Ideally, these changes should have long a lasting effect on improving Chinese nursing services.

5.3.0 Concerning Nurse-Patient Disagreement

It seems appropriate that, in planning patient care, more emphasis should be given to physical, comfort related nursing functions especially those such as "provide a clean and comfortable bed." It is also important to emphasize the psychosocial aspect of care such as "take time to talk with a patient's family and answer their question". Considerable effort is required if Chinese nurses are to provide their patients with nursing care that involves teaching, explaining, instructing, and preparing for care at home. This care includes

nursing functions such as "discuss with a patient the amount and type of activity a patient should have at home," "help a patient understand how to plan the diet he/she will need at home," and "help a patient make arrangements for his/her care at home."

Since patients viewed these three areas of nursing activities, i.e., physical aspect of nursing care, psychosocial aspect of nursing care, and preparation for discharge as significant more important than their nurses, nurses, hospital nursing services, and schools of nursing should all be aware of it and engage in bringing about the curriculum changes needed to meet the expectations of the Chinese public.

5.4 Limitations of the Study

As Polit and Hungler (1987) pointed out, the researcher is in the best position to detect and assess the impact of sampling deficiencies, design problems, instrument weaknesses, and so forth, and it is a professional responsibility to alert the reader to these difficulties.

In examining the entire process of this research project, there are concerns with the following areas. Although the sample size of the study was fairly large, the subjects were from an acute care setting and urban areas, therefore the results and interpretations cannot be generalized to other non-equivalent institutions or other populations. Also a convenience sampling procedure was used, therefore caution must be exercised in making a generalized statements about the findings.

Although the instrument used displayed a high reliability (Chronbach's Alpha=0.9779) in this study and content validity was addressed via a panel of Chinese head nurses, the instrument was not constructed in China, nor was it based on a Chinese population. Cultural limitations associated with instrument therefore are of concern.

Because the researcher did not distribute every questionnaire and explain the study to every participant, there are concerns whether subjects really understood the instructions

For example, the instructions ask each subject to rate how they view or perceive the importance of the 48 selected nursing activities. However, the instruction may have been misunderstood as to whether nurses had actually carried out or how well they had performed these nursing functions. This perception would have misled subjects into rating role behaviors rather than role attitudes. The study did not build in controls for this, except that the researcher emphasized this issue with the head nurses. Since the researcher did not explain these directions to every subject, there was still room for this error.

5.5 Recommendations for Future Research

This study was very structured and did not leave much room for the subjects to provide an explanation for their views on the nursing activities studied. A follow-up qualitative study would enrich this study by offering patients, nurses, and physicians an opportunity to explain why or how they rated the importance of the various nursing functions. A qualitative study would give voice to the nurses, physicians, and patients personal views and interpretations. Interviewing informants might reveal a better understanding of the reality of nursing in China, and hence an even better understanding of the role of the nurse as perceived by nurses, patients, and physicians.

A survey study of China's rural population would provide a different perspective on the same set of research questions. Exploring these research questions with a rural sample would be important given that China's rural population represents approximately 80% of the total population. However, if such a study is conducted in China's rural areas, a questionnaire tailored for the rural population and the mode of delivery of health care services should be designed.

5.6 Summary

In this chapter, the discussion of the findings was provided with consideration of the socioeconomic and political situation in China and of previous research findings. In an acute caring setting, although Chinese nurses and patients agreed that the medical implementation oriented nursing activities are the most important, patients expect more nursing care with regard to the three other areas, i.e., physical care, psychosocial care, and preparation for discharge. The low role expectation of Chinese nurses themselves were explained in light of the historical background of Chinese nursing. This survey study thus offers a foundation for further understanding of the role of nursing in the Chinese health care system.

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APPENDIX A

Criteria for Evaluating the Questionnaire

The nursing activities studied in this investigation are categorized in four groups. These are:

1) the physical care in response to physiological needs, 2) psychological aspects of care, 3) implementation of medical care, and 4) preparing for discharge.

1. Is the statement clear and concise enough to enable the respondent to make a judgement? Does it describe an activity appropriate for consideration in this study?

2. Do the statements adequately represent the areas outlined above?

a. Can you suggest additional items that should be included?

b. Are there items that could be deleted without seriously affecting the representativeness of the content?

c. Are there any statements which you find difficult to categorize?

3. Are the instructions to the respondents clear and adequate? If not, what would you suggest?

4. Have you any additional comments?

用于衡量调查表的一些提示

在这项调查之中，所调查的护理工作分成四种。这些种类是：1) 身体护理，2) 精神护理，3) 执行医嘱，4) 准备出院。

1) 这些项目是否叙述清晰和简明，以便读者可以做出判断？这些项目是否适合这个科研题目。

2) 这项目是否恰当地表达了以上四个方面的内容。

a) 你是否可以加一些有关的项目？

b) 你是否认为有些项目可以删除？

c) 你是否认为有些项目不好归类？

3) 调查表中提示部分的文字好懂吗？如果不好懂，请你建议改变的可能性？

4) 你还有其他的建议吗？

APPENDIX B

Information Sheet for Nursing and Medical Staffs

A study is being conducted in this hospital to obtain information that might be useful to nursing in planning nursing care. This information will not be used to evaluate you or the care you give. Please do not sign your name.

Before turning the page please complete the following information:

Date:.....

Circle the appropriate answer to the questions below:

1. From what type of school did you graduate?

- a. Diploma b. Baccalaureate c. Other (please specify)

2. How many years work experience have you had by working as nurse/
physician?

- less than 1, 1-2, 3-5, 6-10, over 10

3. How old are you?

- under 18, 18-25, 25-34, 35-44, 45-54, 55-64, 65 and over

填表人(医生、护士)情况

填写“护理功能重要性调查项目”表，对将来的护理实践会带来很大的帮助，本调查不是用于检查护士的工作质量或态度。请不要把您的名字写在表上。

在您所选择的答案代号上画圈(例，a)。

1. 您的最后学历是什么？

a. 中专 b. 大专 c. 大学 d. 其他(用文字说明)

2. 您当医生或护士多少年了？

a. <1 b. 1-2 c. 3-5 d. 6-10

e. >10

3. 您的年龄

a. <18 b. 18-25 c. 25-34

d. 34-54 e. 55-64 f. >65

Information Sheet for the Patients

A study is being conducted in this hospital to obtain information that might be useful to nurses in planning nursing care. This information will not be used to evaluate the nurses or the care you receive. Your name will not be used in reporting the results of the study.

Before turning the page, please complete the following information:

1. Age

4. Diagnosis

2. Sex

5. Days Post Operation

3. Occupation

6. Hospital Days

填表人(病人)情况

填写“护理功能重要性调查项目”表，对将来的护理实践会带来很大的帮助。本调查不是用于检查护士的工作质量或态度。请不要把您的名字写在表上。

1. 年龄
2. 性别
3. 职业
4. 诊断
5. 手术后几日
6. 住院天数

The Instructions for the Participants

N*.....P*.....D*.....

A). The statements below describe some activities a member of the nursing staff might perform for a patient. Perhaps some of these were done for and some were not. You probably consider some of them more important than other. You are being asked to rate each statement, regardless of whether or not it was done, according to its importance for him ranging from "extreme importance" to "no importance" or "it does not apply." Please read over the entire list. In thinking about the care ofduring the past few days, please indicate the importance of each item by placing a check(x) in the appropriate box. If the statement describes an activity which he (she) can take care of without nursing assistance, or which does apply to him.

B). N*=Nurse, P*= Patient, D*=Doctor.

填写说明书

以下列出的护理工作是护士可能要为病人做的。您也可能会认为其中一些更重要于其他一些。请您对以下的陈述进行评价。无论这些事护士是否做了。根据重要性程度，请评价成“非常重要，极为重要”等六种程度。每一项条款后面有六个格子，请只选择其中一个然后做“√”标记在格子中。

Questionnaire Used in Survey

NURSING ACTIVITIES	EXTREME IMPOR- TANCE	VERY IMPOR- TANT	MEDIUM IMPOR- TANCE	SLIGHT IMPOR- TANCE	NO IMPOR- TANCE	DOES NOT APPLY
1. Take his temperature and pulse.						
2. Give (or assist with) a daily bath.						
3. Assist with care of the mouth and teeth						
4. Provide a clean, comfortable bed.						
5. Help with grooming, such as care of nails hair and/or shaving.						
6. Be sure that he has necessary equipments such as a glass, towel, soap, blanket, etc.						
7. Provide privacy during his bath and his treatments.						
8. Take special care of his skin so it does not become sore.						
9. See that the unit is clean and tidy.						
10. Allow him to make decisions about his own care.						
11. Help him to assume a comfortable or appropriate position.						
12. Notice when he has pain and give him medication if ordered.						
13. Change his position frequently.						
14. Make him comfortable by rubbing his back.						
15. Observe the efforts of treatments ordered by the physician.						
16. Consider his personal preferences when caring for him.						
17. See that the bed pan or urinal are provided when needed.						
18. Help him maintain or restore normal elimination.						
19. Check on bowel functioning and report problems to the doctor.						
20. Help him in and out of bed.						
21. Help him get necessary exercise while he is in the hospital.						
22. Discuss with him the amount and type of activity he should have at home.						
23. Encourage him to take more responsibility for his own care while in the hospital.						
24. Give prescribed medications on time.						
25. Teach him about the medications he will be taking at home.						
26. Plan his care so that he will be able to re- spond while in the hospital.						
27. Provide a comfortable, pleasant environ- ment (proper temperature, free from odors and disturbing noises).						
28. Relieve his anxiety by explaining reasons for his symptoms.						
29. Make him feel that you are happy to care for him.						

NURSING ACTIVITIES	EXTREM IMPOR- TANCE	VERY IMPOR- TANCE	MEDIUM IMPOR- TANCE	SLIGHT IMPOR- TANCE	NO IMPOR- TANCE	DOES NOT APPLY
30 . Assist him with meals.						
31 . See that he has food and/or fluid between meals.						
32 . See that his food is served properly.						
33 . Ask the dietitian to serve him soft foods that he is able to chew.						
34 . Help him understand how to plan the diet he will need at home.						
35 . Be sure he has a copy of his diet.						
36 . Talk with him about topics unrelated to his illness, such as news, hobbies, other interests.						
37 . Plan some diversion or recreation for him.						
38 . Take time to talk with his family and answer their questions.						
39 . Help him make arrangements for his care at home.						
40 . Notice changes in his condition and report them.						
41 . Tell his doctor that he is worried about his condition.						
42 . Be understanding when he is irritable and demanding.						
43 . Take time to listen to him.						
44 . Carry out the doctor's orders.						
45 . Explain about diagnostic tests ahead of time so he will know what to expect.						
46 . Give him pamphlets to read and/or talk with him about his illness in order to help him understand how to care for himself.						
47 . Arrange for a public health nurse to visit him at home.						
48 . Talk with his family about his illness and the care he will need at home.						

The Chinese Translation of the The Questionnaire Used in Survey

护 理 活 动	最为 重要	非常 重要	中等 重要	稍 重 要	不 重 要	不 切 合
1. 量体温和心律。						
2. 每天帮助或给病人洗澡。						
3. 给或帮助病人护理口腔和牙齿。						
4. 提供清洁和舒适的病床。						
5. 帮助病人梳理, 如: 剪指甲, 梳头发和刮胡子。						
6. 提供适当的用品, 如: 玻璃杯、毛巾、肥皂、毛毯等。						
7. 避免当众暴露床旁沐浴及某些诊断、治疗等措施。						
8. 特别注意防止褥疮。						
9. 保障病房的清洁、整齐。						
10. 允许病人参与关于护理他的决定。						
11. 帮助病人选择和维持舒适的姿势。						
12. 观察病人的病疼。如果有处方, 给病人适当的药以解除病人的痛苦。						
13. 给病人经常翻身。						
14. 给病人揉背以使病人感到舒适。						
15. 根据医嘱观察治疗效果。						
16. 在护理病人时, 考虑或尊重病人的意愿或选择。						
17. 在病人需要时, 提供便盆。						

护 理 活 动	最为 重要	非常 重要	中等 重要	稍 重 要	不 重 要	不 切 合
18. 帮助病人维持和重建正常的排泄功能。						
19. 检查肠蠕动功能，并向医生汇报。						
20. 帮助病人上下床。						
21. 当病人住院时，帮助病人做适当的身体锻炼。						
22. 同病人讨论他回家后的活动量。						
23. 当病人在住院过程中，鼓励病人照顾自己。						
24. 按时发药。						
25. 教病人如何在家服药。						
26. 按排护理计划时，给病人留以足够的睡眠时间。						
27. 提供舒适和适当的环境（适当温度，无嗅，无噪音）。						
28. 解释病人的症状以便减轻病人的忧虑。						
29. 使病人感到护士很乐意护理她的病人。						
30. 协助病人进餐。						
31. 保障每餐之间的零食和饮料。						
32. 提供病人适当的饮食。						
33. 向膳食部门订适当的软食品或流质食品供特殊病人需要。						
34. 保证病人制订一份饮食计划带回家。						

护 理 活 动	最 为 重 要	非 常 重 要	中 等 重 要	稍 重 要	不 重 要	不 切 合
35. 帮助病人懂得如何计划回家后的饮食。						
36. 同病人谈与病情无关的话题，如：新闻、爱好、其他兴趣。						
37. 安排一些转移注意力的娱乐活动。						
38. 花时间同病人的亲友谈话和解答他们的问题。						
39. 帮助病人安排在家的护理活动。						
40. 观察病人的症状并汇报。						
41. 转达病人的担忧给医生。						
42. 当病人烦躁和提过分要求时，做到同情和体谅。						
43. 花时间听病人谈病人的不安和焦虑。						
44. 执行医嘱。						
45. 解释有关辅助诊断的检查，使病人有足够的思想准备。						
46. 给病人发有关病人的病的科普文章和手册并加以解释，使病人知道如何护理自己。						
47. 安排社区护士（或家庭病床护士）去家里观察病人。						
48. 同病人家属谈病人的情况和在家时所需的护理。						

APPENDIX C

The University of Manitoba
SCHOOL OF NURSING
ETHICAL REVIEW COMMITTEE

APPROVAL FORM

Proposal Number N#91/10

Proposal Title: "Importance of Selected Nursing Activities in the
People's Republic of China."

Name and Title of
Researcher(s): Yan Duan
Master of Nursing Graduate Student
University of Manitoba School of Nursing

Date of Review: MAY 06, 1991.

APPROVED BY THE COMMITTEE: MAY 06, 1991.

Comments: _____

Date: May 21, 1991

Erna J. Schilder, RN, DNS Chairperson
Associate Professor
University of Manitoba School of Nursing
Position

NOTE:
Any significant changes in the proposal should be reported to the Chairperson for the
Ethical Review Committee's consideration, in advance of implementation of such
changes.

Revised: 91/01/11/se

APPENDIX D

尊敬的医院负责同志：

我的名字叫段燕。我是在加拿大马尼托巴大学读护理硕士学位的中国留学生。作为我的课程的一部分，我准备从事一项研究，其中包括了解中国护士、医生和病人对有关护理活动的重要性的看法。参加者要对一些选出的护理活动进行评判，看哪些更重要一些。（请参考后面附上的表格）。

这项研究活动完全不是用来评价或检查医院护理工作质量的。参加者回答哪些是更重要一些的护理活动，不是回答护士做了什么。请特别注意的是，论文完成后，所有资料全部销毁。

我是否可以得到您的允许从事这项工作在贵医院进行。我希望能够尽早的得到您的回音。

段燕
加拿大马尼托巴大学
护理学院

1991, 6. 28.

English Translation of the Letter to Foreign Affair Office of the Participating Hospital by
the Researcher

Ms./Mr.....

Head of Foreign Affair Office

.....Hospital

Dear Ms./Mr.....

My name is Yan Duan. I am a graduate student in nursing program at University of Manitoba. As part of my master's program, I am planning to do a study to determine the opinions of professional nurses, physicians, and selected patients concerning the relative importance of selected nursing activities. Participants will be asked to respond to a rating scale containing fifty statements about nursing activities. In total, 100 nurses, 100 physicians, and 300 patients will be asked to participate.

This study is in no sense an evaluation of the completeness or quality of the care that is being given. Respondents will be asked what they think is important- not what has been done. It is understood that all information will be confidential. The report will preserve the anonymity of the respondents and the hospital. May I have your permission to conduct this study at your hospital and to obtain the information indicated above? I will appreciate your reply at your earliest convenience.

Sincerely,

Yan Duan

The Letter to the Foreign Affairs Office of the Participating Hospital by the Official
Representative of School of Nursing University of Manitoba

June 27, 1991

President, Fruit Teaching Hospital:

This is to certify that Susan Yan is a graduate student in the Master of Nursing Program, School of Nursing, University of Manitoba. She has completed all of the course requirements for her master's degree which included two courses in advanced nursing research. Susan Yan has now to undertake her thesis research project in order to complete all of the degree requirements. Her research on the role and function of the nurse in China will be very helpful to the development of the C.I.D.A. project between W.C.U.M.S. and The University of Manitoba. Any assistance and cooperation that you could offer to Susan Yan in conducting her research project would be greatly appreciated.

I thank you very much for your careful attention to this important matter

Yours truly,

R.N., Ph.D.

Associate Director
University of Manitoba
School of Nursing

APPENDIX E

护理科研调查协议

加拿大马尼托巴大学护理学院副院长 J. I. Beaton (以下简称甲方) 与中国四川华西医科大学附属第一医院 (以下简称乙方) 就护理科研调查工作, 双方经协商达成下述协议:

一、甲方委托乙方搞护理科研调查工作。调查形式为填写表格。

二、调查表格的内容限于由甲方提供并经乙方同意的范围。

三、甲方负责:

1) 提供所需表格。

2) 提出调查工作的具体要求。

3) 参加调查工作并提供技术指导。

四、乙方负责:

1) 对表格设问的可行性提出具体意见;

2) 组织护士100名, 医师100名, 病员300名, 按甲方的要求完成由甲方提供经乙方认可的表格填写工作。

3) 按甲方要求发出和收回表格并完成基础统计工作。

4) 收回的表格全部由乙方保存, 乙方只向甲方提供基础统计的数据原件。

五、调查工作从1991年7月1日开始, 1991年7月30日结束。

具体安排为:

调查准备工作 1周 (7月1-7日)

发、收、填表格 2周 (7月8-21日)

统计工作 1周 (7月22-28日)

结束工作、提交数据 (7月29-30日)

六、劳务补贴费用由甲方提供, 共计人民币700元正

(注: 因本调查对CIDA计划有帮助, 故免收其他费用)

甲方:

July 1, 1991

乙方:

任经纬

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1991-7-1

APPENDIX F

Disclaimer

The study is about the importance of nursing activities. You are being asked to voluntarily give your opinion on the statements in this questionnaire, you will be giving consent to participate in the study. Your name is not on the questionnaire but a identification number. Your questions will be answered and you may withdraw from the study at any time.

填 表 申 明

- 一、本表是护理功能重要性调查项目。填表人属于自愿参加。
- 二、表中各项由您选择，若认为不合适可以不填写。若填表过程中，当您填写了一半时就不愿填了，也没有关系。
- 三、若有不清楚的地方，可以提出。
- 四、您的名字不写在调查表上。您的合作将会为护理工作的改进做出贡献。