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Performance and Satisfaction Ratings by Nurses, Supervisors, and Patients in Jordanian Government and Private Hospitals

Diab Mousa Al-Badayneh

Western Michigan University

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PERFORMANCE AND SATISFACTION RATINGS BY NURSES, SUPERVISORS, AND PATIENTS IN JORDANIAN GOVERNMENT AND PRIVATE HOSPITALS

by

Diab Mousa Al-Badayneh

A Dissertation Submitted to the Faculty of The Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Philosophy Department of Sociology

Western Michigan University
Kalamazoo, Michigan
August 1990

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PERFORMANCE AND SATISFACTION RATINGS BY NURSES, SUPERVISORS, AND PATIENTS IN JORDANIAN GOVERNMENT AND PRIVATE HOSPITALS

Diab Mousa Al-Badayneh, Ph.D.
Western Michigan University, 1990

This is a study of performance and satisfaction ratings by supervisors, patients, and nurses in the Jordanian government and private hospitals. Comparisons of total performance ratings scores as well as individual performance items were made between (a) registered nurses vs. supervisors and registered nurses vs. patients within government and private hospitals and in all hospitals combined; (b) combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals; and (c) total performance ratings scores only between registered nurses vs. supervisors and registered nurses vs. patients within each hospital. Comparisons of total satisfaction ratings scores as well as individual satisfaction items were made between separate ratings of registered nurses, supervisors, and patients between government and private hospitals. In addition, the Pearson coefficient correlation was used to test the relationship between (a) a rater's overall satisfaction and rater's ratings of the overall effectiveness in all hospitals combined, and (b) a rater's total satisfaction scores and rater's mean ratings. This study included

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the five largest government hospitals and the five largest private hospitals in Jordan. The sample consisted of 303 registered nurses in the day shift, their 60 supervisors, and a convenience sample of 400 patients.

Performance Rating Questionnaires were administered to all subjects. The data were analyzed utilizing t-test, and Pearson correlation coefficients.

Significant differences were found at alpha .05 level in the total performance scores of (a) registered nurses vs. supervisors and registered nurses vs. patients in all hospitals combined, (b) registered nurses vs. supervisors within government hospitals, (c) registered nurses vs. patients within government hospitals, and (d) patients within government hospitals and private hospitals. Significant differences were found at alpha .05 level in the total satisfaction scores of registered nurses vs. patients between the government and private hospitals. A positive relationship between rater's satisfactions and performance ratings was found.

Difference in ratings between raters were interpreted as a result of the differences in the levels of the raters, where each rater occupies a different vantage point vis-a-vis the ratee.
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CHAPTER I

BACKGROUND AND STATEMENT OF THE PROBLEM

Statement of the Problem

The three main purposes of this study are: (1) to examine differences between performance ratings of registered nurses by nurses (self-ratings), supervisors, and patients; (2) to examine the relationship between job performance and job satisfaction; and (3) to study both purposes listed above in the context of organizational structure variables between and within government and private hospitals. Four major assumptions underlie this study:

1. Raters at different hospital levels often have different orientations toward ratees and, therefore, rate registered nurses' performance differently.

2. Raters from different types of hospitals (government hospitals vs. private hospitals) rate registered nurses' performance differently.

3. Raters at high positions (supervisors) are more satisfied than raters from low position (registered nurses) in the hospitals.

4. The higher the rater's satisfaction, the higher the rater's ratings of registered nurses' performance.
This study was concerned with examining the differences between the type of hospital and the type of rater in registered nurses' performance ratings' behavior and raters' satisfaction. More specifically, this study is concerned with: (a) the comparison of the total performance index scores as well as individual performance item scores between registered nurses vs. supervisors and registered nurses vs. patients within government and private hospitals and in all hospitals combined; combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals; comparisons of total performance ratings only between registered nurses vs. supervisors and registered nurses vs. patients within each hospital; and (b) comparisons of total satisfaction ratings scores as well as individual satisfaction items between separate ratings of registered nurses, supervisors, and patients between government and private hospitals. In addition, Pearson coefficient correlation was used to test the relationship between (a) rater's overall satisfaction and rater's ratings of the overall effectiveness in all hospitals combined, and (b) rater's total satisfaction scores and rater's mean ratings. The following seven questions were generated:

1. Are there differences between raters (nurses self-ratings vs. supervisors and nurses self-ratings vs. patients) on the total performance index scores as well as in the individual item scores of nurses' performance in all hospitals combined?
2. Are there differences between raters (nurses self-ratings vs. supervisors and nurses self-ratings vs. patients) on the total performance index scores as well as in the individual item scores of nurses' performance in government hospitals as well as in private hospitals?

3. Are there differences between government hospitals and private hospitals on the total performance index scores as well as in the individual item scores of nurses' performance in all raters combined?

4. Are there differences between government and private hospitals on the total performance index scores as well as in the individual item scores of nurses' performance in combined as well as separate ratings of nurses, supervisors, and patients?

5. Are there differences between raters (nurses self-ratings vs. supervisors and nurses self-ratings vs. patients) on the total performance index scores within each hospital?

6. Are there differences between government and private hospitals on the total satisfaction index scores as well as in the individual item scores in combined as well as separate ratings of nurses', supervisors', and patients' satisfaction?

7. What is the relationship between rater's satisfaction and rater's ratings of nurses' performance?
The Importance of the Study

The field of nursing has not been an attractive one to employees and to researchers in Jordan. One reason may be attributed to the stigma which has long been associated with the nursing profession. This has also contributed to the lack of research in the field in general. As organizations, hospitals are structured, with parts, positions and levels that are systematically interrelated (Pugh, Hickson, Hinings, & Turner, 1968). Hospitals vary in their structures; this variation raises the question of whether differences in the structure of the hospitals are related to differences in the behavior, performance, and satisfaction of their members. The advantages for social scientists in studying hospitals is that they differ significantly from one another and are more accessible than most organizations (Freidson, 1963). Freidson (1963) stated that "since they are generally identified with the universalism of science, they cannot easily excuse themselves from study by reference to competitive trade secrets" (p. viii). Moreover, hospitals are oriented toward treatment and they welcome knowledge for action which may improve their effectiveness. Hospitals have captive audiences of patients who are in a dependent position and vulnerable to research. Hospitals, like other accessible nonprofit organizations, are of interest because of their social-service goals (Ferrow, 1965).

The organization as a source of variation in performance ratings and satisfaction has received less attention than other factors.
affecting job performance and satisfaction. Kane and Lawler (1979) suggested that organizational characteristics are likely to influence the accuracy of performance ratings. Factors like uncertainty and specificity associated with rank and position and ratee autonomy in performing tasks and power distribution are believed to have an impact on performance ratings. Kane and Lawler (1979) concluded that the social characteristics of the organization may significantly impact performance ratings. Poor organizational climate as characterized by low levels of trust and openness are likely to result in biased and inaccurate ratings. Performance description and prediction plays an important role in all personnel decisions (Landy & Farr, 1980).

Variation in climate, policies, tasks, and functions within a population of organizations may account for these differences (Zammuto, London, & Rowland, 1982). Social characteristics of an organization may significantly impact performance appraisal (Kane & Lawler, 1979). Organizational culture may impact on performance in the way meanings are shared, transacted, interacted, and emerged (Frost, Moor, Louis, Lundberg, & Martin, 1985).

Following the Hawthorne studies, more emphases were put on the worker-management comparison. This tradition carried over the 1950s when management theorists (Argyis, 1975; Haire, 1956; & Likert, 1961) continued to focus on the relationship between managers and subordinates. The relationship between job morale or satisfaction and organizational level was the concern of the early studies.
following the Hawthorne tradition. A summary of the literature through 1956 related to job satisfaction and organizational levels by Herzberg, Mausner, Peterson, and Capwell (1957). They concluded that the higher the level of the occupation, the higher the satisfaction. Studies by Browne and Neitzel (1952); Handyside (1961); Porter (1961); and Rosen (1961) reported that supervisors or higher levels of management were more satisfied than subordinates. Raters at different organizational levels observe significantly different facets of a ratee’s job performance in most organizations. If so, their ratings ought to reflect these differences (Borman, 1974). High performing organizations in environments with relative certainty tended to be more bureaucratic in form, but those in uncertain environments relied heavily on unbureaucratic, organic, coordinating mechanisms (Lawrence & Lorsch, 1967). On the other hand, Galbraith (1973) hypothesizes that as task or environmental uncertainty increases, the information-processing requirements of an organization increase. But bureaucratic control mechanisms (rules and hierarchy) have limited information-processing capacity (Tushman & Nadler, 1978), and their use in uncertain situations can lead to an excess of demand for information over the capacity to process information. To achieve effectiveness under conditions of uncertainty, organizations must adopt a structure with higher information-processing capabilities.

This study is believed to be the first of its kind; thus, it might provide necessary information to make possible an assessment of
employee's performance and satisfaction in the government and private sector. Understanding the relationship between raters' satisfaction and rater's ratings of registered nurses' performance might help administrators increase employees' productivity in both public and private sectors.

Objectives of the Study

Performance rating is recognized as an important element of the job for managers and supervisors as well as for employees. Results of ratings are helpful for making administrative decisions about employees (e.g., efforts to reward employees and promotion); performance ratings can be used to help employees identify potential areas for improvement and growth and to narrow the gap between supervisors' opinions and subordinates' opinions about what is considered a good performance. As a result of these functions, managers can obtain higher levels of productivity from employees. The use of multiple sources for performance ratings—self, supervisors, peers, and outsiders—has gained considerable acceptance. Schriesheim (1980) argued that 75 percent of recent research has focused on the leader-subordinate dyad, and suggested that one unfortunate consequence of this focus has been the divorce of leader-subordinate relations from their social context. Others (Becker, 1981; Oldham & Fried, 1987; Sundstrom, 1986; and Wineman, 1982) reached similar conclusions. Several advantages of using multiple raters have been cited: enhanced ability to observe and
measure various job facets (Borman, 1974; Harris & Schaubroeck, 1988); greater reliability, fairness, and ratee acceptance (Latham & Wexley, 1982); and improved defensibility of the performance appraisal program from a legal standpoint (Bernardin & Beatty, 1984).

Uses of performance appraisals can be divided into two types: (1) between and among individual comparisons, and (2) organizational uses. Uses of the individual main focus is to distinguish between the employee's performance (e.g., promotion) and to assess strengths and weakness of the employee's performance (e.g., assess training needs). Examples of the first type of performance appraisal uses are determining employee training needs, merit reviews, and salary administration (Levine, 1986). Another researcher (Rendero, 1980) found that most frequently mentioned uses of performance ratings included merit review on salary action, employee development, and feedback to employees. Other uses of performance ratings were studied by Campbell, Dunnette, Lawler, and Weick (1970). Their survey of 33 organizations found that performance appraisals were used in replacement and promotion decisions, training needs assessment, and as a motivation tool.

There is also theoretical support for the organizational uses of performance appraisals. This support comes from the study which tests the hypothesis that features of the organization and its culture and environment influence the way in which performance appraisal is used to make decisions (Joyce & Slocum, 1984; Walton, 1984). Also, other researchers reviewed the published research on
the uses of performance ratings (Cleveland, Murphy, & Williams, 1989). They reviewed the research published in 11 professional and trade journals for the period 1980-1986 and they were able to identify 20 separate uses for performance appraisal. They categorized these uses under four major factors: (1) between individuals, (2) with individuals, (3) system maintenance, and (4) documentation. The between individuals category is composed of salary administration, promotion, retention, or termination, recognition of the individual performance, layoffs, and identification of poor performance. The with individuals category identifies individual training needs, performance feedback, determines transfers and assignments, and identifies individual strengths and weakness. The system maintenance category is composed of personnel planning, determination of organizational training needs, evaluation of goal achievement, assistance in goal identification, evaluation of personnel system, and identification of organizational developments. The documentation category consists of criteria for validation of research, documenting personnel decisions, and meeting legal requirements.

The major reasons for use of self-appraisals comes from the trend toward the use of a developmental focus. This places major emphasis on the personal growth, self-motivation, and organizational potential of the employee. It becomes an important part of the feedback process to the employee. Self-appraisals may complement evaluative supervisory ratings, may help employees to improve their job...
performance (Campbell & Lee, 1988), and can serve several distinctive functions within an organization (Bassett & Meyer, 1968). Another function of self-appraisals is to lessen defensiveness of employees regarding the overall appraisal process and to improve job performance.

A number of scholars have argued that self-ratings can promote personal development, improve communication between supervisors and subordinates, and clarify differences of opinion between supervisors and other managers (Cummings & Schwab, 1973; Schneider, 1982). Researchers have focused on using self-appraisal as supplements to or substitutes for more traditional performance evaluations (Landy & Farr, 1980). Researchers have begun to emphasize self-appraisal as developmental tools (Hake & West, 1982; Wexley & Klimoski, 1984). Campbell and Lee (1988) identified two major related uses of self-appraisal in the performance appraisal process:

1. Self-appraisal may be used as additional data points. Disagreement between raters raises fundamental concerns about the evaluation process as a whole. If disagreement between self-appraisal and other sources is not extreme, then self-appraisal can be combined with these other evaluations, increasing overall reliability.

2. As integral components of the evaluation system, self-appraisals are used to gather performance information that is either not obtained or impossible to obtain through other channels.

Campbell and Lee (1988) concluded that research on self-appraisal
must go beyond the agreement approach. One research direction involves empirical tests of future-oriented self-appraisal and the effects they have on job performance.

Other researchers were concerned with the supervisors' ratings of subordinates. There are two reasons for concentrating on the ratings of the performers by superiors. The hierarchy of formal authority which exists in most organizations legitimizes the right of the superior to make both evaluative and developmental decisions concerning his subordinates. To behave otherwise would violate the expectations of superiors as well as subordinates (Cummings & Schwab, 1973).

Organizations, especially government organizations, utilize evaluators from outside the organization to engage in the appraisal process. Because of the competition within private hospitals and between private and the government hospitals, hospitals might use patient evaluation as a feedback technique for improving services.

Organizations are like human systems. Though an organization may be characterized by its physical structure, it functions only when people fill the structural positions, act, interact, and react. An individual's behavior within an organizational setting represents an interaction between the behavioral demands of the task situation and the behavioral requirements of the individuals (Herman, Dunham & Hulin, 1975). According to Blau (1970), three major relationships between organizational size and organizational structure were found: (1) increasing the organizational size reduces the relative size of
an administrative component, (2) increasing organizational size increases differentiation, and (3) increasing differentiation increases the relative size of an administrative staff.

Cleveland et al. (1989) reported that organizational characteristics (intensity and autonomy) were significantly related to the individual uses of performance appraisal, and to the system maintenance. According to Herman et al. (1975) "grouping employees by organizational-structure characteristics accounted for as much or more of the variance in the responses than grouping by indices of demographic background" (p. 207). Moreover, Herman et al. (1975) contend that the trend in previous research has important theoretical and empirical implications and asked the following:

Why should an employee's position in the organizational structure be related more precisely to his responses to his work environment than his background? Why should personnel managers hire employees with specific demographic characteristics for specific positions, if characteristics of positions are more important for determining responses than characteristics of background? (p. 207).

This is a study of performance and satisfaction ratings by supervisors, patients, and nurses in the Jordanian government and private hospitals. Comparisons of total performance and satisfaction ratings scores, as well as individual performance items, were made between (a) registered nurses vs. supervisors and registered nurses vs. patients within each hospital and in all hospitals combined, (b) registered nurses vs. supervisors and registered nurses vs. patients within the government and the private hospitals, and (c) combined as well as separate ratings of registered nurses, supervisors, and
patients between government and private hospitals. In addition, the relationship between rater's satisfaction and performance ratings was also measured.

The main objective of this study was to examine the mean differences in ratings of registered nurses' performance on the total performance index as well as for each of the performance index items between the following six groups: (1) registered nurses self-ratings vs. supervisors' ratings and between registered nurses self-ratings vs. patients' ratings in all hospitals combined; (2) registered nurses self-ratings vs. supervisors ratings and between registered nurses self-ratings vs. patients' ratings in the government, and private hospitals; (3) government and private hospitals for all raters combined; (4) government and private hospitals for registered nurses, supervisors, and patients ratings; (5) registered nurses self-ratings vs. supervisors' ratings and between registered nurses self-ratings vs. patients' ratings on the total performance index for each participating hospital; and (6) the government and the private hospitals for registered nurses, supervisors, and patients. Additionally, (a) to examine the relationship between rater's satisfaction and rater's ratings of registered nurses' performance; (b) to test the underlying theoretical assumptions of this study in Jordanian culture; and (c) to test the instrument in a cross-cultural examination and compare the findings in Jordanian hospitals to American hospitals. A comparison of hospitals in the U.S.A. and Jordan would make valuable contributions to sociological analysis.
Background of the Problem

Jordan was established on April 11, 1921, and obtained its independence from the British on May 25, 1946. In April 1950 the West Bank was united with the East Bank. In June 1967 the West Bank was occupied by the Israelis, and in 1988 Jordan discontinued legal and constitutional ties with the West Bank. Jordan is the crossroads of the Middle East and of three continents—Europe, Asia and Africa. It shares common borders with Syria to the north, Iraq to the east, Saudi Arabia to the east and south, the Gulf of Aqaba and the Red Sea to the south, and the West Bank and Israel to the west (see Figure 1). The area is 96,199 square kilometers (36,832 square miles). Jordan's population rose from 587,000 in 1952 to 2.8 million in 1987. Yearly population growth is 3.7 percent. The average urban family size is 6.4 persons, and rural family size is 6.6. Most of the population is concentrated in urban areas (Ministry of Health, 1988).

During the past few decades, Jordan witnessed substantial progress in the field of education. The number of students in the government and private elementary, preparatory and secondary schools rose from 240,300 in 1955 to 863,900 in 1985, while teachers increased from 6,788 to 34,119 respectively. Another important development in the educational field was the Law of Education (No. 16) enacted in 1964, stipulating nine years of compulsory education in all regions of Jordan. There are four universities in Jordan. In 1984 there were 825,000 students, of whom 56,210 were pursuing higher
education in universities and community colleges; plus 60,000 were studying at universities abroad.

Figure 1. Map of Jordan
The illiteracy rate in Jordan was 28 percent in 1987 for people aged 15 years and over. The illiteracy rate among females is considered high (40.1%) compared to males (17.3%), and in rural areas is higher (34.5%) than in urban areas (20%) (Ministry of Health, 1988).

Health System in Jordan

Jordan, like most other developing countries, has given high priority to its economic and social development. Health concerns have been given a top priority in the Jordanian Four-Year Plan for Economic and Social Development (Ministry of Planning, Jordanian National Four Year-Plan, 1985-1989). There is great emphasis in the plan on developing, expanding, and upgrading health services in the country. The goal of the plan is to reduce the percentage of the total population not receiving direct health services from 8.8% in 1985 to less than 3% by the year 2000. Long-term goals are to raise the life expectancy to 69 years for males and 72 years for females by the year 2000, as compared to 67 years and 71 years, respectively, in 1985. The plan is also designed to reduce the infant mortality rate to about 40 per thousand for those less than one year old and to about two per thousand for those 1-4 years old, as compared to 60 per thousand and five per thousand respectively in 1985. The long-term emphasis is on preventive medicine, preliminary health care, and health education. During the last 24 years, there has been significant progress in the health sector at all levels (private sector, and the government "public" sector). This progress has been
measured by the following indicators: (a) a decrease in the infant mortality rate from an estimated 151 per 1000 in 1961 to 60 per 1000 in 1984, (b) an increase in life expectancy (after the first year of life) from 45.8 years for males and 46.5 years for females in 1961 to 67 for males and 71 for females in 1984, and (c) improved services and enlarged facilities in both urban and rural areas. The ratio of physicians to population increased from 1.8 per 10,000 in 1961 to 11.4 in 1984. In 1987 there was one doctor for every 668 people, and 6.5 registered nurses for every 10,000 people. The number of registered nurses employed by the Ministry of Health rose from 229 in 1980 to 439 in 1987; the total number of registered nurses employed in both the public and private sectors in 1990 is 2047 nurses. The number of nurses working in the hospitals in Amman city rose from 12 in 1940 to 887 in 1984. The registered nurses rate per 10,000 people was 8.6 in 1988 compared to 9.5 in the Arab States, 10 in the developing countries, and 68 in the developed countries for the same year. The number of nurses graduating rose from 46 in 1977 to 159 in 1987 and declined to 114 in 1988. The physicians rate per 10,000 people was 16.3 in 1988 compared to 7.5 in the Arab States, 6.5 in developing countries, and 27 in developed countries for the same year. The mortality rate remains approximately the same (1.4%) from 1981-1987 (Ministry of Planning, 1987).

In the last Four-Year National Plan (1981-1985), five obstacles were identified involving the health sector in general, and particularly in hospitals:
1. The implementation of the plan lacked adequate information systems. Information in planning there was based on demands of the government agencies and not on the actual population needs.

2. Low utilization by the public of primary care services attributed to the lack of public awareness of the benefits of primary health care (feasibility) and lack of confidence in the available services.

3. The multiplicity of government and private sector institutions offering health services gave rise to duplication as well as to discrepancies in the level of care, costs and medical advice. This can be attributed to the lack of coordination among health organizations within and between health sectors.

4. There is imbalance in the allocations of the health services.

5. The great demand on medical education (medicine, pharmacy, dentistry) has led to a surplus of graduates who can no longer be absorbed by the Arab oil-producing states as they were in the past. The result has been rising unemployment of doctors, pharmacists, and dentists. On the other hand, the lack of interest in paramedical and ancillary studies has produced a shortage that threatens the growth of the health sector as a whole. The conclusion was that the health sector suffers from poor management in general.

In the coming Four-Year National Plan (1985-1989), the most important goals for the health sector involve research development, in which the following steps need to be taken: (a) encourage basic and applied research, (b) make sufficient allocations in the annual
the budget for this purpose, and (c) view the role of the universities, hospitals and medical agencies as central to the overall research effort), and management effectiveness. This can be achieved through: (a) provision of an adequate number of managers in various specialties at graduate and postgraduate levels; (b) selection of candidates with proper academic training, practical experience, and an ability to serve as trainers; and (c) establishing an adequate health information system and introducing computers on a wide scale (Ministry of Planning, 1987).

### Hospitals in Jordan

There are 26 government hospitals administered by the Ministry of Health, and 28 private hospitals administered by their owners. The principal hospital operational divisions are medical, nursing, diagnostic, therapeutic support, financial, personnel, and hotel. All hospitals provide services both to inpatients who are admitted to the hospitals and assigned a bed, and to outpatients who come to an emergency department. Government statistics showed that there were four hospitals in Amman, the capital city, in 1940. Of these, two were government hospitals and two were private hospitals. The number of hospitals in Amman rose from 4 in 1940 to 19 in 1984 (4 government hospitals and 15 private hospitals) (Ministry of Health, 1987).

In 1988, 338,444 patients were admitted into all hospitals. Of this number there were 70.9% in the government and 29.1% in the private hospitals. The average stay in the government hospital was...
4.4 days and in the private hospitals, 2.5 days. Hospital beds in Jordan increased from 17 per 10,000 in 1981 to 18.8 in 1984, and the number of health centers increased from 61 in 1981 to 150 in 1984. The bed rate per 10,000 was 19.2 in 1987. The number of beds in the hospitals administered by Ministry of Health rose 22% in 1987 compared with 1985. The percentage of occupancy rate rose from 68.3% in 1981 to 69% in 1987. The Ministry of Health budget rose from Jordanian Dinar (JD) 1.0 million in 1961 to JD 20.0 million in 1984 (Ministry of Health, 1987).

In 1987 five new hospitals were established in Irbed, Amman, Karak, Tafila, and Alrowished with capacities of 500, 500, 200, 100, and 16 beds respectively. The total cost for upgrading hospitals is estimated at JD 16.64 million to be disbursed from the general budget for the period 1986-1990 (Ministry of Health, 1987).

History of Nursing

Nursing today represents a long history of development from ancient times. According to Dock and Stewart (1920), the function of nursing in earlier centuries--beginning in A.D. 1--was to heal. This function was de-emphasized as the field of medicine gained ascendancy during the Industrial Revolution (Ehrenrich & English, 1979). After World War II, nursing was not an autonomous profession, nor did the profession know what its function should be. This left nurses in a major identity crisis (Peplau, 1981). Due to the expansion of medical science, nurses became medical assistants by focusing their
attention on monitoring the technology (Peplau, 1977). Beginning in 1943 and expanding in the 1960s to the 1980s, nurses, through their practices and their publications began to recognize, investigate, and define nursing as the diagnosis and treatment of human responses to actual and potential health problems (Fochtman, 1987).

The American Nurses Association (1978) defines nursing in its publication, Nursing, A Social Policy Statement, as the "diagnosis and treatment of human responses to actual or potential health problems" (p. 9). This definition provides a paradigm to the profession of nursing. Developments in the nursing profession reflect many things across time: (a) its social context; (b) its power or the lack of it; and (c) its education and preparation to practice, as well as the relationship of nursing to other health care professions, nursing and other disciplines, and the public attitude towards the nursing profession (Kelly, 1985).

History of Nursing in Jordan

Muslims used mobile hospitals for the first time in history. In the ninth century, during the reign of the Caliph Harun al-Rashid, a hospital was founded at Baghdad. Another hospital was built there in the next century by Calipha al-Muktadir. A third hospital founded at Baghdad in 970 had a staff of twenty-five physicians and was used for the teaching of medical students (Rosen, 1963). Three major factors contributed to the introduction of the nursing profession to modern Jordanian society: (1) It was introduced to Jordanian society
by missionaries in the late 1920s; (2) Christian hospitals, like Mumodani hospital in the Christian city of Ajloon and Ofstawctoria Hospital in Jerusalem, contributed significantly to providing the health sector with trained nurses, especially in the early years of the establishment of the state of Jordan; and (3) British colonialism also participated in the introduction of the profession to Jordanian society. However, during the late 1920s the nursing profession was not generally accepted by Jordanian society.

Historical Developments

Many factors attributed to the aloofness of men and women in Jordan toward nursing and not wanting to be involved in the profession, especially before the 1960s. Men considered it a feminine profession and rejected it on that basis. Men also did not believe in working in service professions in general. In addition, the nursing profession was stigmatized as unacceptable work for females, which negatively affected those who chose it as their profession. Serious social stigma was associated with nursing, such as being unable to get married or being rejected socially because of being a nurse. Roots of this stigma were found in the stereotypes about nursing practices in hospitals.

Some obstacles contributed to the delay of the full acceptance of nursing as a profession for women:

1. Jordanian society is largely traditional and religious. According to religion practices, women should not work side by side
with men, especially "strangers," i.e., anyone who is not a blood relative such as brother, father, or husband. Socially, people do not respect a woman who is working in an environment where the opportunity of social interaction with men is highly likely, because of the fear that sexual intercourse will be a result of that interaction.

2. Organizational factors, such as work conditions and separation in work place, make it hard for women to work any time other than regular daytime hours. Women, especially married women, do not like working in shifts B and C. Shift B operates from 3:00 PM to 11:00 PM, and shift C operates from 11:00 PM to 8:00 AM. Transportation to and from the hospitals sometimes adds another problem to the rejection of working in shifts B and C. Nurses prefer working in shift A which starts at 8:00 AM and ends at 3:00 PM. Providing high levels of protection is also associated with the integrity of the family. It would be unthinkable behavior to allow women to be in a situation which threatens the integrity of the family, such as walking alone at night.

The case for Christians, however, has been different than for Muslims. The majority of Christians are concentrated in specific cities like Ajloon, Madaba, and Beit Sahour (in the West Bank). For Christians, being a female nurse does not present problems as for Muslims.

The first nursing school in Jordan was established in 1952 to provide services like midwifery, mother care, and child care. In
1953 the same school became the first Nursing School in Jordan. Students who completed the 9th grade at that time were eligible for admission to the Jordanian College of Nursing. In 1966 admission was upgraded to the 12th grade. Until 1958 it was under foreign administration. Now the Ministry of Health in Jordan administers and regulates the study in the Jordanian College of Nursing. Students receive JD 40 per month, and are provided free transportation and hotel accommodations. Students graduate with a diploma and are eligible for a B.A. in nursing after studying two years at the University of Jordan (Ministry of Health, 1988).

In 1961 a Jordanian Society for Nursing was establised, and was admitted to the International Nursing Council in the same year. In 1972 the Society for Jordanian Nurses was established. The major goals of the society are to regulate and develop the profession of nursing. Also, it defines nursing as a profession which provides services to both the sick and healthy (prevention and treatment).

In 1972 a new College of Nursing was established at the University of Jordan. Students graduate with a B.A. degree in nursing. The establishment of the college of nursing was difficult and was hampered by negative attitudes toward the profession in general. It was difficult to convince students to enroll in the nursing school. One step to facilitate this was taken by the president of the University of Jordan (Almajali), whose daughter registered in the school to set an example to show that there is nothing wrong with the nursing profession. This step reinforced the
importance of being a nurse and the promises the profession had for women in Jordan.

In 1975 the Ministry of Education started a new program to narrow the gap in the Jordanian market of supply and demand for nurses. A new branch of nursing in government schools was established. The number of schools offering this speciality rose from one in 1975 to 18 schools in 1987. The number of students rose from 90 in 1975 to 1100 in 1986. A national committee was established in 1984 to organize and direct students to the nursing profession and to develop the nursing profession. Finally, the number of registered nurses rose from 229 in Ministry of Health hospitals in 1980 to 439 in 1987. There are a total of 2047 nurses in Jordan in 1990 (Ministry of Health, 1988).

In 1984 two nursing community colleges were founded, one in Irbid and one in Zarka. The 1980s can be considered the waxing of the profession of nursing. Men for the first time became significantly involved in the profession. Admissions to the college of nursing at the University of Jordan far surpassed expectations. Before the 1980s nursing was considered a female profession and even for women, it was not widely accepted. Now in almost every government hospital, as well as in many other private community colleges, there is a school for assistant nurses. Jordanian National Medical Institute was established in 1988 to organize and coordinate services in the government health sector. Jordanian National Medical Institute is responsible for Ministry of Health hospitals, Royal Medical Service
hospitals, Jordan University hospital, and military hospitals (Ministry of Health, 1988).

In sum, the late 1970s and 1980s witnessed a changed attitude toward the profession of nursing. Mass media played an important role in changing citizens' attitudes toward nursing. Top political figures (e.g., Queen Alia and Queen Noor) have promoted entering the nursing profession and have rewarded older nurses for their contributions and services to the health field. The Jordanian General Union for Women also played an important role through local conferences aimed at increasing public awareness of women's important issues, such as job, education, and freedom of choice.

Outline of the Study

This study consists of five chapters. Chapter I includes the background and statement of the problem, importance of the study, and objectives of the study. Chapter II presents a review of the theoretical background; a definition of nursing; a historical overview of nursing practice; and the selected literature which includes structural differences, job related factors, demographic characteristics of rater and ratee, interaction of rater-ratee characteristics, and job satisfaction and job performance.

The methodology used to carry out the study is outlined in Chapter III. This chapter includes descriptions of the research setting, sample, research instrument, pilot study, procedures, research questions, and research hypotheses.
Chapter IV contains a presentation of the findings which were obtained from registered nurses and their corresponding supervisors and a convenient sample of patients. It also includes the data analysis.

Chapter V includes the discussion of the results, limitations of the study, implications for practice, and recommendations for further research.
CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter consists of three sections: (1) theoretical background, (2) theoretical model of the study, and (3) review of selected empirical studies.

Theoretical Background

This section consists of two parts: (1) a review of the related theoretical literature to organizational structure, and (2) the relationship between job performance and satisfaction.

Organizational Structure

Theoretical literature in sociology in the area of organizations, from Weber's first writing on bureaucracy in the 1920s, and in industrial psychology, since the time of Hawthorne studies in 1927, takes as a fundamental principle the importance of structural factors in affecting the behavior of organizations and their employees within the organizations. Merton (1968) focuses attention on the influence exerted by social structures on patterns of conduct. He analyzes how social regularities in behavior become institutionalized and modify the social structure. Merton's emphasis is on the relationships between elements of the social structure and an observable pattern of conduct rather than directly on the
relationships between various abstract elements of social structure, as it is in Parsons. Organizational theorists distinguish between two types of structure: tall and flat. A tall organization has many levels relative to the total size of the organization, whereas a flat organization has only a few levels (Porter & Lawler, III, 1965). Tall structure improves performance by allowing for close supervision and therefore, complete understanding by supervisors of the subordinates activities (Worthy, 1955). Another example of sociological interests in the study of organizations is Perrow (1965) who studied the technology, structure, and goals in hospitals. Students of organizations focus on structure and its effects on organizational behavior; for example Merton’s (1968) analysis of role sets, status, and status-sets, and especially his focus on what may be called the major mechanisms that organize the emergent structural properties of social structure and that influence the behavior of individuals and shape many specific details of the structuring of concrete social organization. He stated the following:

A formal, rationally organized social structure involves clearly defined patterns of activity in which, ideally, every series of actions is functionally related to the purpose of the organization. In such an organization there is integrated a series of offices, of hierarchized status, in which inhere a number of obligations and privileges closely defined by limited rules (p. 249). ...The bureaucratic structure exerts a constant pressure upon the official to be "methodical, prudent, disciplined" (p. 252).

Kane and Lawler (1979) argued that organizational characteristics and structures influence employees' performance.
Structural characteristics like high formalization, high centralization, and big size are believed to have different effects than low formalization and loosely coupled organizations. Blau (1970), in his formal theory of differentiation, inferred two generalizations from cross-sectional data on 53 government agencies and their local branches. These generalizations were "increasing size generate structural differentiations along various dimensions at declining rates" (p. 204) and "structural differentiation in organizations enlarges the administrative component" (p. 213). Blau operationally defined organizational size as number of employees; differentiation as number of formal structural components such as levels or divisions; and an administrative component as the number of staff personnel who provide support services for an organization.

The fit of performance in organizations can be best understood in relation to organizational elements such as goal setting, job analysis, job description, and job and performance standards. Goal setting translates organizational goals into divisional, departmental, branch, and specific job objectives. Goal setting starts with the organization mission—the overall goals specifying the performing activities and results—to be accomplished by the total organization. Job analysis, on the other hand, focuses on the components tasks of jobs at every level (who does what, and how). Job description is another organizational element which describes how the rates and responsibilities of employees. Job standards refer to the level of quality and quantity of performance expected or
acceptable in a certain job. Performance standards represent the level of results needed to ensure the accomplishments of the organization (Eichel & Bender, 1984). Herman et al. (1975) argued that employees who held similar positions and ranks in the organizational structure reported similar satisfaction with the work and pay, experienced the same level of motivation, and agreed on contingencies for interpersonal behavior; and employees at the same level agreed in their description of their supervision. Herman et al. concluded the following:

If organizational-structure characteristics are more highly related to organizational behavior than are demographic characteristics in a variety of different organizational settings, then the effect must be related to employees' ability and willingness to adapt to their work environments (p. 230).

Merton addressed this problem and analyzed why certain bureaucratic characteristics stifle individual initiative and foster ritualistic overconformity. Merton found unanticipated consequences of bureaucratic features for individual performance.

Blau and Schoenherr (1971) raised the question of how the various conditions in an organization affect individual conduct or human relations. Blau and Schoenherr (1971) argued that the first step in building a systematic theory to explain why organizations exhibit various attributes requires some comparison of different organizations (p. 6). "The comparison may take the form of collecting quantitative data on many organizations and applying multivariate analysis to them" (p. 7), and "The standardization of
the performance of tasks through formalized procedures is commonly considered to be a mark of bureaucratization, and so the centralization of authority in the hands of top management" (p. 9).

The structure of large organizations comprises internal substructures that have a certain degree of autonomy. There are a number of functional divisions and there are often also a number of branches at various distances from the headquarters. These subunits can be analyzed separately to determine whether their internal structures exhibit the same or different regularities. Structural characteristics of organizations have been found to be related to variations in job attitudes and behavior such as job satisfaction, productivity, and turnover (Berger & Cummings, 1979; Blau, 1960; Dalton, 1950; Haire, Chriselli, & Porter, 1963; Kane & Lawler, 1979; Kimberly, 1967; Porter & Lawler, 1965, 1968).

Perrow (1965) identified three major factors which influence organizations: (1) cultural system, (2) the technology, and (3) social structure. He stated the following:

Organizations are influenced by three factors: the cultural system which sets legitimate goals, the technology which determines the means available for reaching these goals, and the social structure of the organization in which specific techniques are embedded in such a way as to permit goal achievement (p. 912).

Organizational differences are likely to affect the ability of managers to accurately interpret and compare performance ratings across organizational settings. Such differences may cause raters to place different emphases on specific performance criteria. The
way meanings are shared and interpreted in an organization is believed to be one of the factors which causes differences in performance ratings. The weighting of criteria by raters is likely to be affected by organization-specific characteristics. Differential weighting implies that different models of performance are being used. This can cause difficulties, both legal and administrative, for the manager seeking to compare overall performance of different individuals across subunits within the same organization or between different branches with different locations and sizes, unless the impact of structural factors on performance rating is taken into consideration.

**Job Performance and Satisfaction**

This section consists of three parts: (1) Performance causes satisfaction, (2) Satisfaction causes performance, and (3) Moderator approach to the relationship between satisfaction and performance.

The relationship between job performance and job satisfaction has been one of the most controversial issues that has evolved from decades of research on employee attitudes (Petty, Mcgee, Gail & Cavender, 1984). Schwab and Cummings (1970) identified three major theoretical approaches utilized by the students of the organizations in the study of the relationship between job performance and job satisfaction: (1) performance causes satisfaction, (2) satisfaction causes performance, and (3) the relationship between performance and
causes performance, and (3) the relationship between performance and satisfaction is moderated by a number of other variables.

**Performance Causes Satisfaction**

This approach is based on the assumption that satisfaction is a function of performance. Lawler and Porter (1967) were the principal proponents of this approach. They argued that evidence indicated that a low but consistent relationship existed between satisfaction and performance. According to Lawler and Porter (1967), performance may lead to rewards and rewards to satisfaction. Moreover, the imperfect relationship between rewards and performance and the moderate influence of perceived equity would be expected to produce a low but positive relationship between performance and satisfaction. Claims that performance causes satisfaction or vice versa are based on correlational studies. This kind of study supports the existence and direction (+ or -) of the relationship between performance and satisfaction, and not on causal relationship.

**Satisfaction Causes Performance**

Human relations approach theorists—which emerged from Hawthorne studies of the 1920s and early 1930s—have their own viewpoint on the relationship between performance and satisfaction (Schwab & Cummings, 1970). Vroom (1964) stated the following:

It was typically assumed by most people associated with the human relations movement that job
satisfaction was positively associated with job performance. In fact human relations might be described as attempts to increase productivity by satisfying the needs of employees (p. 181).

A review of more than 50 studies (Brayfield & Crockett, 1955) showed that satisfaction causes performance. Vroom (1964) reviewed 20 studies relating satisfaction to performance that had been conducted between 1949-1963 and found correlation from -0.31 to 0.86 with a median correlation of 0.14.

Application of the exchange theory by Organ (1977), suggested that a reappraisal of the logic underlying the satisfaction cause performance notion. According to Organ, social exchange theory can be applied to the assumption that satisfaction causes performance. Organ argued that performance or production might be viewed as an appropriate form of reciprocal exchange for satisfaction afforded an employee by his/her job.

**Moderator Approach**

The moderator approach assumes that satisfaction-performance are related under certain conditions. This approach is attributed Lawler and Porter's (1967) work, which emphasized the effects of moderator variables such as rewards contingency and perceived equity of rewards to the relationship between performance and satisfaction. Herman (1973) suggested that performance could be expected to relate to satisfaction only when workers are given control over their production. Other factors that are expected to influence the
relationship between performance and satisfaction are the degree of job fit (Carlson, 1969), pressure for production and task difficulty (Jacobs & Solomon, 1974), and a need for achievement (Steers, 1975). Theorists who take this approach do not assume unidirectional relationship; some posit circular relationship, others assume bidirectional relationship.

The performance satisfaction controversy is not solved yet. Unclear relationships still remain. Weak empirical support for each theoretical approach and causality claims based on correlational studies are important reasons for this ambiguity in the relationship between satisfaction and performance. Steers (1981) indicated that satisfaction causes performance approach, when he stated "the fact that workers are satisfied does not mean they will necessarily produce more, only that they are satisfied" (p. 309).

In criticizing the performance causes satisfaction approach, Steers stated: "There is no compelling argument that performance must necessarily cause satisfaction" (p. 310). Finally, with regard to the moderating approach, Fisher (1980) stated that "this approach, too, has failed to produce unambiguous and reliable findings" (p. 607).

Most of the studies which dealt with performance-satisfaction relationship were correlational studies, with no real manipulation for either satisfaction or performance. More importantly, there were no random assignment for subjects to the varying conditions of either performance or satisfaction. As a consequence, claims and arguments
of causal relationship are groundless and constitute methodological deficiencies. What is needed in this regard is an experimental design to take care of the problems of an unclear relationship between satisfaction and performance. Another approach would use meta-analysis to sum up the previous literature and reach a valid conclusion. Petty et al. (1984) conducted a meta-analysis on empirical studies of individual job performance and individual job satisfaction with studies which reported overall satisfaction or used the Job Description Index scale, and were conducted after Vroom's (1964) review. It appears in some of the major organizational journals (Academy of Management Journal, Academy of Management Review, Journal of Applied Psychology, Organizational Behavior and Human Performance, and Personnel Psychology) from 1964 to 1983. According to the meta-analysis conducted by Vroom (1964), the average correlation between performance and satisfaction was \( r = .14 \), and the variance of correlation \( (r = .0107) \). The results of meta-analysis between overall job satisfaction and performance indicate that average correlation of \( r = .23 \).

Other explanations of the discrepancy between raters' (e.g., nurses, supervisors, and patients) ratings of performance and satisfaction can be explained by the attribution theory. Two major theoretical contributions in the area of causal attribution suggest that performance is most often attributed to four causes: effort and ability (both internal and dispositional causes) and luck and task difficulties (both external or situational causes). Differences in
attributions made by actors and observers suggest that supervisors are likely to attribute the low performance of their subordinates more to internal than to external causes, while subordinates tend to attribute high performance to their effort and ability (Jones & Nisbet, 1972). Jones and Nisbett hypothesize that actors attribute their actions to situational requirements, whereas observers attribute the same action to demographic dispositions. Monson and Snyder (1977) modified this assumption as follows:

Actors should make more situational attributions than should observers about behavior acts that are under situational control; by contrast, actors' perceptions of behavior that are under dispositional control ought to be more dispositional than the perceptions of observers (p. 96).

Three explanations to explain the differences between and among different raters (self and supervisors) have been given by Harris and Schaubroeck (1988) based on their review of the literature:

1. Egocentric bias. The underlying assumption is that ratee ratings, or self-ratings, are biased in some fashion, while other raters (e.g., peers and supervisors) share a set of common perceptions. One of the major effects of egocentrism is that of defensiveness, wherein a self-rater is inclined to inflate his/her rating in order to enhance the evaluation (Steel & Ovalle, 1981). This tends to attenuate the correlation between self- and other ratings. Correlation between others' ratings would be considerably higher, as there would be no range restriction. A second type of egocentric bias is that self-ratings may be affected by other
variables, such as self-esteem. That is, a person with high self-esteem might inflate his/her own ratings, while a person with low self-esteem may not. A third type of egocentric bias is posited by attribution theory, wherein actors (e.g., self) attribute high performance to their own demographic dispositions and low performance to environmental factors. Conversely, observers (e.g., supervisors) attribute high performance to environmental factors and low performance to the actor's dispositions. Therefore, this theory would suggest that self-ratings will correlate poorly with ratings provided by other sources. In addition to predictions about the correlations, all three versions of the egocentric bias explanation would predict differences in mean ratings. Specifically, self-ratings should be significantly higher than either peer or supervisor ratings.

2. Differences in organizational level. Two types of organizational level explanation for rater disagreements exist. Some scholars (Zammuto et al., 1982) have asserted that raters at different levels weigh performance dimensions differently. Raters at different levels (e.g., peers and supervisors) disagree on the overall rating, but they would agree on dimensional ratings. Each rater occupies a different vantage point vis-a-vis the ratee (Keeley, 1974). The second explanation maintains that raters at different levels define and measure performance differently (Borman, 1974; Landy, Farr, Saal, & Freytage, 1976). This suggests that
raters at different levels disagree on both dimensions and overall ratings.

3. Observational opportunities. This suggests that peers have more opportunities to observe the ratee and at more revealing times than do supervisors (Latham & Wexley, 1982). According to this explanation supervisors disagree with a ratee because they have few opportunities to observe the subordinate's performance levels.

The Theoretical Model of the Study

The sociological literature provides many examples of attempts to establish links between social structure and organizations. For example, (Bendix, 1956) explored the relationship between dominant political ideology and how the authority of the managers over subordinates was legitimate in an industrial context. Other scholars investigated the effect of organizational size on administration, and structure (e.g., Anderson & Wakrov, 1961; Bedeian, 1980; Beyer & Trice, 1979; Blau, 1970; Blau & Schoenherr, 1971; Child, 1973; Daft & Becker, 1980; Freeman & Hannan, 1975; Jackson & Morgan, 1978; Gillespie & Mileti, 1976; Goldman, 1973; Marsh & Mannari, 1981; Mileti, Gillespie & Haas, 1977; Miller & Conaty, 1980; Routamaa, 1985).

One of the major developments in the organizational theory is the shift of the focus from organizational structure to the organizational functions. Bennis (1959) summed up this point when he pointed out that classical theorists (e.g., Fayol, Talor, and others)
talked about "organizations without people," while contemporary theorists (e.g., human relation approach) talk about "people without organizations." It is the purpose of this study to look at people in the organizations. To better understand organizational behavior, it is necessary to integrate such behavior with its structure. In this study, the term structure is limited to positions and type of hospital. Hospitals are divided into two types: (1) the government hospital and (2) the private hospital. Hospital levels in this study are divided into three different levels: (1) nurses, (2) supervisors, and (3) patients.

In summary, the underlying theoretical model for this study is shown in Figure 2. This model first shows that the type of hospital affects the rater's satisfaction and the rater's ratings of registered nurses' performance. It shows that the satisfaction-performance relationship is a dual relationship and is also affected by the type of hospital. The satisfaction-performance relationship is influenced by a number of moderate factors labeled in the model as Z (e.g., self-esteem, age, sex, tenure, rewards, perceived equity, and others). This model is a combination of the classical theorists' of organizations emphasis on "structure" and the contemporary theorists' emphasis on "functions, or organizational behavior." It is an attempt to narrow the theoretical gap between these major approaches in organizations, and to treat organizational behavior within its organizational context and environment. As can be seen from Figure 2, the underlying theory of this study is that
the performance ratings and satisfaction can be explained by the differences in hospital structure (type) and the differences between organizational levels (raters).

Figure 2. Theoretical Model Represents the Relationship Between Hospital Structure, Job Performance Ratings and Rater's Satisfaction.
Levels within each type of hospital is another major factor which is expected to influence performance and satisfaction in hospitals. This model is based on the integration between the organizational structural theories and organizational functional theories. It is assumed in this model that even if hospital structure somehow is similar—because of the type of services and the input of the hospitals—it still differs from one type to another.

According to this model differences in performance and satisfaction ratings between raters in all hospitals combined, within government and private hospitals, and within each hospital are expected. These differences are explained by differences in the organizational level occupied by each rater. Differences between hospitals in combined as well as separate ratings of registered nurses, supervisors, and patients are explained by the differences in the type of the hospital.

**Review of Selected Empirical Studies**

This section consists of four parts: (1) organizations' structural differences, (2) job related factors, (3) rater and ratee demographic characteristics, and (4) job performance-satisfaction relationship.

Research on performance appraisal has increased the accuracy and reduced the bias in performance ratings (Zammuto et al., 1982). Other researchers (Guion, 1965) reported that 81 percent of the published studies in the *Journal of Applied Psychology* and *Personnel*
Psychology between 1950-1955 used ratings as criteria. A review of literature since Guion's reports shows that performance ratings still play a major part in validation. Blum and Naylor (1968) sampled articles from the Journal of Applied Psychology for the period 1960 to 1965 and found that of those using criterion measurement, 46 percent measured performance via judgmental indices. Similar findings reported by Landy and Farr (1976) also reported that 89 percent of 196 police departments in major metropolitan areas used supervisory ratings as the primary form of performance measurement.

Structural Differences

Organizational Differences

Organizations as a source of variations in performance has received much less attention than other sources of variations (e.g., rater and ratee variations). Blau (1970) identified two basic types of structural parameters: nominal and graduated. A nominal parameter divides the population into subgroups with distinguished boundaries. There is no inherent rank order (e.g., sex, race, religion, occupation, place of work, national origin, marital status, language). A graduated parameter differentiates people in terms of status, not boundaries (e.g., education, income, age, administrative authority). Zammuto et al. (1982) argued:

Since most studies are conducted within only one organization, variance due to the organization is tacitly assumed to be constant. If organizational differences do exist, the generalizability of research findings from different settings may be limited. Similarly, such
differences can affect the usefulness of any particular performance appraisal instrument in different settings (p. 646).

Kane and Lawler (1979) reported that social characteristics of an organization may significantly impact performance appraisal. Porter and Lawler (1965) conducted a study on the relationship between organization structure and job attitudes and job behavior in business and industrial organizations. The structural properties were examined: organizational levels, line/staff hierarchies, span of control, suburb size, total organization size, tall/flat shape, and centralized/decentralized shape. Findings showed that five of these seven variables (with the exception of span of control and centralized/decentralized shape) were significantly related to one or more attitude or behavior variables in organizations.

Porter and Lawler (1965) reviewed the literature on organizational structure and employee behavior, and concluded that organizational structure and levels are strongly related to both attitudes and behavior of employees. Zammuto et al. (1982) stated the following:

Organizational differences are likely to affect the ability of managers to accurately interpret and compare performance ratings across organizational settings. Such efforts are likely to be complicated because contextual differences cause raters to place different emphases on specific performance criteria (p. 644).

Type of structure tends to influence the organizational productivity. Meltzer and Salters (1962) studied job performance and organizational structure and found in large organizations a
significant trend in the direction of greater productivity in tall rather than in flat organizations. Also, within the same organization objective indices of employees' positions in the organizational structure and their demographic background accounted for a significant and substantial portion of the variance in response to the work environment (Herman & Hulin, 1972). Characteristics of organizational structure consistently accounted for a larger percentage of the variance than did demographic characteristics.

The effect of technology; an organization's dependence on a section or unit to attain its mission; labor union strength in the workplace; and managerial pressure for close, strict supervision on four dimensions of leader behavior and leader authority to direct work was examined by Hammer and Turk (1987). In this study regression analysis showed that technology, union strength, and management pressure contributed significantly to responsive leader behavior. The discussion in the next section focuses on the organizational levels.

Organizational Levels

The study of the horizontal as well as the vertical dimensions of the division of labor is important in understanding the divisions of labor in organizations. The importance of the vertical dimension of the structure was the concern of Pfiffner and Sherwood (1960) when they stated:

The psychological adjustment necessary when one goes from one level to another is often difficult because of the
tendency to continue former behavior patterns. ...Good job descriptions should reflect task differentiation at the various echelons. It is a matter of tasks combined with behavior (p. 139).

**Supervisory Personnel**

Organizational structure affects employees' satisfaction. A study by Browne and Neitzel (1952) on the satisfaction of 61 supervisory personnel compared with 600 workers in a single company showed that supervisors are generally more satisfied with their jobs and with the company as a place to work. Top managers and middle managers in the plant were significantly more satisfied than the first-level supervisors (Rosen, 1961). Porter and Lawler (1965) demonstrated the following, based on a review of the literature: (a) five of the seven elements of the organizational structure (span of control and centralization/decentralization being the two possible exceptions) were found to have some kind of significant relationship to either job attitudes or job performance, or both, (b) certain organizational structural variables (organizational level and organizational subunit size) seem to have a stronger relationship to employee satisfaction and job performance, (c) the direction of the three relationships of certain structural variables to other organizational factors seems clear: (a) a positive relationship between organizational levels and job satisfaction; (b) a positive relationship between line/staff type of position and degree of need satisfaction; and (c) a negative relationship between subunit size...
and job satisfaction, positive relationship between size and absenteeism rate, and positive relationship between size and turnover rate.

**Supervisors and Subordinates**

Mean differences between raters were studied by Holzbach (1978), who studied supervisors, self-, and peer performance ratings of 107 managerial and 76 professional employees in a medium-sized manufacturing location. Holzbach reported that the mean of self-ratings was greater than the mean of supervisors and greater than the mean of peer ratings. The mean of the peer ratings was greater than the mean of supervisors ratings. The effect of age, gender of supervisors, and subordinates gender on self-, and supervisory ratings in an organizational setting were studied by Shore and Thornton III (1986). Participants consisted of 35 men and 35 women and their supervisors, 16 men and 19 women. Findings showed that subordinates' self-ratings were higher than their supervisors' ratings of them and that gender did not affect the relationship between self- and supervisory settings. A meta-analysis was conducted by Harris and Schaubroeck (1988) on the findings based on reviews of self-supervisor, self-peer, and peer-supervisor ratings studies. The results indicated a high relationship between peer and supervisor ratings ($r = .62$) but only a moderate correlation between self-supervisors ($r = .35$) and self-peer ratings ($r = .36$).
Borman (1974) reported less supervisor-peer rating agreement than was found within either type of rater group. Klimoski and London (1974) examined self-, supervisory, and peer ratings of performance. They reported that each rater type was distinct with regard to use of information, and supervisory and rating strategies were more similar than self-ratings. Supervisor ratings showed a strong correlation between effort and performance ratings, whereas peer ratings and self-ratings differentiated between effort and performance. Borman (1974) suggested that different raters have different perspectives on performance, and Blood (1974) noted that these differences may provide valuable information for the diagnosis of organizational problems. Shore and Thornton III (1986) reported that subordinates' self-ratings were higher than the supervisors' ratings of them and that gender didn't affect the relationship between self and supervisory ratings. Other researchers found different findings with regard to the type of rater. Waldman (1979) found that self-ratings were lower than supervisory ratings when a group of secretaries rated themselves.

No one type of rating appears to be more valid than any other type. The differences among types may be useful for organizational problem diagnosis. The effect of actual performance level of the ratee on ratings of that performance was examined by Bigoness (1976) who found that actual performance had the greatest effect on performance ratings. Other studies (Hamner, Kim, Baird, & Bigoness, 1974) found that actual performance accounted for the largest
percentage of variance in performance ratings (30%), and the sex and race of the ratees and raters accounted for an additional 23 percent of the rating variance. Next, discussion will be focused on one of the most attractive structural aspects to students of organizations, namely, organizational size.

Organizational Size

Organizational size is measured in many different ways. For example, among the relationships postulated in Blau's formal theory of organizations, the effect of the size on administration has received the most attention. Blau hypothesized:

...a positive relationship between organizational size and the absolute size of the administrative components, and a negative relationship between organizational size and the relative size of the administrative component (Blau, 1970, p. 208).

Most researchers defined size as the number of employees in the organization. Mileti et al. (1977) found a positive curvilinear relationship between size and vertical and horizontal differentiation and a linear relationship between size and spatial differences. A strong relationship between organizational size and three forms of differentiations—spatial, horizontal, and vertical was found (Goldman, 1973). Also, size was found to be related to differentiation by Miller and Conaty (1980) and found to have greater effects on division of labor, vertical differentiation, and horizontal differentiation by Beyer and Trice (1974) than by Blau and Schoenherr (1971). In a 6-year study conducted by Hendershot and
James (1972), a negative association was found between the organizational size (enrollment) and administrative intensity. A review conducted by Bedeian (1980) that consisted of 26 cross-sectional studies with data on organizational size and administrative ratios reported that 18 studies observed a negative relationship between organizational size and relative size of administration. Another review by Gillespie and Mileti (1976) found that, after controlling size variables, there are three positive associations between the ratio of administrators to organizational size and both vertical and horizontal differentiation. Freeman and Hannan (1975) examined the organizational size and the size of the administration for both growing and declining school districts. The relationship in growing districts between district size and supportive components was positive, proportional, and supports Blau's theory. Marsh and Mannari (1981) found in their study of 50 Japanese factories that structural differentiation and formalization are more a function of size than technology. Routamaa (1985) found if size alone were to be considered, it explained 39 percent of the variance; and specialization accounted for 44 percent of the variance on the formalization. And, finally, Daft and Becker (1980) found that organizational size had a positive relationship on the absolute size of the administrative component.
Characteristics of the Job Position

Much of the literature on the effects of position on performance ratings has been concerned with the gender-role stereotype hypothesis. In general, data suggest that ratings are influenced by the interaction of the gender of the ratee and the gender role stereotype of the job or task. According to Rosen and Jerdee (1973), observer ratings of the effectiveness of supervisors' leadership styles were affected by the gender of the supervisor and the gender of the subordinates. Performance ratings were positively correlated with skill level within a job classification (Klores, 1966). Shore and Thornton III (1986) concluded, based on the review of the literature, that both supervisors and subordinates' gender may affect levels of agreement between self- and supervisory ratings because (1) men tend to rate their performance more favorably than women rate theirs, and (2) women tend to rate others more favorably than men rate others. The first factor indicates potential gender differences in self-ratings and subordinate ratings, while the second factor indicates potential gender differences in supervisory ratings. Discrepancy in performance ratings may be attributed to the rater's position. Raters in different positions may stress different aspects of performance. Different types of raters (e.g., self, peers, and supervisors) are likely to have different perspectives on and information about ratee's performance. Cross-ratings correlations are usually low to moderate in magnitude. Comparison of different
types of raters suggests, in general, low to moderate correlations among raters of different types (Bartlett, 1959; Booker & Miller, 1966; Borman, 1974; Centra, 1975; Fiske & Cox, 1960; Gordon & Medlunk, 1965; Heneman, 1974; Kirchner, 1965; Klieger & Mosel, 1953; Klimoski & London, 1974; Kraut, 1975; Landy, 1985; Landy, Barnes & Murphy, 1978; Lawler, 1967; and Zedeck, Imparato, Krausz, & Oleno, 1974).

Job Related Factors

Job Experience

The results of studies of job experience are mixed. More experienced raters found to have more reliable ratings (Jurgensen, 1950; Mandell, 1956) reported that raters with more than 4 years of experience as supervisors tended to be more lenient in their ratings than raters with less experience. Kiores (1966) reported no significant effect of experience. A significant effect of rater experience that accounted for only a small percentage of total rating variance was found by Cascio and Valenzi (1977).

Job experience seems to affect positively the quality of ratings, but it is not clear exactly why experience functions in this way (Cascio & Valenzi, 1977; Jurgensen, 1950; Kiores, 1966; Mandell, 1956). Some researchers argue that better performers seem to provide performance ratings of higher quality (Bayloff, Haggerty, & Rundquist, 1954; Kirchner & Reisberg, 1962; Mandell, 1956; Mullins &
Force, 1962; Schneider & Bayroff, 1953). More knowledgeable raters gave more valid ratings (Amir, Kovarsky & Sharan, 1970). Others reported that individuals who have the experience of working under a female manager had more positive perceptions of female managerial competence in terms of motivations (Ezell, Odewahn & Sherman, 1981).

Type of Rater

Several studies have investigated the role of raters in performance appraisal (e.g., Borman, 1974; Kane & Lawler, 1978; Holzbach, 1978; Klimoski & London, 1974; Zammuto et al., 1982). The rater's role in relation to that of the ratee seems to influence what dimensions are used in evaluating performance and the degree of leniency in performance rating (Zammuto et al., 1982). Borman (1974) reported that supervisors employ dimensions of performance in rating subordinates that were different from those subordinates used to rate themselves. Self-ratings have been found to be more lenient than those given by peers and supervisors. Differences between self-rating, peers, and supervisors are reported by many scholars (Klimoski & London, 1974; Lawler, 1967). Differences among supervisors' ratings, self-ratings and outsider ratings may be attributed to the different vantage points that rater occupies vis-a-vis the ratee. Collecting performance ratings from different raters may increase the amount of true performance variations that are measured. Also, rater differences maybe attributed to the
variant use of performance rating scales.

Rater Familiarity of Ratee's Job

The assumption that greater familiarity leads to less halo effect and to greater accuracy was concluded by Borman (1975); Kolur (1962); and Jacobs and Kozlowski (1985). A minimal rater knowledge and familiarity with the ratee and job is required before valid ratings can be obtained. Studies showed that only low to moderate agreement among the ratings were made by supervisors at differing organizational levels relative to the ratee (Berry, Nelson, & McNally, 1966; Borman & Dunnett, 1975; Campbell, Dunnette, Arvey, & Hellervik, 1973). Better construct validity for ratings was found by first-level supervisors than for those of second-level supervisors (Zedeck & Baker, 1972) The amount and type of contact between rater and ratee has been of concern to researchers. Reliability of ratings increased as the amount of rater-reported acquaintance with the ratee increased (Ferguson, 1949). No effect was found of the length of rater acquaintance with ratee (Fiske & Cox, 1960; Gordon & Mediund, 1965; Klores, 1966). No differences were found in peer-rating reliability or validity for ratees who had been acquainted for 3, 6, or 12 weeks (Hollander, 1965). Several studies reported little effect or no effect on the validity or reliability of ratings when the rater's friendship with the ratee was considered (Waters & Waters, 1970; Amir et al., 1970; Suci, Vallance, & Glickman, 1965). The relevance of rater-ratee acquaintance was important in terms of
the validity of the ratings (Freeberg, 1969). Raters who interacted with the ratees in a situation relevant to the dimension being rated were more valid in their evaluations than raters who interacted with the ratees in nonrelevant situations. Landy and Guion (1970) reported that raters with daily but peripheral contact with ratees had a median inter-rater reliability of 0.24 in contrast to a median reliability of 0.62 for those raters with more relevant contacts with the ratees. Relevancy, rather than frequency, of contacts appears to be the critical factor.

Role of the Nurse

Basic disagreement about ideal and real expectations, particularly between the new graduate and the nursing service group, exists. Most new graduates thought that, ideally, they should be highly competent with few educational needs upon graduation (Benner & Benner, 1979). The following section contains a detailed discussion of the role of nurses in hospitals.

Corwin (cited in Fochtman, 1987) determined that there are three types of role conceptions for nurses:

(1) Bureaucratic role conception requires that the primary loyalty of the nurse be to the hospital and hospital administration, to the work routines, and to the personnel supervision.

(2) Professional role conception requires that the primary loyalty of the nurse be to the profession. Emphasis is placed on nursing education programs being offered by institutions within the system of higher education rather than hospital schools of nursing. Values such as active participation and membership in the professional association and commitment
to formal knowledge and to continued learning as the basis of the profession are stressed.

(3) Service role conception requires that the primary loyalty of nurse be to the patient as the recipient of humanitarian services. Nursing is conceived as a calling which suggests devotion to the patient as a person. Nurses engage in administering direct nursing care to patients from which they receive demographical satisfaction (p. 23).

A model developed by Primm (1986) identifies the role components of the nurse. Primm's model includes three major and three minor components of nursing practices. The major components of the practice role of the nurse are provider of care (technical skills), communicator (interpersonal skills), and manager of care (leadership skills). The three minor components of the practice role of the nurse are teaching, coordination of care, and delegation of care. The effects of a bureaucracy on the role conception and role deprivation of graduate nurses was studied by Kramer (1971). She administered the Corwin Role Conception Scale at graduation from the baccalaureate program, 3 months after graduation, and 6 months after beginning employment. She found that:

(a) There was significant increase in loyalty to bureaucratic values following employment and significant decrease in professional values. Those nurses in the sample who did not make this alteration left hospital work or nursing in significantly greater numbers than those who did.

(b) There was a significant increase in the magnitude of role deprivation of the group as a whole three months after graduation. The magnitude of role deprivation receded to graduation level six months after employment, but the composition of the group had changed by this time to exclude those who were most role deprived in previous testing.
Subjects who left nursing practice, changed jobs because of dissatisfaction, or returned to school had significantly higher role deprivation scores than subjects who remained in the same job for the six-months period of the study (p. 429).

The American Association of Colleges of Nursing (AACN), in its report *Essentials of College and University Education for Professional Nursing*, (1986) identified three major roles of the nurse: provider of care, coordinator of care, and member of profession.

Technical skills were stressed and considered the mainstay of nursing performance, because nursing education was hospital sponsored and controlled. Educational practice in nursing programs changed in response to societal and health care trends, particularly in baccalaureate settings where the focus of student achievement shifted from a clear-cut emphasis on technical skills to abroad application of intellectual skills (Sweeney, Regan, O'Malley, & Hedstom, 1980).

Rater and Ratee Demographic Characteristics

This section consists of three parts: (1) a review of the literature on rater demographic variables, (2) a review of the literature on ratee demographic variables, and (3) a review of the literature on the interaction between rater-ratee characteristics.

Rater Characteristics

A number of recent studies examined the nonperformance factors, race, and gender of ratee and rater. Rater gender and race have been
a major issue regarding discrimination in hiring. Results of higher-order multivariate analysis of variance, reported by Wendelken and Inn (1981) showed significant effects of ratee race, past performance, rater race, and the interaction between ratee and rater. Wendelken and Inn concluded that this makes generalizability from past laboratory studies to performance evaluation in real organizational environments questionable. Dunnett and Borman (1979) stated:

Studies of possible rater bias due to ratee characteristics such as sex, race, age, etc., are difficult to carry out because rating differences maybe due to real performance differences, rating biases. ... Either performance across Sub groups must be standardized, or raters of different sex, race or age are required to observe and rate the same performer (pp. 489-490).

Race of Rater

Raters often give higher ratings to the same race ratees than to cross-race ratees. Most of the studies examining the effect of the race of the ratee have used ratings of the real world performance of ratee as the behavior of interest, and ratees were found to receive higher ratings from same race raters. Hamner et al. (1974) found interactions of race and objective performance levels. Results indicate that people rate members of their own group with more confidence than they do members of other race groups and that this confidence is reflected in the variance of performance ratings and the degree to which ratings correlate with actual performance. Black
individuals rate other blacks more highly than do whites, and white females received lower ratings from all groups (Schmitt & Lappin, 1980).

Studies examining rater's race effects have yielded inconsistent findings. Some studies showed bias against blacks (Hamner et al., 1974). Bigoness (1976) and other studies showed no differences in the ratings as a function of race. A mean correlation of 0.32 was found between race of the ratee and appraisal in an analysis of laboratory studies containing a total number of 992 studies (Krainger & Ford, 1983). Raters often give higher ratings to same-race ratees than to cross-race ratees, although this effect may be affected by the degree of interaction among members of different races (Crooks, 1972; DeJung & Kaplan, 1962; Hamner et al., 1974; Schmitt & Johnson, 1973; Schmitt & Lappin, 1980; Wendelken & Inn, 1981).

The effect of race may be affected by the degree of interaction among members of the different races. Raters often give more favorable ratings to same-race ratees, but situational factors may moderate this effect. Based on meta-analysis of 49 published and unpublished field studies with a cumulated number of 13,706 studies, Krainger and Ford (1983) found a correlation between the race of the employee and performance ratings of 0.192.
Age of Rater

The number of discrimination lawsuits filed under the Age Discrimination in Employment Act (ADEA) of 1967 has risen in recent years. For example, an estimate of 17,000 cases were pending at the federal level at the end of 1987 (EEOC, 1987). A theoretical support for the negative relationship between age and performance is supported by decremental theory of aging (Gininger, Dispenzieri, & Eisenberg, 1983). The major assumption of this theory is that abilities such as speed of responses, hearing, vision, and so forth, decline with age. Eight of the nine abilities measured by the General Aptitude Test Battery have been shown to be correlated negatively with age (Droege, Crambert, & Henkin, 1963). The relationship between age and performance is inconsistent. The ratee's age was found to have no relationship to performance ratings by Klores (1966), and no ratee age effect was reported by Bass and Turner (1973). Rater age does not appear to have a substantial main effect on performance ratings. There are no statistically significant main effects or interaction effects involving the age and job experience of target subjects. Older participants gave older subjects lower evaluations than the younger subjects. Younger participants gave the older subjects higher evaluations than the younger subjects (Schwab & Henman, 1978). Supervisors rated older subordinates lower than younger subordinates doing the same job. Differences between self-ratings of performance and supervisory...
ratings seemed to be a function of the subordinate's age (Ferris, Yates, Gilmore, & Rowland, 1985).

A meta-analysis based on a review of 22 years of articles published in 46 behavioral science journals (McEvoy & Cascio, 1989), used a total of 96 independent studies that reported age-performance correlation. Meta-analysis procedures revealed that age and job performance generally were unrelated ($r = 0.06$). However, for young employees the relation between age and job performance was consistent and modestly positive ($r = 0.17$). Also, findings based on meta-analysis reported by Waldman and Avolio (1986) revealed that age and performance were found to be uncorrelated. Other scholars like Hunter and Hunter (1984) also found no relationship between age and performance. Cleveland and Landy (1981) found that older employees received lower ratings than younger employees on appraisals of self-development and interpersonal skills. Laboratory studies on age have yielded more consistent findings than either the research on sex or race biases (Dipboye, 1985). These studies have found that older employees are typically rated less favorably than younger employees (Rosen, Jerdee & Lunn, 1981). Schwab and Heneman, (1978) found that bias against older ratees is more likely to occur among older than among younger raters. Rater's age does not appear to have a major main effect on performance ratings (Barnes, 1980; Cleveland & Landy, 1981; Klores, 1966; Mandell, 1956; Schwab & Heneman, 1978).
Gender of the Rater

A review by Dipboye and Flanagan (1979) for all empirical articles from 1966, 1970, and 1974 volumes of Journal of Applied Psychology, Organizational Behavior and Human Performance, and Personnel Psychology, found that field research in industrial organizational psychology has predominantly had men as subjects. Maccoby and Jacklin (1974) concluded that women were found to manifest lower performance expectations.

In most studies, rater gender had little or no effect on performance ratings, although there are some data suggesting that female raters may be more lenient than males. Bias against women in performance appraisal has been suggested as an explanation for their paucity in management. A study by Lee and Alvares (1977) obtained no effect of ratee sex on performance evaluation. Findings are not consistent on the effects of ratee sex (Nieva & Gutk, 1980). Some studies, such as Izraeli and Izraeli (1985); Stitt, Price, & Kipnis (1983); and Jago and Vroom (1982) reported no effects of gender on performance ratings.

The published field research on sex bias has shown that female employees are rated the same (Cascio & Phillips, 1979; Dreher, 1981; Pulakos & Wexley, 1983; Wexley & Pulakos, 1982) or higher (Mobley, 1982) as male employees. Some findings suggested that female raters may be more lenient than males. Most of the studies are laboratory or simulation experiments (Centra & Linn, 1973; Dipboye, Arvey, &
There is a need for more data from actual work settings.

It was suggested that characteristics of supervisors and subordinates should be scrutinized in order to narrow the gap between self and supervisory ratings (Brief, Aldeg, & VanSell, 1977). Bias against female ratees has been found in ratings of the quality of their essays (Isaacs, 1981; Toder, 1980); how well they relate to customers and other employees (Cohen & Leavengood, 1978); the skill with which they shelve library books (Schmitt & Lappin, 1980); their contributions to the group discussion (Taylor & Falcone, 1982); in casual attribution of their performance (Garland & Price, 1977); and against women who act "out of role" by being directive (Wiley & Eskilson, 1982).


In sum, research on rater and ratee characteristics examines only a limited number of characteristics. Sex of the rater does not generally affect ratings. The literature shows a general trend for women to give higher ratings than men. On the basis of these
findings, it is expected that the gender of the rater may influence comparisons of self- and supervisors' ratings (Walden & Thornton, 1979).

**Rater Educational Level**

Rater's age and education have been studied too infrequently to make general statements about their effects. The educational level of the rater was examined by Cascio and Valenzi (1977). They found that rater education had a significant effect on supervisory ratings of police officers, but the effect accounted for only a small percentage of the total rating variance. While a statistically significant effect of education was found, Cascio and Valenzi concluded that it was so small it had little or no practical significance.

**Ratee Characteristics**

Research on the effects of ratee characteristics on performance ratings reveals inconsistent findings. For example, it appears that gender stereotype of an occupation interacts with the gender of the ratee. Males receive more favorable evaluations than females in traditionally masculine occupations, but no differences or small differences in favor of females occur in traditionally feminine occupations. Ratees tend to receive higher ratings from raters of the same race. Ratee age is not consistently related to overall
performance ratings (Landy & Farr, 1983).

**Race of Ratee**

The effect of ratee race has been examined in several studies. Ratees have been found to receive higher ratings from same-race raters (Crooks, 1972; DeJung & Kaplan, 1962; Hamner et al., 1974). Schmitt and Lappin (1980) found that black ratees received higher ratings from black raters than from white raters, but that the ratings of white ratees were similar for both white raters and black raters. Bigoness (1976), and Hamner et al., (1974) both found interactions of race and objective performance levels. Black female assessments received lower ratings than white female assessments. The black women also received lower criterion ratings than the white women (Huck & Bray, 1976).

White employees received higher performance ratings than blacks in 13 of 22 comparisons. The other 9 comparisons revealed no differences in the rating means for the two groups. White employees were rated higher than blacks on all three supervisory ratings used in the study (Farr, O'Leary, & Bartlett, 1971). Other researchers (Toole, Gavin, Murdy, & Sells, 1972) reported no racial differences on a rating measure for older workers, but white workers received higher ratings than blacks in the younger groups. Black ratees received more valid ratings from black and white raters (Crooks, 1972). Validity of the ratings were measured by their relationship to scores on a job knowledge test. Mean differences were found to be
nonsignificant between black and white raters when age and job tenure were held constant for full-time employees. Small, but statistically significant, racial differences were found for part-time workers (Bass & Turner, 1973). Race was found to have a statistically significant effect of ratee race for police oral board ratings (Wendelken & Inn, 1981).

**Age of Ratee**

Barnes (1980) found that ratee age was positively related to supervisory ratings on several performance dimensions. Cleveland and Landy (1981) found no effects of ratee age on overall supervisory ratings but did find significant effects of ratee age on two of six more specific performance ratings. Barnes (1980) and Schwab and Heneman (1978) found no main effect of ratee age on ratings. Klores (1966) found that ratee age had no relationship with performance ratings. Bass and Turner (1973) found a significant positive relationship between age and supervisory ratings for white full-time employees.

**Gender of Ratee**

Literature on ratee gender suggests that the gender stereotype of the occupation interacts with ratee gender in that males receive more positive ratings in "male" occupations and females in "female" occupations. Studies in which the job would be likely to be
perceived as masculine have found that females received less favorable evaluations than males.

The research on ratee sex has yielded findings as mixed as the race research findings in instructional settings (Centra & Linn, 1973; Elmore & Lapointe, 1975); simulated worksettings (Dipboye et al., 1977; Mai-Dalton, Feldman-Summers, & Mitchell, 1979; Rose, 1978; Rosen & Jerdee, 1973; Schmitt & Lappin, 1980); laboratory research settings (Jacobsen & Effertz, 1974; Mischel, 1974), and actual work settings (Gupta et al., 1980).

Other researchers reported that raters gave similar ratings to male and female managers (Schmitt & Hill, 1977; Schneider & Beusse, 1980). White females received lower ratings from raters of all genders and race groups in a simulation study involving college students observation of video tapes of individuals shelving books in a library (Schmitt & Lappin, 1980). However, Bigoness (1976) and Hamner et al. (1974) both found that females received higher ratings than males. Other studies (Jacobsen & Effertz, 1974) reported that male leaders were evaluated more negatively than female leaders, but that male followers received higher ratings than female followers. Most studies examining the effects of ratee gender on evaluation were simulations. Relatively few studies were field studies (Gupta et al., 1980; Pulakos & Wexley, 1983).
Ratee Educational Level

Education of rater as a variable was found to have little or no effect on performance ratings. Cascio and Valenzi (1977) found no effect of ratee education on supervisory ratings of police officers. Experience and familiarity with the performance of the ratee are more important than the education of the rater, because the important part in the rating process is to know how to judge the performance, taking into account different performance dimensions.

Rater-Ratee Interaction

Two major factors were found to be important in the study of rater-ratee interaction: (1) frequency of contact and (2) relevancy of the contact. Frequency of contact does not appear to be as important as relevancy of contact with regard to the performance being evaluated (Amir et al., 1970; Ferguson, 1949; Fiske & Cox, 1960; Freeberg, 1969; Gordon & Medland, 1965; Klores, 1966; Landy & Guion, 1970; Suci et al., 1965; Waters & Waters, 1970). The quality of interaction between rater and ratee is more important than simply the amount of interaction. A study by Rothaus, Morton, and Hanson (1965) showed that increased psychological distance of the rater tended to result in ratings that were more critical and negative. Relevancy rather than frequency is a critical factor. Landy and Guion (1970) reported that raters with daily but peripheral contact with ratees had a median inter-rater reliability of 0.24 in contrast.
to a median reliability of .62 for those raters with more relevant contacts with the ratees.

Direct information about subordinates' job behavior is often fragmentary, and direct demographical contact may be minimal and restricted to a particular situation. A number of studies have been reported in which the interaction of the sex of the rater and the sex of the ratee was studied. These studies found no effect of rater sex and ratee sex on ratings (Hammer et al., 1974; Lee & Alvarex, 1977).

Regression analysis suggested that supervisors supported highly rated individuals and stressed improvement efforts for low performers (Dorfman, Stephan & Loveland, 1986). Studies by Goodstadt and Kapnis (1970) showed that leaders used punitive behavior when they believed a subordinate performed poorly due to a "bad attitude," and tried to share their expertise when they believed the low performance was due to ineptness. Harris and Schaubroeck (1988) conducted a meta-analysis study of self-supervisor, self-peer, and peer-supervisor ratings. Their findings indicate a relatively high correlation between peer and supervisor ratings (r = .62); but self-peer ratings had a correlation of (r = .35), and self-supervisor ratings had (r = .36).

In their review, Landy and Farr (1980) concluded that the literature in the area of performance ratings is fragmented. Some of the research is on different rating formats, whereas others examine characteristics of raters and ratees. They argued that the rating instrument and the characteristics of raters and ratees are only
parts of the larger system. Based on their review of literature on performance, they proposed a model of performance rating which was composed of five aspects: (1) the roles (rater and ratee), (2) the vehicle (the rating instrument), (3) the rating context (the type of organization, the purpose of rating, etc.), (4) the rating process (administrative constraints, individual rater strategies, etc.), and (5) the results of rating (raw and transformed performance information, actions based on that information, and so on).

Similarity

A study by Pulakos and Wexley (1983) showed that perceptual similarity accounted for a sizable percentage of performance appraisals. Frank and Hackman (1975) examined the effects of interviewer-interviewee similarity on three college admission officers liking for and bias toward applicants. The magnitude of actual similarity between rater-ratee was relatively weak as a predictor of satisfaction and performance appraisals compared to perceptual similarity (Wexley, Alexander, Greenawalt, & Couch, 1980). Wexley et al. (1980) suggested that in the workplace, the actual similarity may not be as important to the process of manager-subordinate interpersonal relations as is the perceived similarity of the other person. Baskett (1973) found that dissimilar applicants in a simulated employment interview were perceived as being less competent and were offered lower salaries. Wexley and
Nemeroff (1977) found that biographical similarity accounted for 12 percent of the interviewers' total decision variance.

Interaction of Rater-Ratee Characteristics

Rater and Ratee Gender

Most of the studies investigating the interaction between the gender of rater and ratee found no interaction effect of rater gender and ratee gender on ratings (Bartol & Butterfield, 1976; Elmore & LaPointe, 1975; Hamner et al., 1974; Mai-Dalton et al., 1979; Rose & Jerdee, 1973; Schmitt & Lappin, 1980). Most of these, however, are laboratory studies. Other studies reported the effects of a rater gender and ratee gender interaction on performance ratings in which both rater and ratee were actual employees of an organization. Gupta et al. (1980) found that supervisors gave higher ratings to cross-gender subordinates, although male subordinates who had male supervisors received more promotions than other employees who had female supervisors. Wexley and Pulakos (1982) found that female raters gave more variable evaluations to male ratees than to female ratees, whereas male raters gave equally varying ratings to male and female ratees.

Rater and Ratee Race

The results of the studies investigating the interaction of rater and ratee race are mixed. For example, some studies reported
no interaction effect of race on peer ratings (Schmidt & Johnson, 1973). Crooks (1972), DeJung and Kaplan (1962), and Hamner et al. (1974) found that raters tended to give ratees of the same race higher ratings than ratees of a different race. Schmitt and Lappin (1980) found that black raters tended to give higher ratings to black ratees than to white. Raters were found to be more confident of ratings given to members of their own racial group and to give more varying ratings to members of their own group (Schmitt & Lappin, 1980).

Rater and Ratee Age

Schwab and Heneman (1978) found that in three of the six rating dimensions, older raters tended to give lower evaluations to older incumbents than to young incumbents, whereas younger raters had the opposite pattern of ratings. Cleveland and Landy (1981) found no interaction of rater and ratee age for overall performance ratings, but did find an interaction effect for some more specific ratings. On interpersonal skills, younger raters gave younger ratees more favorable evaluation than older ratees; but older ratees gave more comparable ratings to all ratee age groups. Older raters gave younger ratees more positive ratings on self-development, but younger raters gave comparable ratings on this dimension to all ratee age groups (Cleveland & Landy, 1981).
Rating Process

The performance appraisal process involves the interaction of a rater and a ratee in a work setting. This interaction is followed by a judgment process in which the rater uses whatever information he/she has about the ratee to evaluate performance. What has been ignored by researchers is the place in which the interaction has taken place, "the organizational structure." Too much emphasis was placed on the characteristics of rater and ratee and their effects on the process of performance appraisal, especially in social psychological research. Students of organizations have rarely focused on the structural constraints over interaction. The social psychological laboratory research has focused on the process of perceiving others without being concerned with performance itself. By doing so they are downgrading two critical features of performance appraisal: (1) Future interaction behavior of the rater and ratee (Campbell & Lee, 1988). Zedeck and Cascio (1982) found that the purpose of the rating (development, merit raise, or retention) affected the way raters weight, combine, and integrate performance. (2) Rater/ratee interdependence and ratee behavior versus the consequences of these behaviors. All these factors tended to be ignored in research (Campbell & Lee, 1988).

Some researchers (Ilegen & Favero, 1985) argued that because most appraisals are done by the ratee's supervisors, (1) the appraisals have a clear power component done to hierarchical nature
of organizations, and (2) the results of the appraisals often have
direct consequences for the ratee (e.g., promotion) that affect a
rater's judgment and may have implications for the rater's own
performance evaluation. Rater training has been shown to be
effective in reducing rating errors. Many studies (Borman &
Dunnette, 1975; Moore & Lee, 1974; Schneider, 1977) examined the
effect of rater training on rating errors and validity. Most
researchers found that training of raters reduces rating errors.

Job Performance and Job Satisfaction

This section consists of three parts: (1) Job satisfaction-job
performance relationship, (2) treatment variables, and (3) patient
variables. The relationship between performance and satisfaction in
the organizations has been studied by many researchers. For example,
Lawler and Porter (1967) concluded, based on a study of five
organizations, that instead of trying to maximize satisfaction in
organizations, organizations should pay attention to the requirement
that high performance be rewarded by satisfying such higher order
needs as "self-actualization" and autonomy. The accuracy of
performance evaluation in organizations varies inversely with the
rank being evaluated. The higher one moves in an organization, the
more problematic and ambiguous performance appraisal becomes.
According to Hage (1982), the single most important concern of
practitioners is performance. The connections between organizational
structure and performance are either not made or are discussed only
tangentially, and organization researchers must focus their efforts on organization performance and its determinants (Cheng & McKinley, 1983).

Petty et al. (1984) conducted a meta-analysis on empirical studies of job performance and job satisfaction for studies which used the Job Description Index (Smith, Kendall & Hulun, 1969) and were conducted after Vroom's (1964) review. Petty et al. (1984) reported that the average correlation between job satisfaction and job performance for all studies included was .14. As can be seen from Table 1, the highest correlation was found between job performance and job satisfaction with work (r = .27) and supervision (r = .27).

In the last few years there has been a rapid expansion in the assessment of consumer satisfaction in mental health facilities. Consumer satisfaction is an appropriate measure along with other evaluation methods. Investigators have defined consumer satisfaction differently. Sometimes the usage has been restricted to the literal satisfaction of clients. In other instances, assessments of outcome and other aspects of the treatment (e.g., waiting time) have been included and assumed to be indices of satisfaction. A classical approach to patient care evaluation was developed by Donabedian (1966). He included structure, process, and outcomes. According to Abdellah, Beland, Marrtin, & Matheney (1973), "Criterion to measures of patient care and precise instrumentation to measure the effect of
nursing practice on patient care are the major gaps in nursing research" (p.26).

Table 1

<table>
<thead>
<tr>
<th>Job Description Index Scale Measures</th>
<th>N</th>
<th>Mean</th>
<th>% Variance Due to the Sampling Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay</td>
<td>2,149</td>
<td>.15</td>
<td>35.4%</td>
</tr>
<tr>
<td>Promotion</td>
<td>1,467</td>
<td>.22</td>
<td>58.4%</td>
</tr>
<tr>
<td>Work</td>
<td>1,619</td>
<td>.27</td>
<td>8.9%</td>
</tr>
<tr>
<td>Co-Workers</td>
<td>1,467</td>
<td>.18</td>
<td>18.5%</td>
</tr>
<tr>
<td>Supervision</td>
<td>1,927</td>
<td>.27</td>
<td>26.8%</td>
</tr>
</tbody>
</table>

* Adapted from Petty et al., 1984 (p. 719)

Some researchers studied the relationship between different job satisfaction aspects and propensity to leave the job (Parasuraman & Futrell, 1983). They reported correlation coefficients between propensity to leave and job, co-workers, supervision, pay and promotion were -0.471, -0.163, -0.23, -0.288, and -0.205 respectively. Abedel-Halim (1980) studied the relationship between satisfaction and performance; he reported that the correlation between performance and work, supervision, co-workers, pay, and promotion was 0.21, 0.22, 0.23, 0.11, and 0.00 respectively. Larson
(1984) studied patients' perceptions of nurses' caring behavior. Larson pointed out that "Caring permeates the cure and coordination dimensions of nursing practice, but for some patients perceptions of caring are most closely associated with the cure dimension" (p. 50).

Patient responses gave highest priority to having skillful care, being organized, and being on schedule. Patients appreciate demonstrated competency in providing physical care more than the psychosocial skills upon which nurses place a high value. Both patients and physicians tend to describe nurses in terms of technical skills. Boss (1981) stated that successful job performance is multidimensional. No single component, including skills proficiency, can adequately measure the performance dimensions of competent nursing practice.

In organizational settings, a study by Ben-Porat (1981) studied 104 blue-collar employees from industrial organizations in Israel and reported the correlation on different job dimensions and overall satisfaction with their jobs as follows: promotion 0.28; responsibility 0.32; pay 0.21; supervisors 0.36; peers 0.06; subordinates 0.47; work conditions 0.33; work achievement 0.27; tenure 0.41; work variety 0.50; and professional development 0.35.

Lebow (1983), in his extensive review of the literature in consumer satisfaction, concluded that the majority of consumers are satisfied with the service received. Trends point to weak relationship between patient demographic variables and satisfaction;
significant relationship between patient diagnosis, treatment history, and psychological status and satisfaction; stronger relationship between length of treatment and satisfaction; a strong relationship between satisfaction and global report of outcomes and weak relationship between satisfaction and therapist rating of outcomes.

Among the 13 inpatient satisfaction studies, Lebow found a satisfaction rate of 91 percent and 100 percent, satisfaction rate between 81 percent and 90 percent in two studies, satisfaction rate between 71 percent and 80 percent in eight studies, and a satisfaction rate between 61 percent and 70 percent in two studies. Weinstein (1979) was able to locate 38 studies assessing the attitudes of patients in inpatient settings. Weinstein reported 30 of the 38 samples as displaying favorable attitudes to hospitalization with a mean of 75.7% in inpatient.

Dissatisfied clients emerge in most studies, but with small percentages of less than 10 percent of clients. This has been the case with involuntary patients (Spensley, Edwards, & White, 1980). Other researchers found the percentage of dissatisfied patients to be above this level (e.g., Eisen & Grob, 1979).

In sum, the evidence from the literature review indicates that a consistent relationship exists between satisfaction and performance. But the causes of such relationship are not clear. In the following section a review of the most frequent factors
considered in satisfaction research for patients is presented.

Treatment of Variables

Type of Setting

A comparison between outpatient and inpatients' satisfaction was made by Attkisson, Nguyen, and Stegner (1981). They found satisfaction greater in outpatient treatment than in inpatient treatment. In outpatient studies, a high correlation exists between satisfaction and client ratings of therapeutic alliance (Jones & Zupell, 1982). The relationship between overall satisfaction and satisfaction with the providers remains stronger than even after care (Ben-Kociemba, Cotton, & Fortgang, 1982; Woodward, Santa-Barbara, Levin, & Epstein, 1978).

Experience of Practitioner

The effect of therapists' experience has been inconsistent. Experience was found to be related to satisfaction (Scher, 1975; Slater, Linn & Harris, 1982); others found no greater satisfaction with more experience (Frank & Hackman, 1975; Stevens, 1972).

Length of Treatment

The treatment variables that have received the most attention in relation to satisfaction have been the length of treatment, number of visits, and manner of termination (Lebow, 1982). In outpatient
settings, the correlation between satisfaction and number of visits was found to be relatively low (Kirchner, 1981; Willer & Miller, 1978); others found no relationship (Attkisson et al., 1982; Larsen, Attkison, Hargreves, & Nguyen, 1979; Stevens, 1972).

**Manner of Termination**

Findings concerning the manner of termination have been more consistent (Lebow, 1983). Studies found that completing treatment is related to patient satisfaction (Denner & Halprin, 1974). A strong relationship ($R = 0.61$) was found between premature termination and satisfaction (Attkisson & Zwick, 1982). Larsen et al., (1979) found a moderate ($r = .37$) relationship between manner of termination and patient's satisfaction. Studies focused on the degree of satisfaction in those who drop out early from the treatment found satisfaction between 50 percent and 70 percent (Heineman & Yudin, 1974; Kline, Adrian, & Spevak, 1974).

**Aspects of the Organization**

The structure of the organization in which treatment is delivered is likely to be important to satisfaction; however, this aspect of treatment received almost no attention (Lebow, 1983).
Patient Preparation for Treatment

Studies concerned with the preparation for treatment compared the satisfaction of clients who received orientation to outpatient treatment and those who did not receive specific orientation training. A study by Strupp and Bloxom (1973) showed that the satisfaction with either a role induction interview or film orientation exceeded the satisfaction with a standard initial contact. Other researchers failed to find relationships between preparation and satisfaction (Attkisson & Zwick, 1982).

Comparative Satisfaction Across Aspects of Treatment

Because satisfaction is a multidimensional construct, it is important in studying satisfaction to include the various aspects of satisfaction (Lebow, 1983). Satisfaction ratings in inpatient settings have been a response to inquiries for information about treatment (Eisen & Grob, 1982), amount of contact with staff (Ahmad & Koltuv, 1976), physical arrangement (e.g. privacy) (Ahmed & Koltuv, 1976), facilities (Distefano, Pryer, & Garrison, 1980a), meals (Distefano, Pryer, & Garrison, 1980b), recreation (Distefano et al., 1980b), the length of stay (Eisen & Grob, 1979), medication (Eisen & Grob, 1982) and cost (Eisen & Grob, 1982). Slater, Linn, & Harris, (1982) found the convenience of appointment time, and the explanation of the treatment offered clients the most frequent areas of dissatisfaction.
Patient Variables

Demographic Variables

Demographic variables do not appear to be good predictors of patient satisfaction (Lebow, 1983). Neither age (Distefano et al., 1980a; Frank, Salzman, & Fergus, 1977; Larsen et al., 1979), sex (Distefano et al., 1980b; Pryer, Distefano, & Dinning, 1982; Essex, Fox, & Groom, 1981; Frank et al., 1977), race (Essex et al., 1981; LeVois, Nguyen, & Attkisson, 1981), income (Distefano et al., 1980a; Essex et al., 1981; Larsen et al., 1979), martial status (Larsen et al., 1979), education (Distefano et al., 1980a; Larsen et al., 1979; LeVois et al., 1981) or social class (Larsen et al., 1979) have been consistently found to be related to the extent of satisfaction.

A few studies have found a relationship between age and patient satisfaction. Older patients were more satisfied (e.g., Pryer et al., 1982; Slater et al., 1981; Pandiani, Kessler, Gordon, & Dornkot, 1982). Attkisson, Robert, & Pascoe (1983) found women more satisfied across all types of service. Satisfaction was found to decrease with education (Mayer & Rosenblatt, 1974; Slater et al., 1981). Satisfaction was found to be greater between white compared to nonwhite patients (Attikisson et al., 1983; Larsen et al., 1979; Pryer et al., 1982). Marital status was found to be related to satisfaction (Reid, Moran, & DeWolfe, 1972).
Diagnostic and History Variables

The relationship between patient satisfaction and client diagnostic and treatment history appears to be more important than the demographic characteristics. Several studies have found satisfaction related to diagnosis. Satisfaction was found to be higher for drug abusers than in outpatients (Distefano et al., 1980a), in suicidal rather than in nonsuicidal utilizers of emergency services (Richman & Charles, 1976), in more disturbed than less disturbed clients in a day hospital (LeVois et al., 1981).

No relationship was found between satisfaction and history and diagnostic factors (e.g., Distefano et al., 1980a; Pryer et al., 1982).

World View

Patient satisfaction was found to be related to the attitude toward life. Distefano et al. (1980a) found inpatient satisfaction related to the mental health ideology of clients. Distefano et al. (1980b) found inpatient satisfaction to be related to the client's interpersonal trust, and LeVois et al. (1981) found satisfaction with day treatment related to the client's satisfaction with life.

Client Expectation

Patient satisfaction was found to be influenced by the fulfillment of client expectations more than by any fixed aspect of
treatment (Duckro, Beal, & George, 1979). The majority of studies have indicated that satisfaction is related to and probably depends on the meetings of client expectations (Gladstein, 1969; Martin, Sterne, & Hunter, 1976).

A moderate correlation was found in a study by Dowds and Fontana (1977). Kissel (1974) found a moderate correlation between therapist and client views.

**Relationship to Satisfaction of Significant Others**

The relatives of the patient were more satisfied than the patients, and patients were more positive about the outcome of treatment than were relatives (Grob, Eisen, & Berman, 1978).

**Inpatient Recidivism**

No relationship was found between satisfaction and inpatient recidivism or inpatients obtaining work (Wilier & Miller, 1978; Pryer et al., 1982).

In sum, many factors appear to influence patient satisfaction with the services in hospitals. These factors can be divided into two major categories: (1) factors associated with the medical treatment (the patient's first concern is to get good services and treatment) and (2) demographic and psychological factors.
Summary of the Chapter

This chapter contained two major sections. The first section focused on the review of the theoretical literature, especially the theories which dealt with the effect of the organizational structure on job performance and satisfaction. In this section the underlying theoretical model of this study was presented. The second section discussed empirical studies on the effects of organizational structural characteristics (i.e., organizational levels and organizational size) on job behavior and attitudes, job related factors (i.e., job experience and rater familiarity of ratee's job), rater and ratee demographic characteristics (i.e., age, sex, age-sex and age-race), and job performance-satisfaction relationship (i.e., performance causes satisfaction, and satisfaction causes performance).
CHAPTER III

DESIGN AND METHODOLOGY

This is a study of performance and satisfaction ratings by supervisors, patients, and nurses in the Jordanian government and private hospitals. The three purposes of this study are to study: (1) the differences between performance ratings of registered nurses by nurses (self-ratings), supervisors, and patients; (2) the relationship between job satisfaction and job performance; and (3) to study both purposes listed above in the context of organizational structure variables such as differences between and within government and private hospitals.

The Setting

Hospitals in Jordan can be categorized by ownership into three types. Each type is referred to as a sector. The three major health sectors in Jordan are (1) the government or public sector, (2) the private sector, and (3) the international sector. Hospitals in the government sector are not run for profit. Frequently maintained on a less-than-the-cost basis, the Jordanian government administers and supports 31 hospitals in the government sector. Government hospitals provide health services through four sources:
1. The Royal Medical Services six hospitals. Physicians, nurses, and other medical and administrative staff are full members of the military organization. They are promoted according to the army's rank system. Patients are admitted to the military hospitals if they are members of the armed forces or family members of those in the armed forces. The military issues medical health care cards for people eligible for the service in military hospitals.

2. University of Jordan Hospital. This is one of the largest hospitals in Jordan. In this hospital new physicians are trained, and it operates as a semi-private hospital. This hospital relies on the government for partial support in exchange for treatment of severe medical cases referred by the government hospitals.

3. The Department of Social Welfare through contracts with private hospitals. Patients benefiting from the Department of Social Welfare are treated in the private hospitals.

4. The Ministry of Health. The Ministry provides services through 26 hospitals and 277 medical centers distributed between 13 departments of health in principal cities, and 18 hospitals throughout Jordan. Not all hospitals in the government sector are administered by the Ministry of Health. Other government organizations administer hospitals owned by them (e.g., military and Jordan University). Hospitals administered by the Ministry of Health tend to be more centralized, formalized, and are nonprofit organizations, where job promotions are dependent on rank and seniority.
In the private sector there are 28 hospitals, most of them concentrated in Amman city. Hospitals in the private sector (proprietary hospitals) provide health services through different types of general and specialized hospitals. Other hospitals are owned privately and run for profit. The majority of these hospitals are staffed by skilled and experienced physicians and run by the owners, who are doctors. Hospitals in the international sector are responsible for administering hospitals belonging to international agencies (e.g., United Nations Relief and Works Agency for Palestinian refugees). (Ministry of Health, 1987).

Hospital Division of Labor

The following statements in this section on hospital division of labor are based on the observations of the research staff. Job structure in the Jordanian hospitals can be divided into five divisions:

1. Physicians control the operation of the hospitals and have control over the rest of the medical staff. In most cases their actions are not questioned. Their errors are justified by the patient's fatalistic beliefs. As in other societies, Jordanian physicians have a high social prestige. In the last ten years, physicians status has waned, due to the fact there are more physicians than Jordanian society needs.

2. Nurses are the agents of supervising physicians in carrying out treatment and patient care. Nurses represent the professional
perspective, and they are concerned with patients. They have to balance the physicians' orders for the care of patients against the independent demands of the patients. The nurses are supervised by a supervisory staff of nurses.

3. Technicians provide direct or indirect medical services and are trained in jobs necessary to the completion of the medical treatment (e.g., x-ray specialist).

4. Workers care for the physical plant of the hospital and perform the other tasks connected with the maintaining the plant, food, laundry, and other services necessary for the hospital survival.

5. Administrators organize, supervise, and coordinate the work of all workers in the hospitals. Administration is headed by the director of the hospital (a physician), and he is supported by clerical personnel.

Government Hospitals

The five government hospitals selected for this study were Albasheer, Alkarak, Alzarka, Jordan University, and Alsalet. The selection and sampling procedures are explained in the next section.

Jordan University Hospital was administered by the University of Jordan as a private hospital but relied on the government for part of its budget by taking some of referred patients from the hospitals administered by the Ministry of Health. After the Jordanian National Medical Institute was established in 1988, the classification of
hospitals was changed. All hospitals which are funded by the government are administered by the Jordanian National Medical Institute. For instance, the University of Jordan Hospital was administered by the University of Jordan and became one of the government hospitals administered by the Jordanian National Medical Institute. Also, hospitals administered by the Royal Medical Servicewere administered by the Jordanian National Medical Institute; but being military hospitals, these were still not fully administered by the Jordanian National Medical Institute. However, in 1990 due to requests from some Jordanian representatives in the Lower House, the Jordanian National Medical Institute was dissolved. The status of the University of Jordan Hospital is not clear at this time. It is highly likely that it will be administered again by the University of Jordan.

The Albasheer hospital is one of Jordan's oldest hospitals and is located in the southern part of Amman, in between two Palestinian refugee camps. It is very crowded and is comprised of several buildings separated from one another. Each building has a guard at its main door who prevents visitors from entering. He questions, "Where are you going?" and "Whom do you want to see?" There are specific times for visits. Visitors are not allowed in the hospital before and after those times. Visitors are all over the place and in the outside yards waiting for permission to see their relatives. Some departments are very noisy, both on the outside and from the inside, which creates an uncomfortable environment for the patients.
It would be hard to imagine a patient being able to sleep during the
daytime because of the noise and din.

The remainder of the hospitals (Alkarak, Alzarka and Alsalet),
are typical government hospitals consisting of one building.
Employees (medical staff) are part of the civil service system, where
they have ranks corresponding to their degrees (i.e., less than HS.,
B.A, M.A., or Ph.D.) and their experience within government agencies
(rank and seniority can be transformed from one government agency or
hospital to another).

Private Hospitals

The five largest private hospitals included in this study were
Alhekmah, Alamal, Alkhaledi, Alislami, and Malhas hospitals. The
Alkaledi hospital operated as a maternity hospital and then expanded
to provide general services. All of the private hospitals provide
general services, with the exception of Alamal Hospital, which
provides only maternity services. However, most private hospitals
started as specialized hospitals and were eventually forced to expand
and provide general services. Part of this was due to the fact that
they could not survive if they relied on one type of service only.
Taking into account the fact that Jordan is a small country and has
a small population, a small share of the medical market is left for
private hospitals. In addition, medical treatment is provided at
almost no cost in the government hospitals, and this further
decreases the portion private hospitals share in the medical market.
Most private hospitals rely on foreign labor (which is cheaper than Jordanian labor) due to the fact that Jordan still is in need of nurses. There are no ranks for employees, experience is very important, and most employees work under job contracts.

Sample

This study consisted of five different samples: (1) the total hospital sample consisted of ten hospitals; (2) the registered nurse sample consisted of 303 registered nurses; (3) the supervisor sample consisted of 60 supervisors; (4) the patient sample consisted of 400 patients; and (5) the personnel director sample consisted of 10 directors.

Hospitals

The sample of hospitals consisted of five of the largest hospitals in the government sector and five of the largest hospitals in the private sector. All military hospitals and hospitals administered by the Ministry of Health were administered by the Jordanian National Medical Institution from 1988 to 1990. Seven hospitals were excluded from selection. Six military hospitals administered by Royal Medical Services were excluded due to the difficulties of obtaining permission to conduct the study, as was one mental hospital administered by the Ministry of Health. However, one hospital was dropped from the study because the researcher felt the data from that hospital were contaminated (nurses and staff
interfered with the patients during the administration of patient questionnaires).

**Nurses**

All registered nurses who worked in shift A (238 registered nurses employed in the five largest government hospitals and 65 registered nurses employed in the five largest private hospitals) made up the nurse sample.

**Supervisors**

All registered nurses' corresponding supervisors who worked in shift A (45 supervisors employed in the top five large government hospitals and 15 supervisors employed in the top five large private hospitals) made up the supervisor sample. The ratio of supervisors to nurses was .189 in government and .231 in private hospitals.

**Patients**

The patients' convenience sample consisted of 400 adult inpatients receiving treatment and care in the ten selected hospitals (40 patients from each hospital). Subjects' anonymity was maintained by the use of a code number which consisted of the number assigned to the hospital. A detailed description of the selection was discussed in the procedures employed in the study.
Personnel Directors

All personnel department directors were asked to fill out a short questionnaire regarding structural variables such as hospital size, number of employees, and other needed information about each hospital. A letter was sent with a questionnaire to each director.

Instrumentation

Four instruments were used in this study: (1) Nurses' Questionnaire, (2) Supervisors' Questionnaire, (3) Patients' Questionnaire, and (4) Personnel Directors' Questionnaire. Two levels of measurement were used in registered nurses' performance ratings: (1) total performance scores and (2) individual performance item scores.

Nurses' Questionnaire

The rating scales are widely used and are probably the easiest performance appraisal technique to administer (Henderson, 1980). The Nurses' Questionnaire consisted of four major parts: (1) a cover letter describing the instructions and the aim of the study (Appendix B); (2) the Performance Rating Index (Zammuto, London, & Rowland, 1982), consisting of 19 items. For each item registered nurses were asked to rate themselves on a 20-point continuum for the day before the day the Performance Rating Questionnaire was distributed in each hospital; (3) the Job Satisfaction Index (Smith et al., 1969),
consisting of 10 items; and (4) demographic characteristics (see Appendix B).

**Supervisors' Questionnaire**

The Supervisors' Questionnaire was similar to the Nurses' Questionnaire, and consisted of the same parts. However, two things differed from the Nurses' Questionnaire: (1) supervisors were asked to rate registered nurses under their supervision on the same Performance Rating Index administered to the registered nurses, and (2) supervisors were asked to rate their own job satisfaction and to report demographic data about themselves. Therefore the questionnaire had slightly different wording from the one administered to registered nurses in the instructions (see Appendix C).

**Patients' Questionnaire**

The Patients' Questionnaire consisted of five parts: (1) a cover letter containing the instructions and information about the study and the researcher; (2) the Performance Rating Index, which was the same as the one used by Nurses and Supervisors, consisted of 19 items. Patients were asked to rate shift A nurses' performance in general as a group; (3) the Patients Satisfaction Scale (Attkisson & Zwick, 1982; Larsen et al., 1979; LeVois et al., 1981; Nguyen, Attkisson & Stegner, 1983) consisted of 8 items; (4) treatment
history, such as the number of times the patient was treated for the same case; and (5) the demographic variables (see Appendix D).

**Personnel Directors' Questionnaire**

The fourth questionnaire was administered to the Personnel Directors at each hospital in order to collect information regarding structural factors of the hospital, including hospital size, number of employees, number of medical staff, type of hospital, number of patients, and so forth.

**Instrument Development**

**Performance Rating Index**

An instrument developed by Zammuto et al. (1982) was adapted for use in this study in order to measure nurses' performance in Jordan. The instrument was translated by the author with the help of some experts from Mu'tah University, Al-Karak, Jordan, knowledgeable in both languages, Arabic and English, into the Arabic language, with some modifications. When the items were vague and hard to understand, Arabic synonyms were included and added in parentheses. The Performance Rating Index consisted of 19 items. Using self-report-paper-pen, straight answer questionnaire techniques, registered nurses were asked to rate their preference on a single 20-point continuum. The instrument consists of two parts. The first part included the performance aspects and consisted of 19
items. The items consisted of 18 characteristics derived from performance evaluation instruments used in four hospitals in California, and the 19th item was a rating of overall performance. The 19 items are: (1) technical competence, (2) ability to organize and schedule workloads, (3) skills in planning nursing care, (4) acceptability of completed work, (5) attendance and promptness, (6) observance of rest and lunch periods, (7) amount of work performed, (8) completion of work on schedule, (9) adaptability in emergencies, (10) quality of work, (11) dependability, (12) willingness to perform duties, (13) observance of rules and regulations, (14) effort applied, (15) accepting responsibility for own behavior, (16) making a high impression on visitors, (17) personal appearance, (18) skills in communications, and (19) overall performance. The second part consisted of demographic data including age, sex, education, income, and so forth.

**Job Satisfaction Index (Nurses and Supervisors)**

The Job Satisfaction Index is based on the Job Description Index (Smith et al., 1969) and was chosen as a satisfaction measurement tool. Smith et al. (1969) defined job satisfaction as feelings or effective responses to facets of the satisfaction (p. 6). The researcher added item #9 "Satisfaction with Benefits" and item #10 "Propensity to Leave" and divided satisfaction with work into two variables: (1) satisfaction with working hours and (2) satisfaction with working conditions. The researcher used only one measure for
each dimension by asking the participant to report his/her satisfaction on each dimension on a scale from 1 to 20, 1 for very dissatisfied and 20 for very satisfied.

The following ten items, plus two additional items added by the researcher, were used to measure job satisfaction for the nurse and supervisor participants: (1) satisfaction with pay, (2) satisfaction with co-workers, (3) satisfaction with supervisors, (4) satisfaction with job security, (5) satisfaction with opportunity for advancement, (6) satisfaction with working hours, (7) satisfaction with working conditions, and (8) satisfaction with benefits.

Reliability of the Job Satisfaction Index

The Job Description Index Scale has been shown to have a high internal and discriminate validity with INDSALEs, another standard scale used by researchers to measure sales people's satisfaction (Futrell, 1979). Furthermore, the Job Description Index Scale has been used by other researchers to measure sales people's satisfaction (Churchill & Ecotich, 1982). Other support for the Job Description Index Scale reliability was reported by Lopez (1982), who used the Spearman-Brown split reliability for job satisfaction. These measures for reliability ranged from 0.86 to .97.

Cronbach's alpha was computed for nurses' and supervisors' satisfaction index. The alpha coefficients for nurses shown in Table 2 range in value from a low of 0.76 for item numbers 24, 25, and 27 to 0.87 for item number 29. Alpha coefficients for the supervisors'
satisfaction index range in value from a low of 0.73 for item number 24 to 0.86 for item number 29.

Cronbach alpha for the Job Description Index Scale was 0.80, and the standardized alpha was 0.82. Each of the ten items representing the major variables was correlated with each of the remaining items and alpha derived from Cronbach's formula using SPSS-X. Cronbach's alpha for nurses, supervisors, and the combination of both are listed in Table 2. Hinshow and Atwood (1982) suggested that an acceptable alpha for a new scale is 0.70 or above, and for a mature scale it is 0.80 or above (p. 172).

**Patients' Satisfaction Scale**

A Client Satisfaction Scale developed by Lebow defined clients' satisfaction as "the extent to which treatment fulfills the wants, wishes, and desires for treatment of the client" (Lebow, 1983, p. 349). Satisfaction in this study was based on Lebow's definition and measured by self-report of satisfaction of the services received. The instrument used in this study to measure patients' satisfaction
Table 2
Job Description Index Reliability Analysis for Nurses, Supervisors and Nurses and Supervisors Combined

<table>
<thead>
<tr>
<th></th>
<th>Nurses N=303</th>
<th></th>
<th>Supervisors N=303</th>
<th></th>
<th>N &amp; S</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>MR</td>
<td>Mean</td>
<td>MR</td>
<td>Mean</td>
<td>MR</td>
</tr>
<tr>
<td>V21</td>
<td>87.53 .2145</td>
<td>.8683</td>
<td>98.40 .4776 .8472</td>
<td>92.97 .3039 .8659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V22</td>
<td>84.47 .2351</td>
<td>.8667</td>
<td>96.62 .6530 .8468</td>
<td>90.55 .3448 .8658</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V23</td>
<td>85.27 .4507</td>
<td>.8490</td>
<td>97.15 .4145 .8552</td>
<td>91.21 .4225 .8592</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V24</td>
<td>87.10 .5291</td>
<td>.8401</td>
<td>99.41 .6955 .8290</td>
<td>93.26 .5494 .8460</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V25</td>
<td>87.60 .5711</td>
<td>.8348</td>
<td>99.06 .4973 .8426</td>
<td>93.33 .5204 .8464</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V26</td>
<td>87.51 .5472</td>
<td>.8460</td>
<td>98.34 .5768 .8483</td>
<td>92.92 .5482 .8537</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V27</td>
<td>88.22 .6246</td>
<td>.8365</td>
<td>98.79 .7525 .8244</td>
<td>93.51 .6643 .8394</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V28</td>
<td>90.02 .4207</td>
<td>.8533</td>
<td>102.09 .4499 .8573</td>
<td>96.06 .4092 .8635</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Nurses alpha=.8667 Standardized Item alpha= .8644
* Supervisors alpha=.8609 Standardized Item alpha= .8781
* N & S alpha=.8711 Standardized Item alpha= .8750

was the Patient Satisfaction Scale developed by Attkisson and his colleagues at the University of California at San Francisco (Attkisson & Zwick, 1982; Larsen et al.,1979; LeVois et al., 1981; Nguyen, Attkisson, & Stegner, 1983) and translated into the Arabic language. Larsen et al. (1979) described the development of the Client Satisfaction Scale as follows: "The Client Satisfaction Scale was developed as a general measure of patient satisfaction."

Assessment of clients' satisfaction was analyzed from adult patients'
responses. Patients were asked to report their satisfaction on eight items measuring different aspects of satisfaction. Patients were also asked to evaluate other aspects of the hospital services, such as food, shelter, cost, and so forth. Moreover, patients were asked to evaluate whether the services and treatment corresponded to their expectations and of their families.

Validity and Reliability of the Patients' Satisfaction Scale

Nguyen et al. (1983) conducted seven studies for the purpose of developing this scale. A summary of the major studies on reliability and validity is given below.

Study 1. The purpose of this study was to ensure construct validity. The authors first consulted published and unpublished sources in order to identify the potential underlying dimensions of satisfaction with services. From the literature search nine dimensions of possible determinants of satisfaction with the services were identified. For each category they created nine items. These categories are (1) physical surroundings (e.g., in general, how satisfied are you with the comfort and attractiveness of our facility?); (2) support staff (e.g., when you first came to our program, did the receptionists and secretaries seem friendly and make you feel comfortable?); (3) kind/type of service (e.g., considering your particular needs, how appropriate was the kind of service you received?); (4) treatment staff (e.g., how competent and knowledgeable was the person with whom you worked most closely?); (5)
quality of service (e.g., how would you rate the quality of service you received?); (6) quantity of service (e.g., how satisfied are you with the amount of help you received?); (7) outcome of service (e.g., has the service you received helped you to deal more effectively with your problem?); (8) general satisfaction (e.g., in an overall, general sense, how satisfied are you with the service you received?); and (9) procedures (e.g., when you first came to our program, were you seen as promptly as you felt necessary?). Each item was phrased as a question having a 4-point anchored answer without the neutral position. A group of 32 mental health professionals ranked the nine items in each category according to how well they tapped the dimension in question. Items were ranked from best (9) to worst (1). Items receiving a mean rank of 5 or higher were kept in the pool. This left 45 items with a minimum of four items and a maximum of six items per category. The reduced pool was then evaluated by 31 members of various California County Mental Health Advisory Boards. These raters were asked, given their opinion as citizen advisors, to rank items (within each category) by selecting those items about which they would most like to receive feedback. The three top-ranked items were retained because their content was sufficiently different to justify inclusion.

Study 2. The purpose of this study was to study pyrometric properties and further refinement of the CSQ-31. This preliminary scale of 31 items was then administered to 248 mental clients in five independent service settings. Principle components factor analysis
was used in the data analysis, with squared multiple correlation as initial communality estimates. The first factor accounted for 43% of the total variance and about 75% of the common variance. The second factor accounted for less than 7% of the common variance. This is evidence that only one salient dimension underlies responses to the items in the preliminary CSQ-31 scale. The authors then selected the eight items which loaded highly on the unrotated first factor and that exhibited good inter-item and item total correlation alpha = 0.93, indicating that they possessed a high degree of internal consistency. In other words, the eight items provide a homogeneous estimate of general satisfaction with services.

Study 3. The purpose of this study was to test the reliability of CSQ scale. The authors developed parallel forms of the preliminary CSQ-31 scale. One of eight items that had the highest factor loading and four items chosen randomly from the remaining seven were included in both forms. These five items were removed from the CSQ-31, and the remaining 26 items of this set were placed in one of the two parallel forms. Thus, each parallel form contained 18 items, 5 of which are common to both forms (the CSQ-18, Form A and B). Both Forms A and B of the CSQ-18 were presented in counterbalanced order to 34 clients of a day treatment program in an urban community mental health center. The obtained means and standard deviation for Forms A and B were 2.94 (SD = 0.491) and 2.96 (SD = 0.447) respectively. The mean differences between Form A and Form B did not differ significantly from each other (t = -.50, df =
The two forms were correlated significantly ($r = 0.822, p < .01$) with each other.

**Reliability of Patients' Satisfaction Scale**

To measure the reliability of the Patients' Satisfaction Scale Cronbach's alpha was used. The alpha coefficients for all patients shown in Table 3 range in value from a low of 0.85 for the "amount of help received" subscale to 0.88 for "coming back for seeking help" subscale.

**Reliability of Performance Rating Index**

The performance index consisted of eighteen items and one universal item measuring the overall effectiveness. The eighteen items measure different aspects of nurses' performance: (1) technical competence, (2) ability to organize and schedule work loads, (3) skills in planning nursing care, (4) acceptability of completed work, (5) attendance and promptness, (6) observance of rest and lunch periods, (7) amount of work performed, (8) completion of work on schedule, (9) adaptability in emergencies, (10) quality of work, (11) dependability, (12) willingness to perform duties, (13) observance of rules and regulations, (14) effort applied, (15) accepting responsibility for own behavior, (16) making a high impression on visitors, (17) personal appearance, and (18) skill in communications.
To measure the reliability of the Performance Index, Cronbach's alpha was used. The amount of variance explainable by the Performance Index for all participants ranged from 0.20 (when excluding item #11) to 0.60 (with item #14 excluded). The percentage of the variance explained by the index ranged from 0.18 (with item #6 excluded) to 0.64 (with item #7 excluded). The amount of variance explained by the performance index for supervisors ranged from 0.22 (with item #11 excluded) to 0.73 (with item #3 excluded). Finally, the explainable variance by various items of the performance index for patients ranged from 0.25 (with item #11 excluded) to 0.55 (with item #4 excluded).
Table 3
Reliability Analysis for Patients Satisfaction Scale

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>MR^2</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of service you received</td>
<td>19.45</td>
<td>.4719</td>
<td>.8372</td>
</tr>
<tr>
<td>Did you get the kind of service you wanted?</td>
<td>19.53</td>
<td>.4230</td>
<td>.8425</td>
</tr>
<tr>
<td>To what extent has the service met your needs?</td>
<td>19.47</td>
<td>.4525</td>
<td>.8387</td>
</tr>
<tr>
<td>Recommending this hospital to someone</td>
<td>19.44</td>
<td>.4682</td>
<td>.8351</td>
</tr>
<tr>
<td>How satisfied have you been with the help?</td>
<td>19.47</td>
<td>.5167</td>
<td>.8301</td>
</tr>
<tr>
<td>Have the services helped you?</td>
<td>19.33</td>
<td>.3868</td>
<td>.8477</td>
</tr>
<tr>
<td>Would you come back here?</td>
<td>19.42</td>
<td>.3028</td>
<td>.8594</td>
</tr>
</tbody>
</table>

* N = 400, α = .86  Standardized Item α = .86

Translation

The instruments used in this study were translated from the English language to the Arabic language in three stages. First, the author translated the instruments, and after several revisions of the first version of the translation, it was given to four Arab graduate students (one of whom was a nurse). They were asked to read both the English and the Arabic versions, and certain corrections were made based on their comments and feedback.
The second stage: Ten faculty members at Mut'ah University in Al-Karak, Jordan were divided into two groups. Five of them were asked to review the English form and compare it to the Arabic form. The other five were asked to evaluate the Arabic form and to compare it with the English form.

The third stage: At this stage a pre-test of the translated instrument was conducted; and a group of registered nurses, supervisors, and patients (5 each) in government hospitals and a comparable group from the private hospitals were included in the pre-test. After completion of the pretest, a pilot test was conducted.
Table 4
Reliability Analysis for Performance Index for
Nurses, Supervisors, Patients and
All Raters Combined

<table>
<thead>
<tr>
<th></th>
<th>Nurses</th>
<th>Supervisors</th>
<th>Patients</th>
<th>All Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=303</td>
<td>N=303</td>
<td>N=400</td>
<td>N=1006</td>
</tr>
<tr>
<td>Mean</td>
<td>R²</td>
<td>α</td>
<td>Mean</td>
<td>R²</td>
</tr>
<tr>
<td>VI</td>
<td>292.23</td>
<td>.61</td>
<td>.91</td>
<td>275.94</td>
</tr>
<tr>
<td>V2</td>
<td>291.98</td>
<td>.60</td>
<td>.91</td>
<td>276.55</td>
</tr>
<tr>
<td>V3</td>
<td>291.67</td>
<td>.56</td>
<td>.91</td>
<td>276.34</td>
</tr>
<tr>
<td>V4</td>
<td>291.39</td>
<td>.51</td>
<td>.91</td>
<td>275.77</td>
</tr>
<tr>
<td>V5</td>
<td>290.68</td>
<td>.42</td>
<td>.92</td>
<td>275.26</td>
</tr>
<tr>
<td>V6</td>
<td>292.05</td>
<td>.18</td>
<td>.92</td>
<td>275.35</td>
</tr>
<tr>
<td>V7</td>
<td>291.36</td>
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<td>.91</td>
<td>275.62</td>
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<td>V8</td>
<td>291.19</td>
<td>.57</td>
<td>.91</td>
<td>275.61</td>
</tr>
<tr>
<td>V9</td>
<td>291.89</td>
<td>.63</td>
<td>.91</td>
<td>275.95</td>
</tr>
<tr>
<td>V10</td>
<td>292.09</td>
<td>.45</td>
<td>.91</td>
<td>276.42</td>
</tr>
<tr>
<td>V11</td>
<td>293.20</td>
<td>.21</td>
<td>.92</td>
<td>277.29</td>
</tr>
<tr>
<td>V12</td>
<td>291.18</td>
<td>.52</td>
<td>.91</td>
<td>275.87</td>
</tr>
<tr>
<td>V13</td>
<td>291.28</td>
<td>.57</td>
<td>.91</td>
<td>275.74</td>
</tr>
<tr>
<td>V14</td>
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<td>.61</td>
<td>.91</td>
<td>275.70</td>
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<tr>
<td>V15</td>
<td>290.72</td>
<td>.49</td>
<td>.91</td>
<td>275.64</td>
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<tr>
<td>V16</td>
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<td>.44</td>
<td>.92</td>
<td>276.13</td>
</tr>
<tr>
<td>V17</td>
<td>291.00</td>
<td>.44</td>
<td>.91</td>
<td>275.39</td>
</tr>
<tr>
<td>V18</td>
<td>291.51</td>
<td>.44</td>
<td>.91</td>
<td>275.92</td>
</tr>
</tbody>
</table>
As can be seen from Table 5, the alpha coefficient for all raters was 0.93. The alpha coefficient for nurses, supervisors, and patients was 0.92, 0.95, and 0.92 respectively.

Table 5

<table>
<thead>
<tr>
<th>Rater</th>
<th>α</th>
<th>Standardized α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses</td>
<td>.9238</td>
<td>.9311</td>
</tr>
<tr>
<td>Supervisors</td>
<td>.9568</td>
<td>.9577</td>
</tr>
<tr>
<td>Patients</td>
<td>.9277</td>
<td>.9289</td>
</tr>
<tr>
<td>All Raters</td>
<td>.9365</td>
<td>.9383</td>
</tr>
</tbody>
</table>

Pilot test

All research instruments were pilot tested on a group of 30 subjects. Ten were patients receiving treatment in the selected hospitals (five in the private and five in the government hospitals), and 10 were registered nurses (five from the government and five from the private hospitals), and 10 were supervisors (five from the government and five from the private hospitals). Subjects were given the instrument and asked to evaluate the services that they received and to rate nurses' job performance. Construct validity had been established through consensus among the consultants and pilot respondents that the behaviors were, in fact, descriptive of nursing
behaviors contributing to good client care.

Procedures

In this section, the procedures for administering the questionnaires used in the data collection are discussed for each group.

Nurses and Supervisors

All shift A registered nurses and their corresponding supervisors in the ten large government and private hospitals included in this study received letters stating the purpose of the study, accompanied by a copy of the research instrument in Arabic language for Arabian participants, and in English for foreign participants, along with answer sheets (see Appendix H). A Performance Rating Questionnaire was administered to all registered nurses, and a separate one was given to their supervisors. All registered nurses were asked to rate themselves, and every supervisor was asked to rate every nurse's job performance in his/her department. An identical English form was given to English-speaking nurses (e.g., Filipino). Each participant answer sheet bears a unique identification number that matched a corresponding master list of names generated before conducting the study and destroyed after finishing data collection.

All subjects were asked to rate performance only for the day the instrument was administered to avoid problems of recalling nurses.
past performance. Subjects were asked to indicate on a 20-point scale (1 = lowest to 20 = highest) how they would rate the job performance of each registered nurse on that day. This was done to avoid problems caused by supervisors and patients trying to recall information about past performance. Supervisors were instructed to complete the performance ratings for each of their subordinates participating in the study. A list of all registered nurses' names with a code for each name was generated and was given to every supervisor. Nurses were asked to complete self-rating forms. The researcher collected these forms the next day after the administration.

Patients

Nurses are assigned to wards, not to patients. This means if any patient needs treatment, any nurse who is free at the time would attend the patient. The results of the pilot study conducted on five nurses, supervisors, and patients from the government hospitals and the same number from the private hospitals revealed that patients were unable to identify which nurse served them the most; and they reported that different nurses had served them. Because of the method by which nurses were assigned in the hospitals, patients were asked to rate nurses as a collective (group) using the same index of performance.

Confidentiality was assured to all participants by stating on the cover letter that they were not to write their names on the
instruments, and assurance was given that no individual responses would be singled out. The cover letter (see Appendix H) contains the elements of protection for nurses, supervisors, and patients respectively. The following information was included:

1. The researcher's name and educational status
2. The purpose of the study
3. A description of the nature of subjects' participation was included (e.g., fill out forms).

Patient selection was based on their willingness to participate in the study. In the private hospitals the number of patients was not large enough to meet the needed sample size (40 patients), so the researcher had to wait three days after new patients were admitted to the hospital. A random sample of patients was planned; but due to the difficulties in sampling, a convenience sample of patients based on the patient acceptance to participate was adopted. Several problems were encountered in random sampling. (1) Patients' preacceptance to participate in the study. The researcher had to get patients' permission to conduct the patient rating and patient satisfaction study. The second step was to draw a random sample out of the total number of patients. This was a difficult step, especially in the large hospitals, where the researcher had to ask 400 patients in the hospital for their permission to participate and then draw a random sample from that group. Between the time period of asking patients and drawing the random sample, some of them left the hospitals. (2) Some patients agreed to participate but by the time
the researcher gave them the instrument, they could not participate as a consequence of the medical treatment. (3) In five private hospitals, taking a random sample was not possible. The researcher was forced to take all patients, because there was not a large enough number to meet the needed sample size.

**Personnel Directors**

Finally, a Personnel Director Questionnaire was administered to the ten personnel directors in the ten largest hospitals (five from each sector). The purpose of this questionnaire was to collect information on the hospital structural variables such as size, number of departments, and so forth. (Appendix H).

**Satisfaction**

Two different measures were used to rate satisfaction. Satisfaction with the services (for patients only) was measured by the Patients Satisfaction Scale. Job satisfaction Index (for nurses and supervisors) was measured using Job Satisfaction Index.

**Patients**

Patients' satisfaction was measured on a 8-item patient satisfaction scale administered to 400 patients in 10 hospitals. The patient satisfaction scale covers the following aspects of satisfaction: (1) quality of service, (2) services meet needs, (3) service received, (4) recommending the hospital to other patients,
(5) amount of help, (6) services helped, (7) overall satisfaction, and (8) returning to the hospital. Patients were also asked to evaluate other aspects of the services they received (food, shelter, information about treatment, amount of contact with staff, physical arrangement, meals, recreation, medication, and costs). Patients were asked to state their satisfaction with the services and treatment on a 4-point scale (4=excellent services and 1=poor services).

**Nurses and Supervisors**

Nurses' and supervisors' satisfaction were measured by the Job Satisfaction Index instrument which contained 10 items related to satisfaction: (1) overall satisfaction with work, (2) satisfaction with pay, (3) satisfaction with co-workers, (4) satisfaction with supervisors (subordinates), (5) satisfaction with job security, (6) satisfaction for opportunity for advancement, (7) satisfaction with working hours, (8) satisfaction with working conditions, (9) satisfaction with benefits, and (10) propensity to leave. Nurses and supervisors were asked to state their satisfaction with the job on 20-point scale (20=high and 1=low).

**Demographic Variables**

Data were collected on the following demographic variables: (1) sex, (2) age, (3) education, (4) nationality, (5) religion, (6) marital status, (7) income, (8) employment status, (9) family size,
(10) speciality, (11) general experience, and (12) experience in the current position.

**Supervisors**

Data were collected on the following demographic variables: (1) sex, (2) age, (3) education, (4) nationality, (5) religion, (6) marital status, (7) income, (8) employment status, (9) family size, (10) speciality, (11) general experience, (12) experience in the current position, and (13) familiarity with nurses' performance.

**Patients**

Data were collected on the following demographic variables: (1) sex, (2) age, (3) education, (4) religion, (5) marital status, (6) income, (7) employment status, (8) family size, and (9) treatment and illness history (outpatient visits, number of times the patients stayed in the hospital, etc).

**Data Collection**

A cover letter stating the purpose of the study, accompanied by a copy of the research instrument in both Arabic and English, was presented to the Secretary of Health, asking the help and cooperation and participation of nurses, supervisors, and the directors of the personnel departments in the government hospitals. The Secretary of Health referred the researcher's letter to the director of the Jordanian National Medical Institute (Appendix A) for his approval.
A letter granting approval to conduct the study was sent to the participating hospitals and to the researcher. Another letter stating the purpose of the study, accompanied by a copy of the research instrument in Arabic and in English, was sent to each director of each participating private hospital, asking the cooperation and participation of nurses, supervisors, and the director of the personnel department in each hospital. A letter granting approval (see Appendix A) to conduct the study was sent to the participating hospitals and to the researcher.

Limitations

The results of this study were limited by the nature of the sample, the administration of the questionnaire, the interpretation of the findings, and the translation of the instrument from English into Arabic.

The Sample

There were three types of sampling problems in this study. There were samplings of (1) hospitals, (2) nurses, and (3) patients.

1. The sample of the hospitals consisted of the largest ten government and private hospitals in Jordan. All of the selected private hospitals, with the exception of Alislami Hospital, were small size hospitals (capacity less than 50 beds). All selected government hospitals, with the exception of the University of Jordan Hospital, were mid-size hospitals (capacity less than 100 beds).
Two other hospitals, one government and one private, were dropped from the original sample due to the lack of cooperation by the hospitals, and two other hospitals were substituted. The inclusion of large hospitals in the study was necessary to draw a large sample of nurses and patients. For example, several hospitals would not have been able to meet the requirements of a sample of forty patients.

2. The number of nurses in two private hospitals was much smaller than the other hospitals. In these two hospitals, registered nurses from all three shifts were included in the study. In all the other hospitals only shift A registered nurses and their corresponding supervisors were included.

3. The patients' sample was a convenience sample. Patients volunteered to participate in the study. In the five larger hospitals patients were included from selected departments. Only departments with nurses who participated in this study were included. In all, however, only four patients refused to participate in the study. In the case of the small private hospitals, the researcher had to wait (a day or so) until new patients were admitted to complete the needed sample size.

The Administration of the Questionnaire

In Alislami Hospital, a small portion of the population (19%) of registered nurses participated due to the fact that the person who administered the questionnaires was the assistant director of
the nursing department. The researcher was not allowed to contact the registered nurses, and some registered nurses believed that the administration of the hospital was conducting the study. Similarly, the director of the nursing department in that hospital was not in favour of the study. She did not cooperate with the researcher. In other words, the sampling frame from Alislami Hospital did not include all registered nurses, and the participation rate of nurses in Alislami Hospital was the lowest among all the hospitals.

Translation of the Instrument

Translation of the instrument into Arabic posed some problems. Great care was taken to translate the instrument as accurately as possible. In addition, the instrument was pretested, and changes were made on the basis of the pretesting. Inspite of these precautions, one of the translated items was still not quite clear for participants and was misinterpreted by respondents. Because nurses work as a team, the term dependability was misinterpreted as being reliant on others to complete the assigned work. This translation obviously needs to be reworded.

The Interpretation

Patients were unable to rate nurses individually, because nurses work as a team, therefore it was decided that patients would rate nurses as a team. This usually poses a problem regarding the
comparison of patients' performance ratings with nurses' self-rating and supervisors' ratings of nurses. The findings based on the analysis of these comparisons should be interpreted carefully. Another kind of an interpretation problem raised by some critics pertains to the self-ratings data. The validity and reliability of such studies has been questioned by these critics. These data were not the sole basis of the findings in this study, and the similarity of the self-ratings in the private and government hospitals lends support for the utility of such data.

**Measurement of the Variables**

In this section, the measurement of the dependent and independent variables are discussed.

**Dependent Variables**

The dependent variables used in this study were (a) discrepancy between nurses' self-rating, supervisor, and patient ratings of nurses' performance within and between government and private hospitals, and (b) discrepancy between nurses' supervisors' and patients' satisfaction with government and private hospitals.

**Independent Variables**

The independent variables were (a) hospital type (government vs. private), (b) the total performance index scores, (c) individual
performance item scores, (d) total satisfaction index scores, and (e) individual satisfaction item scores.

Research Questions

The following questions were generated from the research hypotheses:

1. Are there any differences in the total performance index scores as well as individual performance item between: (a) registered nurses vs. supervisors and registered nurses vs. patients in all hospitals combined and within government and private hospitals? (b) registered nurses vs. supervisors and registered nurses vs. patients within each hospital on the total performance index score only? (c) combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals? (d) separate satisfaction ratings of registered nurses, supervisors, and patients between government and private hospitals in the total satisfaction index scores only?

2. What is the relationship between rater’s satisfaction and performance ratings?

Research Hypotheses

The major hypotheses were divided into two groups: (1) performance ratings and (2) satisfaction ratings. The ratings of the registered nurses' performance were made by nurses' self-, supervisors' and patients' ratings. The ratings of satisfaction were
rated by registered nurses, supervisors, and patients. Six major hypotheses were derived for five categories. Comparisons of total performance index scores as well as individual performance item scores were made between (1) registered nurses vs. supervisors and registered nurses vs. patients in all hospitals combined and within government and private hospitals, (2) registered nurses vs. supervisors and registered nurses vs. patients within each hospital on the total performance index score only, (3) combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals, (4) separate satisfaction ratings of registered nurses, supervisors, and patients between government and private hospitals in the total satisfaction index scores only, and (5) the relationship between rater's satisfaction and performance ratings was also measured.

Hypothesis 1.1

There are no differences between registered nurses' self-rating and supervisors' rating for all hospitals combined on the total performance index scores and individual performance item scores.

Hypothesis 1.2

There are no differences between registered nurses' self-rating and patients' rating for all hospitals combined on the total performance index scores and individual performance item scores.
Hypothesis 2.1

There are no differences between registered nurses' self-rating and supervisors' rating on the total performance index scores and individual performance item scores for all government hospitals combined.

Hypothesis 2.2

There are no differences between registered nurses' self-rating and patients' rating on the total performance index scores and individual performance item scores for all government hospitals combined.

Hypothesis 2.3

There are no differences between registered nurses' self-rating and supervisors' rating on the total performance index scores and individual performance item scores for all private hospitals combined.

Hypothesis 2.4

There are no differences between registered nurses' self-rating and patients' rating on the total performance index scores and individual performance item scores for all private hospitals combined.
Hypothesis 3.1

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all raters combined.

Hypothesis 3.2

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all registered nurses combined.

Hypothesis 3.3

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all supervisors combined.

Hypothesis 3.4

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all patients combined.

Hypothesis 4.1

There are no differences between registered nurses' self-rating and supervisors' rating within each of the participating hospitals on the total performance index scores.
Hypothesis 4.2

There are no differences between registered nurses' self-rating and patients' rating within each of the participating hospitals on the total performance index scores.

Hypothesis 5.1

There are no differences between the government and private hospitals on the total satisfaction index scores and the individual satisfaction item scores for all registered nurses combined.

Hypothesis 5.2

There are no differences between the government and private hospitals on the total satisfaction index scores and the individual satisfaction item scores for all supervisors combined.

Hypothesis 5.3

There are no differences between the government and private hospitals on the total satisfaction index scores and the individual satisfaction item scores for all patients combined.

Hypothesis 6.1

There is no relationship between raters' overall satisfaction and raters' ratings of nurses' overall effectiveness within government and private hospitals.
Hypothesis 6.2

There is no relationship between the raters' total performance index scores and raters' total satisfaction index scores.

Hypothesis 6.3

There is no relationship between raters' ratings of registered nurses' overall effectiveness and raters' individual satisfaction item scores.

Data Analysis

The information from the Nurses' Questionnaire, Supervisors' Questionnaire, Patients' Questionnaire, and the general information sheet was inputted into the VAX computer at Western Michigan University, Kalamazoo. Three types of raters were compared in rating registered nurses' performance: (1) registered nurses' self-ratings, (2) supervisors' ratings of registered nurses (individual ratings), and (3) patients' rating (group ratings).

Three levels of analyses were used to test the differences between (1) raters on the total performance index scores as well as on individual performance item scores for all hospitals combined, within government and private hospitals, and within each hospital in the total performance scores only; (2) between government and private hospitals in the separate performance and satisfaction ratings of registered nurses, supervisors, and patients; and (3) between
government and private hospitals in combined performance ratings of registered nurses, supervisors, and patients. The Statistical Package for Social Sciences (SPSS-X), 1990 was used to analyze the data. Independent t-test (SPSS-X, pp. 969-975) was used to test the mean differences in the total performance scores as well as individual performance items between registered nurses vs. supervisors and registered nurses vs. patients in all hospitals combined, within government and private hospitals, and within each hospital for the total performance scores only. The t-tests were used to examine the differences between government and private hospitals in separate performance and satisfaction ratings for registered nurses, supervisors, and patients. Also, t-tests were used to examine the differences between government and private hospitals in combined performance ratings, for registered nurses, supervisors, and patients, between raters within and between hospitals in rating nurses' performance. A Pearson correlation coefficient was used to examine the relationship between rater's satisfaction and rater's ratings of nurses' performance, including transforming correlation coefficients to Fisher Z in order to test for the equality of groups correlation coefficients by computing Chi-square.

A significance level of .05 was set as a criteria to reject or retain the null hypotheses.
Summary

This chapter contains a description of the (a) setting, (b) sample, (c) research instrument, (d) instrument development, (e) procedures, (f) data collection, (g) research questions, (h) research hypotheses, (i) data analysis, and (j) summary of the chapter.

An instrument developed by Zammuto et al. (1982) was adapted for use in this study in order to measure nurses' performance in Jordan. The instrument (with some modifications) was translated by the author, with the help of some experts from Mu'tah University knowledgeable in both languages, Arabic and English, into the Arabic language. When the items seemed vague and hard to understand, Arabic synonyms were included and added in parentheses to the scales. The Performance Rating Index consisted of 19 items. Using self-report-paper-pen, straight answer questionnaire techniques, registered nurses were asked to rate their preference on a single 20-point continuum. The Job Description Index (Smith et al., 1969) was chosen as a satisfaction measurement tool.

In summary, this chapter presented a description of the research instrumentation employed in this study, including the design of the study and the sample. The instruments used to measure performance ratings and satisfaction, as well as research hypotheses were identified. In addition, the procedures for collecting and analyzing the data were discussed.
CHAPTER IV

FINDINGS

This chapter presents the findings of this study and consists of three sections: (1) characteristics of the sample, (2) test of research hypotheses, and (3) a summary of the analysis.

The first section describes the characteristics of the sample drawn from hospitals in Jordan. The second section reports the findings and tests of the research hypotheses. It includes the tests for the differences between raters (registered nurses, supervisors and patients). It also includes a test for the differences between the types of hospitals (government and private) and within hospitals in the ratings of registered nurses performance by registered nurses, supervisors, and patients. The final section reports a summary of the research findings.

Characteristics of the Sample

Hospitals

The hospital sample was composed of the top ten large hospitals in government and private sectors in Jordan. The hospital sample was based on the size of the hospital measured by the number of beds (capacity). As can be seen from Table 6, Al-Karak Hospital is the
only government hospital located in the southern region; the rest of
government hospitals are located in Jordan's central region. The
largest government hospital in terms of number of employees is the
University of Jordan Hospital, with only four major departments.

Table 6
Participating Government Hospitals by the Structural
Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Albasheer</th>
<th>Alkarak</th>
<th>Alzarka</th>
<th>J. University</th>
<th>Alsael</th>
</tr>
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<tbody>
<tr>
<td>Departments</td>
<td>14</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Employees</td>
<td>1222</td>
<td>305</td>
<td>573</td>
<td>1750</td>
<td>350</td>
</tr>
<tr>
<td>Medical Staff</td>
<td>583</td>
<td>92</td>
<td>253</td>
<td>275</td>
<td>131</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>145</td>
<td>17</td>
<td>75</td>
<td>297</td>
<td>32</td>
</tr>
<tr>
<td>Assisted Nurses</td>
<td>181</td>
<td>69</td>
<td>89</td>
<td>246</td>
<td>92</td>
</tr>
<tr>
<td>Capacity</td>
<td>514</td>
<td>80</td>
<td>260</td>
<td>507</td>
<td>150</td>
</tr>
<tr>
<td>Patients</td>
<td>412</td>
<td>65</td>
<td>178</td>
<td>413</td>
<td>90</td>
</tr>
<tr>
<td>Length of Service</td>
<td>22</td>
<td>16</td>
<td>29</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>

The number of the medical staff increases as the number of
employees increase. Most of government hospitals have been operating
for a long period of time. As can be seen from Table 7, private
hospitals, with the exception of Alislami Hospital, are small
hospitals in terms of number of employees and the capacity of the
hospital. Also, most of private hospitals have operated for a short period of time, with the exception of Malhas Hospital.

Table 7

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Alislami 6</th>
<th>Alhekmah 7</th>
<th>Alamal 8</th>
<th>Alkhaledi 9</th>
<th>Malhas 10</th>
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</thead>
<tbody>
<tr>
<td>Departments</td>
<td>18</td>
<td>10</td>
<td>11</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Employees</td>
<td>800</td>
<td>240</td>
<td>65</td>
<td>95</td>
<td>70</td>
</tr>
<tr>
<td>Medical Staff</td>
<td>100</td>
<td>14</td>
<td>9</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>100</td>
<td>60</td>
<td>14</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Assistant Nurses</td>
<td>184</td>
<td>40</td>
<td>12</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Capacity</td>
<td>300</td>
<td>100</td>
<td>25</td>
<td>60</td>
<td>40</td>
</tr>
<tr>
<td>Patients</td>
<td>220</td>
<td>55</td>
<td>11</td>
<td>41</td>
<td>33</td>
</tr>
<tr>
<td>Length of Establishment</td>
<td>8</td>
<td>13</td>
<td>4</td>
<td>3</td>
<td>45</td>
</tr>
</tbody>
</table>

Registered Nurses

As can be seen from Table 8, the total number of registered nurses working in the ten hospitals were 756. The total number of registered nurses who participated in the study was 303. The sample of registered nurses was 40.1% of the total number of registered nurses working in the ten hospitals. The lowest rate of participation was 19% from Alislami Hospital.
Table 8
Total Number of Registered Nurses and Participants by Sex and Hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Total #</th>
<th>Sample</th>
<th>%</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albasheer</td>
<td>145</td>
<td>54</td>
<td>37</td>
<td>12</td>
<td>42</td>
</tr>
<tr>
<td>Alkarak</td>
<td>17</td>
<td>8</td>
<td>47</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Alzarka</td>
<td>75</td>
<td>33</td>
<td>44</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>Jordan University</td>
<td>297</td>
<td>126</td>
<td>42.4</td>
<td>12</td>
<td>114</td>
</tr>
<tr>
<td>Alsalet</td>
<td>32</td>
<td>17</td>
<td>53.1</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Alislami</td>
<td>100</td>
<td>19</td>
<td>19</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Alkhaledi</td>
<td>60</td>
<td>27</td>
<td>45</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Almal</td>
<td>14</td>
<td>8</td>
<td>57.1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Alhekmah</td>
<td>5</td>
<td>3</td>
<td>60</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Malhas</td>
<td>9</td>
<td>8</td>
<td>88.8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>754</strong></td>
<td><strong>303</strong></td>
<td><strong>40.1</strong></td>
<td><strong>42</strong></td>
<td><strong>261</strong></td>
</tr>
</tbody>
</table>

Demographic data regarding registered nurses, supervisors, and patients are described under the following subheadings: religion, sex, age, marital status, income, and education. The sample of registered nurses were composed of 303 registered nurses who work in the ten hospitals. As can be seen from Table 8, the majority of registered nurses in the sample were females (86.1%) between the ages of 18 and 39 years (95.7%). The majority of registered nurses were
Muslims (71.3%), and 28.7% were Christians. The majority of the registered nurses were unmarried (57.1%).

Supervisors

As can be seen from Table 9, the majority of supervisors in the sample were females (75%) between the ages of 18 and 39 years (81.7%). More than the half of the supervisors were Muslims (60%), and 40% were Christians. About half of the supervisors were married (58.3%).

Patients

The sample of patients was a convenience sample composed of 400 patients (40 from each hospital). As can be seen in Table 9, half of the patient sample were males (51%) between the ages of 18 and 39 years of age (63.5%). Of these, 91.5% were Muslims and 8.5% Christians. Most patients in the sample were married (69%). In terms of employment status, 20% of the patients were employed by government, 27% by private sector, 10% have their own business, 36.5% were unemployed, and 6.5% were not in the labor market. More than half the patients have been in hospitals prior to their current admission (57.8%). Of those who had been in hospitals before, 36% had been admitted four times to different hospitals; and 37.8% had been hospitalized for the same condition, 42% had been in the same hospital before; 32% had been patients more than three times in the
same hospital. Only 16.3% of the patients have relatives working in

Table 9
Percentage Distribution for Respondents From Registered Nurses, Supervisors, and Patients

<table>
<thead>
<tr>
<th>Variable</th>
<th>Supervisors N=60</th>
<th>R. Nurses N=303</th>
<th>Patients N=400</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim</td>
<td>36  60</td>
<td>216  71.3</td>
<td>366  91.5</td>
</tr>
<tr>
<td>Christian</td>
<td>24  40</td>
<td>87  28.7</td>
<td>34  8.5</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td>45  75</td>
<td>261  86.1</td>
<td>196  49</td>
</tr>
<tr>
<td>Males</td>
<td>15  25</td>
<td>42  13.9</td>
<td>204  51</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 18</td>
<td>00  00</td>
<td>00  00</td>
<td>38  9.5</td>
</tr>
<tr>
<td>18-28</td>
<td>24  40</td>
<td>216  71.3</td>
<td>164  41</td>
</tr>
<tr>
<td>30-39</td>
<td>25  41.7</td>
<td>74  24.4</td>
<td>90  22.5</td>
</tr>
<tr>
<td>40-49</td>
<td>06  10</td>
<td>11  3.6</td>
<td>65  16.3</td>
</tr>
<tr>
<td>50-59</td>
<td>05  08.3</td>
<td>2  0.7</td>
<td>24  6</td>
</tr>
<tr>
<td>Over 60</td>
<td>00  00</td>
<td>00  00</td>
<td>19  4</td>
</tr>
</tbody>
</table>

the hospital, and 37.5% had made outpatient visits to the hospital. Of those who made outpatient visits, 18% made up to three visits. And, finally, 49.5% of the patients paid their hospital bills, 30.5% were paid by government, 12% by private sources.

Tests of the Hypothesis

This section presents tests of hypotheses. The statistical analyses were computed using alpha level .05 to determine the criteria for rejecting a type I error. Ratings were divided into two types: (1) performance ratings and (2) satisfaction ratings. Performance was rated by self, supervisor, and patient. Satisfaction was rated by registered nurses, supervisors, and patients. The t-test for independent two-sample means was used to test a total of 28 comparisons. These comparisons were divided into two groups. (1) Comparisons of the total as well as individual performance item scores between registered nurses vs. supervisors and registered nurses vs. patients within each hospital. (2) Comparisons of total as well as individual satisfaction item scores as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals; (c) between registered nurses vs. patients on the total scores within each hospital.
coefficient correlation was used to test the relationship between rater overall satisfaction and rater ratings of registered nurses' overall effectiveness in all hospitals, the relationship between rater total satisfaction scores and rater's ratings of registered nurses performance on the mean of the total performance index, and the relationship between rater ratings of registered nurse overall effectiveness and rater's ratings on the satisfaction individual item scores.

Comparisons Between Raters for All Hospitals Combined

In this section t-tests for mean differences on the total performance index scores as well as individual performance item scores between registered nurses vs. supervisors and registered nurses vs. patients for all hospitals combined were computed.

Hypothesis 1.1

There are no differences between registered nurses' self-ratings and supervisors' ratings on the total performance index scores and individual performance item scores for all hospitals combined.

Overall Test

The results obtained for t-test are presented in Table 10. The mean score of registered nurses' self-ratings on the total
performance index scores was higher than the mean score of supervisor ratings of registered nurses' performance on the same index.

The mean difference between registered nurses' self-ratings on the total performance index scores, and supervisors ratings of registered nurses' performance on the same index was found to be significant at .05 alpha level. Therefore, the null hypothesis of zero mean difference was rejected. The alternative hypothesis is that there are differences between registered nurses, and supervisors in the mean of the total performance index score is retained and was significant at alpha 0.000.

<table>
<thead>
<tr>
<th>Rater</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>303</td>
<td>17.15</td>
<td>1.8</td>
<td></td>
<td>604</td>
<td>5.42</td>
</tr>
<tr>
<td>Supervisors</td>
<td>303</td>
<td>16.23</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* N = 65 rating 303 registered nurses.
** Significant at the .05 level.

**Individual Item Tests**

A separate t-test was used for each of the 18 items (see Table 11). The means of the nurses' self-ratings in individual performance items were higher than the mean of the supervisor ratings of nurses'
Table 11

*t*-Test for Differences in the Mean Scores of Each Individual Item Scores Between Registered Nurses and Supervisors for All Hospitals Combined

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses</th>
<th>Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>#1 Technical competence</td>
<td>16.4</td>
<td>2.6</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.7</td>
<td>2.7</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>17.0</td>
<td>2.6</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.3</td>
<td>2.7</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>18.0</td>
<td>2.5</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.6</td>
<td>3.5</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.3</td>
<td>2.4</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.5</td>
<td>2.8</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.8</td>
<td>2.8</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.6</td>
<td>2.7</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.5</td>
<td>3.9</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>17.5</td>
<td>2.9</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>17.4</td>
<td>2.7</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.6</td>
<td>2.6</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>17.9</td>
<td>2.6</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.9</td>
<td>2.9</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.4</td>
<td>2.4</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.2</td>
<td>2.6</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
performance, with the exception of one item (observance of rest and lunch periods).

All the mean differences between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance were found to be significant at .05 alpha level with the exception to two items' technical competence ($p = .210$), and observance of rest and lunch periods ($p = .676$).

**Hypothesis 1.2**

There are no differences between registered nurses' self-ratings and patients' rating on the total performance index scores and individual item scores for all hospitals combined.

**Overall Test**

As shown in Table 12, the mean of the registered nurses' self-ratings on the total performance index scores was higher than the mean of the patients on the same index. The mean difference between registered nurses' self-ratings of their performance and patients' ratings of registered nurses' performance was found to be significant at alpha level .05 ($p = .008$). The null hypothesis that there are no differences between registered nurses' self-ratings and patients' ratings of registered nurses' performance was rejected. The alternative hypothesis that there are significant differences in the mean performance index score between registered nurses and
the mean performance index score between registered nurses and patients was retained.

Table 12

<table>
<thead>
<tr>
<th>Rater</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>303</td>
<td>17.15</td>
<td>1.8</td>
<td></td>
<td>701</td>
<td>2.66</td>
</tr>
<tr>
<td>Patients</td>
<td>400</td>
<td>16.68</td>
<td>2.5</td>
<td></td>
<td>2.66</td>
<td>.008*</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

Individual Item Tests

As can be seen from Table 13, the mean of the nurses' self-ratings on each performance item's scores was higher than the mean of the patients' ratings on each of the performance item scores with the exception of two performance items (technical competence and observance of rest and lunch periods). The mean differences between the nurses' self-ratings of their performance, and the patients' ratings of nurses' performance for other items were found to be significant at alpha level .05 with the exception of seven items (items #1, #2, #9, #11, #16, #17, and #18). The associated null hypothesis with each of the significant items was rejected at alpha level .05.
### Table 13

**t-Test for Differences in the Mean Scores of Each Performance Item Scores Between Registered Nurses and Patients for All Hospitals Combined**

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.4</td>
<td>16.8</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.7</td>
<td>16.4</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>17.0</td>
<td>16.3</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.3</td>
<td>16.8</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>18.0</td>
<td>17.4</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.6</td>
<td>17.6</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.3</td>
<td>16.8</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.5</td>
<td>16.5</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.8</td>
<td>16.4</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.6</td>
<td>16.0</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.5</td>
<td>15.3</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>17.5</td>
<td>16.3</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>17.4</td>
<td>16.6</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.6</td>
<td>16.8</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>17.9</td>
<td>16.2</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.9</td>
<td>16.7</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.7</td>
<td>17.6</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.2</td>
<td>16.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical</td>
<td>16.4</td>
<td>2.6</td>
<td>16.8</td>
<td>3.3</td>
<td>701</td>
<td>-1.6</td>
<td>.110</td>
</tr>
<tr>
<td>#2 Ability</td>
<td>16.7</td>
<td>2.7</td>
<td>16.4</td>
<td>3.5</td>
<td>701</td>
<td>1.04</td>
<td>.300</td>
</tr>
<tr>
<td>#3 Skills</td>
<td>17.0</td>
<td>2.6</td>
<td>16.3</td>
<td>4.0</td>
<td>701</td>
<td>2.68</td>
<td>.008*</td>
</tr>
<tr>
<td>#4 Acceptab</td>
<td>17.3</td>
<td>2.7</td>
<td>16.8</td>
<td>3.3</td>
<td>701</td>
<td>2.15</td>
<td>.032*</td>
</tr>
<tr>
<td>#5 Attendance</td>
<td>18.0</td>
<td>2.5</td>
<td>17.4</td>
<td>3.6</td>
<td>701</td>
<td>2.51</td>
<td>.012*</td>
</tr>
<tr>
<td>#6 Observe</td>
<td>16.6</td>
<td>3.9</td>
<td>17.6</td>
<td>3.2</td>
<td>701</td>
<td>-3.7</td>
<td>.000*</td>
</tr>
<tr>
<td>#7 Amount</td>
<td>17.3</td>
<td>2.4</td>
<td>16.8</td>
<td>3.4</td>
<td>701</td>
<td>2.17</td>
<td>.030*</td>
</tr>
<tr>
<td>#8 Completion</td>
<td>17.5</td>
<td>2.8</td>
<td>16.5</td>
<td>3.9</td>
<td>701</td>
<td>3.92</td>
<td>.000*</td>
</tr>
<tr>
<td>#9 Adaptab</td>
<td>16.8</td>
<td>2.8</td>
<td>16.4</td>
<td>4.0</td>
<td>701</td>
<td>1.53</td>
<td>.127</td>
</tr>
<tr>
<td>#10 Quality</td>
<td>16.6</td>
<td>2.7</td>
<td>16.0</td>
<td>4.0</td>
<td>701</td>
<td>2.19</td>
<td>.029*</td>
</tr>
<tr>
<td>#11 Dependab</td>
<td>15.5</td>
<td>3.9</td>
<td>15.3</td>
<td>4.6</td>
<td>701</td>
<td>0.38</td>
<td>.703</td>
</tr>
<tr>
<td>#12 Willingns</td>
<td>17.5</td>
<td>2.9</td>
<td>16.3</td>
<td>4.0</td>
<td>701</td>
<td>4.16</td>
<td>.000*</td>
</tr>
<tr>
<td>#13 Observanc</td>
<td>17.4</td>
<td>2.7</td>
<td>16.6</td>
<td>3.6</td>
<td>701</td>
<td>3.10</td>
<td>.002*</td>
</tr>
<tr>
<td>#14 Effort</td>
<td>17.6</td>
<td>2.6</td>
<td>16.8</td>
<td>3.7</td>
<td>701</td>
<td>3.27</td>
<td>.001*</td>
</tr>
<tr>
<td>#15 Acceptin</td>
<td>17.9</td>
<td>2.6</td>
<td>16.2</td>
<td>4.3</td>
<td>701</td>
<td>6.12</td>
<td>.000*</td>
</tr>
<tr>
<td>#16 Making</td>
<td>16.9</td>
<td>2.9</td>
<td>16.7</td>
<td>4.2</td>
<td>701</td>
<td>0.49</td>
<td>.624</td>
</tr>
<tr>
<td>#17 Personal</td>
<td>17.7</td>
<td>2.4</td>
<td>17.6</td>
<td>2.9</td>
<td>701</td>
<td>0.14</td>
<td>.892</td>
</tr>
<tr>
<td>#18 Skill</td>
<td>17.2</td>
<td>2.6</td>
<td>16.8</td>
<td>3.7</td>
<td>701</td>
<td>1.28</td>
<td>.203</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.
Ranks of Each Performance Item by All Raters for All Hospitals Combined

In this section a comparison of all three ratings of registered nurses, supervisors, and patients is presented. The three highest rated performance item means by registered nurses were attendance and promptness, accepting responsibility for own behavior, and personal appearance. Supervisors' three highest ranked ratings of nurses' performance were attendance and promptness the highest aspects personal appearance, and observance of rest and lunch periods. However, the patients' three highest ranked performance items of patients' ratings of nurses' performance were personal appearance, observance of rest and lunch periods, and attendance and promptness. Dependability was ranked by all raters as the lowest performance aspect, followed by technical competence (registered nurses) the ability to organize and schedule work loads (supervisors), and quality of work (patients). There were similarities between the ratings as well as differences (Table 14). For instance, similarities were found between registered nurses' and supervisors' and between registered nurses' and patients' highest and lowest mean ranks of their ratings. Similarities between registered nurses and supervisors can be attributed to the fact both belong to the same profession and they are familiar with the basic professional aspects of practicing nursing services. On the other hand, similarities between registered nurses and patients can be attributed to the fact that they interact as providers of services and receivers of the
Table 14

Ranking of Mean Scores of All Raters in Each Performance Item for All Hospitals

<table>
<thead>
<tr>
<th>Registered Nurses</th>
<th>Supervisors</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Mean</td>
<td>Variable</td>
</tr>
<tr>
<td>#11</td>
<td>15.521</td>
<td>#11</td>
</tr>
<tr>
<td>#1</td>
<td>16.488</td>
<td>#2</td>
</tr>
<tr>
<td>#10</td>
<td>16.630</td>
<td>#10</td>
</tr>
<tr>
<td>#6</td>
<td>16.673</td>
<td>#3</td>
</tr>
<tr>
<td>#2</td>
<td>16.739</td>
<td>#16</td>
</tr>
<tr>
<td>#9</td>
<td>16.828</td>
<td>#9</td>
</tr>
<tr>
<td>#16</td>
<td>16.934</td>
<td>#1</td>
</tr>
<tr>
<td>#3</td>
<td>17.050</td>
<td>#18</td>
</tr>
<tr>
<td>#18</td>
<td>17.208</td>
<td>#12</td>
</tr>
<tr>
<td>#4</td>
<td>17.333</td>
<td>#4</td>
</tr>
<tr>
<td>#7</td>
<td>17.356</td>
<td>#13</td>
</tr>
<tr>
<td>#13</td>
<td>17.439</td>
<td>#14</td>
</tr>
<tr>
<td>#8</td>
<td>17.535</td>
<td>#15</td>
</tr>
<tr>
<td>#12</td>
<td>17.545</td>
<td>#7</td>
</tr>
<tr>
<td>#14</td>
<td>17.680</td>
<td>#8</td>
</tr>
<tr>
<td>#17</td>
<td>17.726</td>
<td>#17</td>
</tr>
<tr>
<td>#15</td>
<td>17.997</td>
<td>#6</td>
</tr>
<tr>
<td>#5</td>
<td>18.043</td>
<td>#5</td>
</tr>
</tbody>
</table>
It can be concluded from Table 14 that raters at different levels rate the overall effectiveness differently. The ratings for overall effectiveness were ranked 6, 11, and 11 by registered nurses, supervisors, and patients respectively. Actors (nurses) rated overall effectiveness differently than observers (supervisors and patients). There was some agreement between raters at different levels on the highest and lowest items. Registered nurses, supervisors, and patients agreed on two items out of three as the highest (item 5 and item 17). Registered nurses, supervisors and patients agreed on two items out of three as the lowest three items (item 11 and item 10).

As can be observed from Figure 3, all raters followed similar patterns of rating nurses' performance. Patients rated registered nurses' performance lower than supervisors' or registered nurses' self-ratings.

Summary of the First Hypothesis

Nurses' self-ratings were higher than either the supervisors' ratings of nurses' performance or patients' ratings of nurses' performance. This finding is consistent with other research findings for different occupations. Similar findings were reported for clerical employees (Parker, Taylor, Barrett, & Martens, 1959),
technical employees (Kirchner, 1966), nurses (Klimoski & London, 1974), first level supervisors (Walden & Thornton, 1979), and executives (Holzbach, 1978). The lack of convergence between nurses, supervisors, and patients is neither surprising nor problematic. Interpretation of these findings can be attributed to the fact that different raters may observe different dimensions of the performance or have different definitions of effective performance and,
consequently, arrive at different assessments of the same individual performance (Borman, 1974; Landy & Farr, 1980), or a group of people as well.

Raters at different levels disagreed in rating registered nurses' performance. This can be explained by differences in the organizational levels occupied by raters. This finding supported the argument made by (Borman, 1974; Landy et al., 1978) that raters at different levels disagree on both dimensions and overall ratings. The findings of this study partially support Zammuto's et al. (1982) argument that raters at different levels (registered nurses' self-, supervisors', & patients') rate overall performance differently, but they would agree on some dimensional ratings. All explanations by Zammuto et. al (1982), Borman (1974) and Landy et al. (1978) suggest that raters occupying the same level would provide similar ratings. These interpretations are consistent with Merton's (1968) and Kane and Lawler's (1979) analyses that organizational structural characteristics influence employee behavior and attitudes.

Comparisons Between Raters Within Government Hospitals

In this section t-tests for differences in the mean of the total performance scores as well as individual performance item scores between registered nurses vs. supervisors and registered nurses vs. patients within government hospitals were computed.
Hypothesis 2.1

There are no differences between registered nurses' self-ratings and supervisors' ratings on the total performance index scores and individual performance item scores for all government hospitals combined.

Overall Test

As shown in Table 15, the mean of registered nurses' self-ratings on the mean performance index index scores was greater than the mean of supervisors' ratings of registered nurses' performance on the same index in government hospitals. There is evidence to reject the research hypothesis that there is no difference between registered nurses and supervisors in government hospitals in the mean performance index score. Therefore, the alternative hypothesis that there are differences between registered nurses' self-ratings of their performance and supervisors' ratings of nurses' performance in government hospitals is accepted.
Table 15

<table>
<thead>
<tr>
<th>Rater</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. nurses</td>
<td>17.0</td>
<td>1.9</td>
<td>604</td>
<td>3.95</td>
<td>.000*</td>
</tr>
<tr>
<td>Supervisors</td>
<td>16.3</td>
<td>2.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

Individual Item Tests

As can be seen from Table 16, the mean of the registered nurses' self-ratings on each performance item was higher than the mean of the supervisors' ratings of nurses' performance on each performance item with the exception of one item (the observance of rest lunch periods). Mean differences between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance on each performance item were found to be significant at .05 alpha level, with the exception of four performance items: (1) technical competence ($p = .426$), (2) observance of rest and lunch periods ($p = .437$), (3) adaptability in emergencies ($p = .201$), and (4) dependability ($p = .564$). The associated research hypothesis with each of the remaining performance items was rejected at the alpha level .05 (see Table 16). Therefore, the associated alternative hypothesis item was retained.
Table 16

t-Test for Differences in the Mean Scores of Each Individual Item Scores Between Registered Nurses and Supervisors for All Government Hospitals Combined

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses</th>
<th>Supervisors</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.4 2.7</td>
<td>16.2 2.9</td>
<td>474</td>
<td>0.8</td>
<td>.426</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.7 2.8</td>
<td>16.6 2.9</td>
<td>474</td>
<td>3.9</td>
<td>.000*</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>16.9 2.6</td>
<td>15.9 2.9</td>
<td>474</td>
<td>4.0</td>
<td>.000*</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.1 2.8</td>
<td>16.4 2.7</td>
<td>474</td>
<td>2.7</td>
<td>.006*</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>17.9 2.6</td>
<td>16.9 2.9</td>
<td>474</td>
<td>4.1</td>
<td>.000*</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.5 4.0</td>
<td>16.7 3.0</td>
<td>474</td>
<td>-.78</td>
<td>.437</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.2 2.4</td>
<td>16.5 2.8</td>
<td>474</td>
<td>2.8</td>
<td>.004*</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.4 2.6</td>
<td>16.6 2.7</td>
<td>474</td>
<td>3.2</td>
<td>.001*</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.7 2.9</td>
<td>16.4 2.9</td>
<td>474</td>
<td>1.2</td>
<td>.201</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.6 2.5</td>
<td>15.8 3.1</td>
<td>474</td>
<td>3.0</td>
<td>.003*</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.2 4.1</td>
<td>15.0 3.2</td>
<td>474</td>
<td>.58</td>
<td>.564</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>17.3 3.1</td>
<td>16.3 2.9</td>
<td>474</td>
<td>3.8</td>
<td>.000*</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>17.2 2.8</td>
<td>16.4 2.7</td>
<td>474</td>
<td>3.1</td>
<td>.002*</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.6 2.7</td>
<td>16.5 2.7</td>
<td>474</td>
<td>4.1</td>
<td>.000*</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>17.9 2.7</td>
<td>16.6 3.0</td>
<td>474</td>
<td>4.9</td>
<td>.000*</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.9 2.9</td>
<td>16.1 2.9</td>
<td>474</td>
<td>2.8</td>
<td>.005*</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.6 2.5</td>
<td>16.8 2.7</td>
<td>474</td>
<td>3.6</td>
<td>.000*</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.1 2.7</td>
<td>16.3 3.1</td>
<td>474</td>
<td>3.0</td>
<td>.006*</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.
Hypothesis 2.2

There are no differences between registered nurses' self-ratings and patients' ratings on the total performance index scores and individual performance item scores for all government hospitals combined.

Overall Test

Table 17 shows that the mean of the registered nurses' self-rating on the total performance index scores was greater than the mean of patients' ratings in government hospitals. Mean differences between registered nurses' self-ratings and patients' ratings on the total performance index scores were significant at alpha .05. For alpha level .003, there is evidence to reject the research hypothesis and support for the alternative hypothesis that there are differences between the nurses' self-ratings and patients' ratings of registered nurses' performance in government hospitals.

Individual Item Tests

As can be seen from Table 18, the mean of the registered nurses' self-ratings on each performance item was higher than the mean of the patients' ratings of registered nurses' performance for 13 of the performance items. The excepted five items were technical competence, observance of rest and lunch periods, dependability, effort applied, and making a high impression on visitors.
Table 17

<table>
<thead>
<tr>
<th>Rater</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>238</td>
<td>17.0</td>
<td>1.9</td>
<td>436</td>
<td>2.99</td>
<td>.003*</td>
</tr>
<tr>
<td>Patients</td>
<td>200</td>
<td>16.3</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

Mean differences between registered nurses and patients in rating nurses' performance on the individual performance items were found to be significant at alpha .05 level with the exception of seven items: (1) technical competence ($p = .092$), (2) ability to organize work loads ($p = .321$), (3) acceptability of completed work ($p = .226$), (4) amount of work performed ($p = .158$), (5) dependability ($p = .875$), (6) making a high impression on visitors ($p = .068$), and (7) personal appearance ($p = .650$). The associated research
Table 10

t-Test for Differences in the Mean Scores of Each Individual Items Scores Between Registered Nurses and Patients for All Government Hospitals Combined

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>#1 Technical competence</td>
<td>16.4</td>
<td>2.7</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.7</td>
<td>2.8</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>16.9</td>
<td>2.6</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.1</td>
<td>2.8</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>17.9</td>
<td>2.6</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.5</td>
<td>4.0</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.2</td>
<td>2.4</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.4</td>
<td>2.6</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.7</td>
<td>2.9</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.6</td>
<td>2.5</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.2</td>
<td>4.1</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>17.3</td>
<td>3.1</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>17.2</td>
<td>2.8</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.6</td>
<td>2.7</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>17.9</td>
<td>2.7</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.9</td>
<td>2.9</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.6</td>
<td>2.5</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.1</td>
<td>2.7</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
Table 19

t-Test for Differences in the Mean Scores of the Total Performance Index Scores Between Registered Nurses and Supervisors for All Private Hospitals Combined

<table>
<thead>
<tr>
<th>Rater</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>65</td>
<td>17.4</td>
<td>1.6</td>
<td>128</td>
<td>4.03</td>
<td>.000*</td>
</tr>
<tr>
<td>Supervisors</td>
<td>65</td>
<td>15.8</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

alternative hypothesis that there are differences between the nurses' self-ratings and supervisors' ratings of registered nurses within private hospitals.

Therefore, the alternative hypothesis that there are mean differences between registered nurses' self-ratings and supervisors' ratings of registered nurses on the total performance index scores in private hospitals was retained.

**Individual Item Tests**

As can be seen in Table 20, the mean of the registered nurses' self-ratings on each individual performance item was higher than the mean of the supervisors' ratings on individual performance item scores for all private hospitals. Mean differences between nurses and supervisors on individual performance item scores were found to be significant at alpha level .05 with the exception of two items: (1) technical competence (p = .248) and (2) observance of rest and
lunch periods (p = .479). The associated research hypothesis with each of the rest of the performance items was rejected at alpha level .05. Therefore, the alternative associated hypotheses with individual performance items were retained. Thus, it can be concluded that there are significant differences between registered nurses and supervisors in rating nurses' performance on each of the individual performance items in private hospitals (see Table 20).

Hypothesis 2.4

There are no differences between registered nurses' self-rating and patients' ratings on the total performance index scores and individual performance item scores for all private hospitals combined.

Overall Test

As can be observed from Table 21, the mean of registered nurses' self-ratings on the total performance index scores was greater than the mean of supervisors' ratings of registered nurses' performance on the total performance index scores for all private hospitals combined.

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses Mean</th>
<th>SD</th>
<th>Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.6</td>
<td>2.5</td>
<td>16</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.8</td>
<td>2.3</td>
<td>16</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>17.3</td>
<td>2.5</td>
<td>16</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.8</td>
<td>2.0</td>
<td>16</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>18.2</td>
<td>2.2</td>
<td>16</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>17.2</td>
<td>3.2</td>
<td>16</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.7</td>
<td>2.2</td>
<td>16</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.9</td>
<td>1.9</td>
<td>16</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>17.1</td>
<td>2.6</td>
<td>16</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.5</td>
<td>3.2</td>
<td>16</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>16.6</td>
<td>3.0</td>
<td>16</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>18.0</td>
<td>2.3</td>
<td>16</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>18.0</td>
<td>2.3</td>
<td>16</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.8</td>
<td>2.1</td>
<td>16</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>18.1</td>
<td>2.2</td>
<td>16</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.8</td>
<td>2.5</td>
<td>16</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.8</td>
<td>2.1</td>
<td>16</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.3</td>
<td>2.1</td>
<td>16</td>
</tr>
</tbody>
</table>
Table 21

$t$-Test for Differences in the Mean Scores of the Total Performance Index Scores Between Registered Nurses and Patients for All Private Hospitals Combined

<table>
<thead>
<tr>
<th>Rater</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>65</td>
<td>17.4</td>
<td>1.6</td>
<td></td>
<td>1.56</td>
<td>.120</td>
</tr>
<tr>
<td>Patients</td>
<td>200</td>
<td>16.9</td>
<td>2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean differences between registered nurses' self-rating and patients' ratings on the total performance index scores was found to be not significant at alpha .05. For .05 alpha level, the probability value of .120 is evidence to fail to reject the research hypothesis and therefore, to support the research hypothesis that there is no significant difference between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance on the total performance index scores for all private hospitals combined.

**Individual Item Tests**

The results of $t$-tests are presented in Table 22. The mean of registered nurses' self-ratings on each individual performance item score was higher than the mean of patients' ratings of nurses' performance, with the exception of four items (technical competence, observance of rest and lunch periods, quality of work, and making a
Mean differences between registered nurses' self-ratings and patients' ratings of registered nurses' performance on individual performance item scores were found to be significant at alpha level .05 for only six of individual performance items. These individual items were acceptability of completed work, amount of work performed, completion of work on schedule, willingness to perform duties, observance of rules and regulations, and accepting responsibility for own behavior. The associated research hypothesis with each of the six performance items was retained. Thus, there are significant differences between registered nurses and supervisors in rating nurses' performance in each of these six performance items. The research hypotheses associated with each of the rest of the performance items were not significant at alpha .05 (see Table 22).

Summary of the Second Hypothesis

The t-tests for mean differences in ratings nurses' performance was discussed controlling statistically for the type of hospital. t-tests yield significant differences between raters when controlling for hospital type with the exception of the differences between registered nurses and patients on the total performance index scores within private hospitals. This allowed an examination of the
Table 22

t-Test for Differences in the Mean Scores of Each Individual Item Scores Between Registered Nurses and Patients for All Private Hospitals Combined

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>R. Nurses Mean</th>
<th>SD</th>
<th>Patients Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.6</td>
<td>2.5</td>
<td>16.7</td>
<td>3.2</td>
<td>263</td>
<td>-.34</td>
<td>.736</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.8</td>
<td>2.3</td>
<td>16.5</td>
<td>3.2</td>
<td>263</td>
<td>.57</td>
<td>.570</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>17.3</td>
<td>2.5</td>
<td>16.5</td>
<td>3.6</td>
<td>263</td>
<td>1.57</td>
<td>.117</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.8</td>
<td>2.0</td>
<td>16.8</td>
<td>2.9</td>
<td>263</td>
<td>2.57</td>
<td>.011*</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>18.2</td>
<td>2.2</td>
<td>17.8</td>
<td>3.1</td>
<td>263</td>
<td>1.05</td>
<td>.289</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>17.2</td>
<td>3.2</td>
<td>17.8</td>
<td>3.1</td>
<td>263</td>
<td>-1.3</td>
<td>.194</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.7</td>
<td>2.2</td>
<td>16.8</td>
<td>3.3</td>
<td>263</td>
<td>2.01</td>
<td>.045*</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.9</td>
<td>1.9</td>
<td>16.7</td>
<td>3.4</td>
<td>263</td>
<td>2.57</td>
<td>.011*</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>17.1</td>
<td>2.6</td>
<td>16.8</td>
<td>3.5</td>
<td>263</td>
<td>.45</td>
<td>.650</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.5</td>
<td>3.2</td>
<td>16.6</td>
<td>3.5</td>
<td>263</td>
<td>-.27</td>
<td>.790</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>16.6</td>
<td>3.0</td>
<td>15.5</td>
<td>4.4</td>
<td>263</td>
<td>1.88</td>
<td>.061</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>18.0</td>
<td>2.3</td>
<td>16.7</td>
<td>3.7</td>
<td>263</td>
<td>2.76</td>
<td>.006*</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>18.0</td>
<td>2.3</td>
<td>17.0</td>
<td>3.6</td>
<td>263</td>
<td>2.45</td>
<td>.015*</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.8</td>
<td>2.1</td>
<td>17.4</td>
<td>2.7</td>
<td>263</td>
<td>1.22</td>
<td>.222</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>18.1</td>
<td>2.2</td>
<td>16.8</td>
<td>3.5</td>
<td>263</td>
<td>2.82</td>
<td>.005*</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.8</td>
<td>2.5</td>
<td>17.3</td>
<td>3.6</td>
<td>263</td>
<td>-.99</td>
<td>.323</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.8</td>
<td>2.1</td>
<td>17.8</td>
<td>2.8</td>
<td>263</td>
<td>.06</td>
<td>.955</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.3</td>
<td>2.1</td>
<td>17.3</td>
<td>3.3</td>
<td>263</td>
<td>.06</td>
<td>.953</td>
</tr>
</tbody>
</table>

* Significant at .05 level.
differences between raters controlling statistically for the type of hospital. The lack of convergence between nurses, supervisors, and patients can be explained by egocentric bias argument by Harris and Schaubroeck (1988). Egocentric bias refers to the underlying idea that self-ratings are biased in some fashion (e.g., defensiveness) and self-raters attribute good performance to their own behavior and poor performance to the rater's disposition (Jones & Nisbett, 1972). On the other hand, observers of the performance (e.g., supervisors and patients) attribute good performance to environmental factors and poor performance to the actors' dispositions.

Observational opportunities offer another explanation for the lack of convergence between nurses, supervisors, and patients. For example, it is assumed that patients have more opportunities to observe nurses at more revealing times than do supervisors. This explanation implies that supervisors disagree with nurses and with patients because they have fewer opportunities to observe the nurses' performance.

Differences between raters at the same level can be explained by differences in the type of hospital. The majority of private hospitals are relatively small hospitals in terms of number of beds, employees, medical staff, and registered nurses, whereas the majority of government hospitals are relatively larger than private hospitals in number of employees, medical staff, beds, and registered nurses.

A more detailed examination of the differences between raters supports these explanations. Overall and individual item tests of
the mean score differences between raters in government hospitals and in private hospitals was found to be significant. Within government and within private hospitals raters differ in their evaluation of registered nurses' performance. Different rates were given to different performance items by registered nurses, supervisors, and patients. In both government and private hospitals registered nurses rated their attendance and promptness the highest, followed by accepting responsibility for own behavior and personal appearance. Dependability and technical competence were rated the lowest by registered nurses.

It can be concluded that registered nurses emphasized two major parts in their performance: the first deals with patient services or attendance, and the second deals with the professional and organizational requirement (e.g., accepting responsibility). Registered nurses had to balance between pure organizational and services tasks, and they have to fulfill the expectations of two parties (supervisors and patients). On the other hand, the supervisors' main emphasis in their ratings was the bureaucratic aspects of performance. For instance, the highest performance items rated by supervisors were attendance and promptness, personal appearance, and observance of rest and lunch periods with different order for each hospital type. Finally, patients in government hospitals placed more emphasis on the registered nurses' personal appearance, observance of rest and lunch periods, and attendance and promptness. In private hospitals patients' highest rated items were
attendance and promptness, observance of rest and lunch periods, and personal appearance. Patients gave dependability and quality of work the lowest scores.

Combined as Well as Separate Performance Ratings of Registered Nurses, Supervisors, and Patients Between Government and Private Hospitals

In this section t-tests for mean differences in the total performance scores as well as individual performance item scores between government and private hospitals were computed for combined as well as individual ratings of registered nurses, supervisors, and patients.

**Hypothesis 3.1**

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all raters combined.

**Overall Test**

As can be seen from Table 23, the mean of government hospitals on the total performance index scores was lower than the mean of private hospitals on the performance index score scores. The mean differences between government hospitals and private hospitals on the total performance index scores were found to be not significant at alpha .05 level. The research hypothesis that there is no difference between the mean of government and private hospitals on the total
performance index scores was not rejected at alpha level .05. Therefore, the alternative hypothesis that there is a significant mean difference between government and private hospitals was rejected.

Table 23

t-Test for Differences in the Mean Scores of Total Performance Index Scores Between Government and Private Hospitals for All Raters Combined

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Hospitals</td>
<td>676</td>
<td>16.6</td>
<td>2.2</td>
<td>1004</td>
<td>-1.65</td>
<td>.100</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>330</td>
<td>16.8</td>
<td>2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Individual Item Tests

As can be seen from Table 24, the mean of government hospitals on the individual performance item scores lower than private
Table 24

t-Test for Differences in the Mean Scores of Each Individual Item Scores Between Government and Private Hospitals for All Raters Combined

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>Government</th>
<th>Private Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>#1 Technical competence</td>
<td>16.5 2.9</td>
<td>16.6 3.0</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.2 3.2</td>
<td>16.3 3.0</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>16.3 3.4</td>
<td>16.5 3.4</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>16.8 3.0</td>
<td>16.8 2.8</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>17.3 2.2</td>
<td>17.7 2.9</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.9 3.5</td>
<td>17.5 3.1</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>16.8 2.5</td>
<td>16.9 3.1</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>16.7 3.2</td>
<td>16.9 3.1</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.3 3.4</td>
<td>16.6 3.4</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.0 3.4</td>
<td>16.3 3.5</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.1 4.0</td>
<td>16.4 4.1</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>16.6 3.5</td>
<td>16.8 3.4</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>16.6 3.3</td>
<td>17.0 3.0</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>16.8 3.3</td>
<td>17.2 2.8</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>16.8 3.7</td>
<td>16.9 3.4</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.4 3.6</td>
<td>16.8 3.4</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.3 2.8</td>
<td>17.5 2.8</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>16.6 3.3</td>
<td>17.0 3.2</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
hospitals on each of the performance items for all raters combined. The mean difference between government and private hospitals was found to be not significant at alpha .05 with the exception of two of the performance items (observance of rest and lunch periods and skill in communications). The null hypotheses associated with each of the individual performance item scores were not rejected at .05. Therefore, the alternative research hypothesis, that there are significant differences between government hospitals, and private hospitals, was retained (see Table 24).

Hypothesis 3.2

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all registered nurses combined.

Overall Test

As can be observed from Table 25, the mean score for government hospitals was lower than the mean score for private hospitals for all registered nurses' self-ratings on the total performance index scores. The mean difference between government hospitals and private hospitals in registered nurses' self-ratings was found to be not significant at alpha level .05. The research hypothesis that there are no differences between government hospitals and private hospitals in registered nurses' self-ratings was not rejected at alpha level .05. Therefore, the alternative hypothesis that there are
differences between government and private hospitals in registered nurses’ self-ratings performance was retained.

Table 25

<table>
<thead>
<tr>
<th>Table 25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>t-Test for Differences in the Mean Scores of the Nurses’ Self-Ratings Total Performance Index Scores Between Government and Private Hospitals</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Hospitals</td>
<td>238</td>
<td>17.0</td>
<td>1.6</td>
<td>301</td>
<td>-1.52</td>
<td>.128</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>65</td>
<td>17.4</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Individual Item Tests**

As can be seen from Table 26, the mean score for government hospitals was lower than the mean score for private hospitals in the registered nurses’ self-rating on each of the performance items with the exception of five items (skills in planning care, attendance and promptness, accepting responsibility for own behavior, willingness to perform duties, and personal appearance).

The mean differences between government hospitals and private hospitals were found to be not significant at alpha level .05 with the exception of three performance items (ability to organize and schedule work loads, dependability, and observance of rules and regulations). The research hypothesis that there are no differences between government hospitals and private hospitals for the rest of the performance items was not rejected at alpha level .05.
Therefore, the alternative hypothesis associated with each each of the performance items was rejected (see Table 26).

As can be seen from Figure 4, one can conclude that the ratings of registered nurses by all raters in private hospitals was greater than in government hospitals. Also, it appears clearly that all raters rated lowest the item on dependability (item #11). Moreover, a large gap between private and government hospitals can be seen in some of the items as well as a convergence in some other items.

\[ \text{Figure 4. Mean Comparison Between Government and Private Hospitals in the Ratings of Registered Nurses Performance by All Raters Combined.} \]
Table 26

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>Government</th>
<th></th>
<th>Private Hospitals</th>
<th></th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.4 2.7</td>
<td>16.6 2.5</td>
<td>301</td>
<td>-.48</td>
<td>.631</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.7 2.8</td>
<td>16.8 2.3</td>
<td>301</td>
<td>-.25</td>
<td>.008*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>16.9 2.6</td>
<td>16.8 2.5</td>
<td>301</td>
<td>1.05</td>
<td>.297</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.1 2.8</td>
<td>17.3 2.0</td>
<td>301</td>
<td>-1.8</td>
<td>.071</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>17.9 2.6</td>
<td>17.8 2.2</td>
<td>301</td>
<td>0.83</td>
<td>.410</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.5 4.0</td>
<td>18.2 3.2</td>
<td>301</td>
<td>-1.3</td>
<td>.185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>17.2 2.4</td>
<td>17.2 2.2</td>
<td>301</td>
<td>1.54</td>
<td>.125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>17.4 2.6</td>
<td>17.7 1.9</td>
<td>301</td>
<td>-1.5</td>
<td>.126</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.7 2.9</td>
<td>17.9 2.5</td>
<td>301</td>
<td>-.83</td>
<td>.374</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>16.6 2.5</td>
<td>17.1 3.2</td>
<td>301</td>
<td>-.41</td>
<td>.684</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.2 4.1</td>
<td>16.5 3.0</td>
<td>301</td>
<td>-2.5</td>
<td>.012*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>17.3 3.1</td>
<td>16.6 2.3</td>
<td>301</td>
<td>1.68</td>
<td>.094</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>17.2 2.8</td>
<td>18.0 2.3</td>
<td>301</td>
<td>-2.0</td>
<td>.038*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>17.6 2.7</td>
<td>18.0 2.1</td>
<td>301</td>
<td>-.62</td>
<td>.535</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>17.9 2.7</td>
<td>17.8 2.2</td>
<td>301</td>
<td>0.60</td>
<td>.552</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.9 2.9</td>
<td>18.1 2.5</td>
<td>301</td>
<td>-.33</td>
<td>.743</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.6 2.5</td>
<td>16.8 2.0</td>
<td>301</td>
<td>.45</td>
<td>.655</td>
<td></td>
<td></td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>17.1 2.7</td>
<td>17.8 2.1</td>
<td>301</td>
<td>-.56</td>
<td>.578</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
Hypothesis 3.3

There are no differences between government and private hospitals on the total performance index scores and individual performance item scores for all supervisors combined.

Overall Test

As can be observed from Table 27, the mean score for government hospitals was higher than the mean for private hospitals for all supervisors' ratings on the total performance index scores of registered nurses' performance. The mean differences between government and private hospitals in supervisors' ratings of registered nurses' performance on the total performance index scores was found to be not significant at alpha .05 level. The research hypothesis that there are no differences between government hospitals and private hospitals in supervisors' ratings of registered nurses was not rejected, and the alternative hypothesis that there are significant differences in the mean of the total performance index scores between supervisors ratings in government hospitals and in private hospitals was rejected.
Table 27

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Hospitals</td>
<td>238</td>
<td>16.3</td>
<td>2.1</td>
<td>301</td>
<td>-1.35</td>
<td>.177</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>65</td>
<td>15.8</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Individual Item Tests

As can be seen from Table 28, the mean score for government hospitals was higher than the mean score for private hospitals in supervisors' ratings of registered nurses' performance on individual performance item scores, with the exception of one performance item (observance of rest and lunch periods). The mean difference between government and private hospitals on individual performance item scores of the supervisors' ratings of registered nurses' performance was found to be significant at alpha level .05 for only one item (adaptability in emergencies). The research hypothesis associated with each performance item failed to be rejected, and therefore the alternative hypothesis associated with each of the performance items was rejected.
Table 28

t-Test for Differences in the Mean Scores of Individual Performance Item Scores of Supervisors' Ratings Between Government and Private Hospitals

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>Government</th>
<th>Private Hospitals</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.2 2.6</td>
<td>16.0 3.0</td>
<td>301</td>
<td>-.48</td>
<td>.621</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>15.6 2.9</td>
<td>15.3 3.2</td>
<td>301</td>
<td>-.86</td>
<td>.389</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>15.9 2.9</td>
<td>15.4 3.2</td>
<td>301</td>
<td>-1.1</td>
<td>.253</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>16.4 2.7</td>
<td>16.0 2.0</td>
<td>301</td>
<td>-1.0</td>
<td>.289</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>16.9 2.9</td>
<td>16.7 2.7</td>
<td>301</td>
<td>-.51</td>
<td>.612</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.7 3.0</td>
<td>16.8 2.9</td>
<td>301</td>
<td>.21</td>
<td>.833</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>16.5 2.8</td>
<td>16.4 3.0</td>
<td>301</td>
<td>-.12</td>
<td>.902</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>16.6 2.7</td>
<td>16.2 3.1</td>
<td>301</td>
<td>-.98</td>
<td>.326</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>16.4 2.9</td>
<td>15.4 3.4</td>
<td>301</td>
<td>-2.2</td>
<td>.025*</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>15.8 3.1</td>
<td>15.8 3.4</td>
<td>301</td>
<td>-1.5</td>
<td>.124</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.0 3.2</td>
<td>14.2 3.6</td>
<td>301</td>
<td>-1.6</td>
<td>.099</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>16.3 2.9</td>
<td>16.1 3.2</td>
<td>301</td>
<td>-.46</td>
<td>.646</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>16.4 2.7</td>
<td>16.1 3.1</td>
<td>301</td>
<td>-.76</td>
<td>.448</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>16.5 2.7</td>
<td>15.9 3.4</td>
<td>301</td>
<td>1.48</td>
<td>.140</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>16.6 3.0</td>
<td>16.0 3.7</td>
<td>301</td>
<td>-1.4</td>
<td>.151</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.1 2.9</td>
<td>15.3 3.2</td>
<td>301</td>
<td>-1.8</td>
<td>.060</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>16.8 2.7</td>
<td>16.3 3.4</td>
<td>301</td>
<td>-0.6</td>
<td>.543</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>16.3 3.1</td>
<td>15.8 3.5</td>
<td>301</td>
<td>-1.5</td>
<td>.248</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
Hypothesis 3.4

There are no differences between government and private hospitals on the total performance index scores and individual performance index scores for all patients combined.

Overall Test

As can be seen from Table 29, the mean score for government hospitals was lower than the mean scores for private hospitals on patients' ratings on the total performance index scores. The mean difference between government and private hospitals in patients' ratings of registered nurses' performance was found to be significant at alpha .05 level. The research hypothesis that there is no difference between government and private hospitals in the patients' ratings of registered nurses on the mean performance index score was rejected at alpha .05.

Table 29

t-Test for Differences in the Mean Scores of the Total Performance Index Scores of Patients' Ratings Between Government and Private Hospitals

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Hospitals</td>
<td>200</td>
<td>16.3</td>
<td>2.7</td>
<td>398</td>
<td>-2.30</td>
<td>.022*</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>200</td>
<td>16.9</td>
<td>2.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level

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Individual Item Tests

As can be seen from Table 30, the mean score for government hospitals was lower than the mean scores for private hospitals in patients' ratings of registered nurses' performance on individual performance item scores, with the exception of five performance items (technical competence, skills in planning nursing care, acceptability of completed work, amount of work performed, and skill in communications). The mean differences between government and private hospitals in patients' ratings of registered nurses' performance on eight performance items was found to be significant at alpha level .05 (see Table 30). The null hypothesis associated with each of the eight of the performance items was rejected. The null hypothesis associated with each of rest of the performance items was not rejected at alpha .05.

Ranking of Individual Performance Items by All Raters Within Government and Private Hospitals

In this section a comparison of three ratings of nurses, supervisors, and patients within government and private hospitals is presented. For example, registered nurses' self-ratings for all government hospitals were compared with registered nurses' self-ratings for all private hospitals, and the same was done for supervisors' and patients' ratings.
Table 30

_t-Test for Differences in the Mean Scores of Each Performance Item Scores of Patients' Ratings Between Government and Private Hospitals_

<table>
<thead>
<tr>
<th>Performance Items</th>
<th>Government</th>
<th>Private</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Technical competence</td>
<td>16.9 3.4</td>
<td>16.7 3.2</td>
<td>398</td>
<td>-.51</td>
<td>.613</td>
</tr>
<tr>
<td>#2 Ability to organize work loads</td>
<td>16.4 3.7</td>
<td>16.5 3.2</td>
<td>398</td>
<td>-.47</td>
<td>.638</td>
</tr>
<tr>
<td>#3 Skills in planning nursing care</td>
<td>16.8 3.5</td>
<td>16.5 3.6</td>
<td>398</td>
<td>1.23</td>
<td>.218</td>
</tr>
<tr>
<td>#4 Acceptability of completed work</td>
<td>17.0 4.1</td>
<td>16.8 2.9</td>
<td>398</td>
<td>-.12</td>
<td>.904</td>
</tr>
<tr>
<td>#5 Attendance and promptness</td>
<td>17.5 3.4</td>
<td>17.8 3.1</td>
<td>398</td>
<td>2.9</td>
<td>.025*</td>
</tr>
<tr>
<td>#6 Observance of rest periods</td>
<td>16.5 4.0</td>
<td>17.8 3.1</td>
<td>398</td>
<td>-.83</td>
<td>.405</td>
</tr>
<tr>
<td>#7 Amount of work performed</td>
<td>16.8 3.5</td>
<td>16.8 3.3</td>
<td>398</td>
<td>.09</td>
<td>.931</td>
</tr>
<tr>
<td>#8 Completion of work on schedule</td>
<td>16.2 4.3</td>
<td>16.7 3.4</td>
<td>398</td>
<td>1.3</td>
<td>.172</td>
</tr>
<tr>
<td>#9 Adaptability in emergencies</td>
<td>15.9 4.3</td>
<td>16.8 3.5</td>
<td>398</td>
<td>2.3</td>
<td>.017*</td>
</tr>
<tr>
<td>#10 Quality of work</td>
<td>15.4 4.4</td>
<td>16.6 3.5</td>
<td>398</td>
<td>2.9</td>
<td>.003*</td>
</tr>
<tr>
<td>#11 Dependability</td>
<td>15.2 4.8</td>
<td>15.5 4.4</td>
<td>398</td>
<td>-.45</td>
<td>.650</td>
</tr>
<tr>
<td>#12 Willingness to perform duties</td>
<td>16.0 4.3</td>
<td>16.7 3.7</td>
<td>398</td>
<td>1.6</td>
<td>.096</td>
</tr>
<tr>
<td>#13 Observance of rules</td>
<td>16.2 4.3</td>
<td>17.0 3.1</td>
<td>398</td>
<td>1.9</td>
<td>.048*</td>
</tr>
<tr>
<td>#14 Effort applied</td>
<td>16.3 4.3</td>
<td>17.4 2.7</td>
<td>398</td>
<td>2.9</td>
<td>.003*</td>
</tr>
<tr>
<td>#15 Accepting responsibility</td>
<td>15.7 4.9</td>
<td>16.8 3.5</td>
<td>398</td>
<td>2.6</td>
<td>.008*</td>
</tr>
<tr>
<td>#16 Making a high impression</td>
<td>16.2 4.7</td>
<td>17.3 3.6</td>
<td>398</td>
<td>2.4</td>
<td>.016*</td>
</tr>
<tr>
<td>#17 Personal appearance</td>
<td>17.5 3.1</td>
<td>17.8 2.8</td>
<td>398</td>
<td>1.85</td>
<td>.393</td>
</tr>
<tr>
<td>#18 Skill in communications</td>
<td>16.3 4.0</td>
<td>17.3 3.3</td>
<td>398</td>
<td>2.7</td>
<td>.006*</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
Dependability was rated by all raters at the same level as the lowest performance aspect. There were similarities between nurses' and supervisors' ratings of registered nurses' performance within government and private hospitals. There were differences between patients' ratings of registered nurses' performance within government and private hospitals. Differences between patients can be explained by the demographic differences between patients. The majority of patients in government hospitals were government employees, low income people, whereas patients in private hospitals were private sector employees, high income people, and more educated people. For instance, two items out of three were rated as lowest items by registered nurses in government and private hospitals. One item out of three items was rated highest by registered nurses. Two items out of three were rated the lowest by supervisors within government and private hospitals. One item out of three was rated highest by supervisors. Only one item was rated by all patients as the lowest performance item, and no there was agreement between patients on the highest items. In this study overall effectiveness was used as a measure for overall performance. Raters at the same level rated the registered nurses overall effectiveness differently. (see Table 31.)

Summary of the Third Hypothesis

This section reports the results of t-tests for the differences between the type of hospital controlling statistically for the type of raters. This allowed an examination of differences between
hospitals for the same rater. There were significant differences between government and private hospitals for patients' ratings of registered nurses' performance. No significant differences were found between government and private hospitals for the ratings made by all raters combined, nurses' self-ratings, and supervisors.

Similarities were found between raters (nurses' self-rating and supervisors' ratings) on the individual performance items at the same hospital level. Similarities between raters in rating registered nurses' performance at the same hospital level can be explained by the argument made by Borman (1974), Klimoski and London (1974), Landy et al. (1976), and Zammuto et al. (1982) that raters on the same level would provide similar ratings.

Registered nurses in government hospitals placed the highest emphases on attendance and promptness, accepting responsibility for own behavior, effort applied, and personal appearance; whereas in private hospitals registered nurses placed the highest emphases on observance of rest and lunch periods, effort applied, observance of rules and regulations, and adaptability in emergencies.
Table 31
Ranking of Mean Scores of All Raters Within Government and Private Hospitals

<table>
<thead>
<tr>
<th>Government Hospitals</th>
<th>Private Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses</td>
<td>Supervisors</td>
</tr>
<tr>
<td># Mean</td>
<td># Mean</td>
</tr>
<tr>
<td>V11 15.2</td>
<td>V11 15.0</td>
</tr>
<tr>
<td>V2 16.4</td>
<td>V10 15.6</td>
</tr>
<tr>
<td>V10 16.5</td>
<td>V15 15.8</td>
</tr>
<tr>
<td>V3 16.6</td>
<td>V9 15.9</td>
</tr>
<tr>
<td>V16 16.72</td>
<td>V12 16.1</td>
</tr>
<tr>
<td>V1 16.74</td>
<td>V3 16.2</td>
</tr>
<tr>
<td>V12 16.8</td>
<td>V8 16.31</td>
</tr>
<tr>
<td>V9 16.95</td>
<td>V16 16.40</td>
</tr>
<tr>
<td>V4 17.1</td>
<td>V14 16.46</td>
</tr>
<tr>
<td>V7 17.3</td>
<td>V18 16.54</td>
</tr>
<tr>
<td>V14 17.4</td>
<td>V2 16.57</td>
</tr>
<tr>
<td>V19 17.5</td>
<td>V4 16.60</td>
</tr>
<tr>
<td>V8 17.6</td>
<td>V7 16.62</td>
</tr>
<tr>
<td>V15 17.62</td>
<td>V1 16.64</td>
</tr>
<tr>
<td>V6 17.64</td>
<td>V5 16.77</td>
</tr>
<tr>
<td>V17 17.9</td>
<td>V6 16.80</td>
</tr>
</tbody>
</table>

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The following performance items were rated the highest items by supervisors in government hospitals: attendance and promptness, personal appearance, and observance of rest and lunch periods. On the other hand, supervisors in private hospitals placed the highest rating to the following performance items: observance of rest and lunch periods, attendance and promptness, and willingness to perform duties. Supervisors shared the same concern about registered nurses' performance, where they emphasized the bureaucracy aspect of performance.

Patients in government hospitals placed the highest emphasis on the following performance items: attendance and promptness, personal appearance, and acceptability of completed work; whereas in private hospitals patient placed the highest emphasis on attendance and promptness, observance of rest and lunch periods, and personal appearance.

Comparisons Between Raters Within Each Hospital

In this section the results of t-tests for the mean differences on the total performance scores between registered nurses vs. supervisors and registered nurses vs. patients within each hospital were presented.
Hypothesis 4.1

There are no differences between registered nurses' self-rating and supervisors' ratings on the total performance index scores within each of the participating hospitals.

Overall Test

As can be seen from Table 32, the mean of the registered nurses' self-ratings performance index score was higher than the mean of the supervisors' ratings of registered nurses' performance index score within each hospital. The mean differences between registered nurses' self-ratings, and supervisors' ratings of registered nurses' performance in Alkarak hospital, Alzarka, Jordan University, Alsalet, Alkhledi, and Almal Hospital were found to be significant at alpha level .05. The research hypothesis associated with each of these hospitals that there are no differences between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance was rejected. Therefore, the alternative hypothesis associated with each of these hospitals, that there are significant differences between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance in each hospital was
The null hypothesis associated with each of the rest of the hospitals was not rejected at alpha .05.

Table 32

<table>
<thead>
<tr>
<th>Hospital</th>
<th>R. Nurses</th>
<th>Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>#1 Albasheer</td>
<td>17.3 (1.4)</td>
<td>16.9 (1.7)</td>
</tr>
<tr>
<td>#2 Alkarak</td>
<td>16.7 (.7)</td>
<td>15.8 (.7)</td>
</tr>
<tr>
<td>#3 Alzarka</td>
<td>17.7 (1.5)</td>
<td>16.6 (2.3)</td>
</tr>
<tr>
<td>#4 J.University</td>
<td>16.8 (2.2)</td>
<td>16.0 (2.3)</td>
</tr>
<tr>
<td>#5 Alsalet</td>
<td>16.5 (1.4)</td>
<td>16.0 (1.7)</td>
</tr>
<tr>
<td>#6 Alisami</td>
<td>17.6 (1.9)</td>
<td>16.1 (1.8)</td>
</tr>
<tr>
<td>#7 Alamal</td>
<td>17.1 (1.5)</td>
<td>15.1 (3.2)</td>
</tr>
<tr>
<td>#8 Alkhaledi</td>
<td>17.1 (1.2)</td>
<td>16.2 (1.2)</td>
</tr>
<tr>
<td>#9 M. Hekmah</td>
<td>18.1 (.9)</td>
<td>17.2 (1.3)</td>
</tr>
<tr>
<td>#10 Malhas</td>
<td>18.3 (.7)</td>
<td>17.0 (3.6)</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.
Hypothesis 4.2

There are no differences between registered nurses' self-ratings and patients' ratings on the total performance index scores within each of the participating hospitals.

Overall Test

As can be seen from Table 33, the mean of the registered nurses' self-ratings was higher than the mean of the patients' ratings of registered nurses' performance in each participating hospital with the exception of three hospital (Albasheer, Alsalet, and Alamal hospitals). One hospital (Alkhaledi) had almost equal means for registered nurses' self-ratings and their corresponding supervisors' ratings of nurses' performance. The mean differences between nurses' self-rating and patients' rating on the total performance scores was found to be significant at alpha .05 for three hospitals only. Of the three hospitals with significant differences between nurses' self-ratings and ratings of patients, two are government hospitals (Alzarka and Alsalet) and the third is a private maternity hospital (Alamal). The null hypotheses of no differences between registered nurses' self-ratings and supervisors' ratings of registered nurses' performance which associated with each of the rest of the hospitals was not rejected.

It can be observed that patients' ratings were lower than the nurses' self-ratings and higher than supervisors' ratings of nurses'
performance (Table 33). As can be seen from Figure 5, nurses' self-ratings of their performance were higher than supervisors' and patients' ratings of nurses' performance in each participating hospital. Supervisors' ratings of registered nurses' performance in Alamal Hospital was the lowest rating among hospitals. Patients' ratings of registered nurses' performance in Alzarka Hospital was the lowest rating among hospitals.

Table 33

t-Test for Differences in the Mean Scores on the Total Performance Index Scores of Each Participating Hospital Ratings Between Registered Nurses and Patients

<table>
<thead>
<tr>
<th>Hospital</th>
<th>R. Nurses</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>#1 Albasheer</td>
<td>17.3</td>
<td>1.4</td>
</tr>
<tr>
<td>#2 Alkarak</td>
<td>16.7</td>
<td>1.2</td>
</tr>
<tr>
<td>#3 Alzarka</td>
<td>17.7</td>
<td>3.9</td>
</tr>
<tr>
<td>#4 J.University</td>
<td>16.8</td>
<td>2.2</td>
</tr>
<tr>
<td>#5 Alsalet</td>
<td>16.5</td>
<td>1.3</td>
</tr>
<tr>
<td>#6 Alislam</td>
<td>17.1</td>
<td>2.8</td>
</tr>
<tr>
<td>#7 Alamal</td>
<td>17.1</td>
<td>1.7</td>
</tr>
<tr>
<td>#8 Alkhaledi</td>
<td>17.1</td>
<td>1.5</td>
</tr>
<tr>
<td>#9 M. Hekmah</td>
<td>18.1</td>
<td>2.5</td>
</tr>
<tr>
<td>#10 Malhas</td>
<td>18.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.
Figure 5. Mean Comparison Between Registered Nurses, Supervisors and Patients on the Total Performance Index Scores of Registered Nurses Performance Ratings Within Each Participating Hospital.

Summary of the Fourth Hypothesis

In this section the results of t-tests of the mean differences on the total performance index scores between raters in rating nurses' performance within each participating hospital were presented. The t-test of the mean differences of the performance index scores between registered nurses' and supervisors' ratings of nurses' performance was found to be significant for five hospitals.
At alpha levels 0.05. In each hospital registered nurses' ratings of their performance was higher than supervisors' ratings of registered nurses' performance. Also, the test of the mean differences of the performance index scores between registered nurses' and patients' ratings of nurses' performance was found to be significant for three hospitals (Alzarka, Alislami, and Alamal hospitals) at alpha levels .05. The agreement between nurses and patients in ratings nurses' performance in most of the hospitals can be attributed to the following reasons:

1. Observational opportunities, which were discussed in the summary of the first hypothesis. In sum, patients have more opportunities to observe nurses' performance and therefore agreed with nurses' ratings of their performance. On the other hand, supervisors have little opportunity to observe nurses' performance and therefore disagreed with nurses' ratings of their performance.

2. In government hospitals patients may justify poor performance because of the free services. Patients might reach a conclusion that free services can be reciprocated by rating highly nurses' performance.

3. Patients in private hospitals may have experienced some sort of cognitive dissonance. The conflict between paying high costs and receiving medical treatment and services can be reduced by the patients giving high ratings to nurses' performance to justify the
high costs and to reduce the dissonance.

Combined as Well as Separate Satisfaction Ratings of Registered Nurses, Supervisors, and Patients Between Government and Private Hospitals

In this section Pearson correlation coefficients were computed for the examination of the relationship between total satisfaction scores as well as individual satisfaction items for ratings of registered nurses, supervisors, and patients between government and private hospitals.

Hypothesis 5.1

There are no differences between government and private hospitals on the total satisfaction index scores and on the individual satisfaction item scores for all registered nurses combined.

Overall Test

The mean of the registered nurses' self-ratings within government hospitals on the total satisfaction index score was lower than the mean within private hospitals on the total satisfaction index score. Mean difference of the registered nurses' self-ratings within government and private hospitals on the total satisfaction index scores was found to be significant at .05 alpha level (Table 34).
Table 34

$t$-Test for Differences in the Mean of the Total Satisfaction Index Scores of Registered Nurses Between Government and Private Hospitals

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Hospitals</td>
<td>238</td>
<td>12.3</td>
<td>3.0</td>
<td>301</td>
<td>-3.97</td>
<td>.000*</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>65</td>
<td>13.9</td>
<td>2.5</td>
<td>301</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

Individual Item Tests

As can be seen from Table 35, the mean score for registered nurses' satisfaction in government hospitals on the individual satisfaction item scores was lower than the mean score of private hospitals on the same items. Mean difference between government hospitals, and private hospitals in registered nurses' satisfaction on each satisfaction index item was found to be significant at alpha level .05 with the exception of three items (satisfaction with co-workers, supervisors, and propensity to leave). The research hypothesis that there are no differences between government and private hospitals in each satisfaction item (not including the exceptional items) was rejected and the alternative hypothesis associated with each satisfaction item that there are differences between government and private hospitals in each satisfaction item was retained.
Table 35

**t-Test for Differences in the Mean Scores of Each Satisfaction Item Scores of Registered Nurses Between Government and Private Hospitals**

<table>
<thead>
<tr>
<th>Satisfaction Index</th>
<th>Government</th>
<th>Private Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>11.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Co-workers</td>
<td>15.1</td>
<td>3.7</td>
</tr>
<tr>
<td>Supervisors</td>
<td>14.2</td>
<td>4.8</td>
</tr>
<tr>
<td>Job Security</td>
<td>12.2</td>
<td>5.2</td>
</tr>
<tr>
<td>Promotion</td>
<td>11.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Working Hours</td>
<td>11.9</td>
<td>5.2</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>10.9</td>
<td>5.1</td>
</tr>
<tr>
<td>Benefits</td>
<td>8.9</td>
<td>5.6</td>
</tr>
<tr>
<td>Propensity to Leave</td>
<td>12.3</td>
<td>6.2</td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

**Hypothesis 5.2**

There are no differences between government and private hospitals on the total satisfaction index scores and on the individual satisfaction item scores for all supervisors combined.
Overall Test

The satisfaction index mean score of supervisors in government hospitals was lower than the mean score of supervisors in private hospitals. Mean difference between government and private hospitals in supervisors' satisfaction index scores was found to be not significant at alpha level .05. The research hypothesis was rejected at alpha level 0.166 and therefore, the alternative hypothesis that there are differences between government hospitals and private hospitals in supervisors' satisfaction was rejected (Table 36).

Table 36

<table>
<thead>
<tr>
<th>Type of hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Hospital</td>
<td>238</td>
<td>13.9</td>
<td>2.4</td>
<td>301</td>
<td>-1.39</td>
<td>.166</td>
</tr>
<tr>
<td>Private Hospital</td>
<td>65</td>
<td>14.4</td>
<td>2.4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Individual Item Tests*

The results of t-tests are presented in Table 37. The mean of government hospitals in supervisors' satisfaction on each item was lower than the mean of private hospitals on the same items, with the exception of three items (satisfaction with pay, working hours, and working conditions). Mean difference between government hospitals
and private hospitals in supervisors' satisfaction on each satisfaction index item was found to be significant for three items at alpha level .05. The associated research hypothesis with each satisfaction index item, that there are no differences between government and private hospital in supervisors was rejected.

Hypothesis 5.3

There are no differences between government and private hospitals on the total satisfaction index scores and on individual satisfaction item scores for all patients combined.

Overall Test

The mean of government hospitals on the patients' satisfaction total score was lower than the mean of private hospitals on the same scale. Mean difference between government hospitals and private hospitals on the patients' total satisfaction scale was found to be significant at alpha .05 level. The probability of .002 is evidence to reject the null hypothesis (Table 38).
Table 37

$t$-Test for Differences in the Mean Scores of Each of Satisfaction Item Scores of Supervisors Between Government and Private Hospitals.

<table>
<thead>
<tr>
<th>Satisfaction Index</th>
<th>Government</th>
<th>Private Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Satisfaction with Pay</td>
<td>14.42</td>
<td>4.4</td>
</tr>
<tr>
<td>Co-workers</td>
<td>16.0</td>
<td>2.2</td>
</tr>
<tr>
<td>Supervisors</td>
<td>15.6</td>
<td>2.5</td>
</tr>
<tr>
<td>Job Security</td>
<td>13.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Promotion</td>
<td>13.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Working Hours</td>
<td>14.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>14.05</td>
<td>4.2</td>
</tr>
<tr>
<td>Benefits</td>
<td>10.3</td>
<td>6.5</td>
</tr>
<tr>
<td>Propensity to Leave</td>
<td>11.9</td>
<td>6.0</td>
</tr>
</tbody>
</table>

*Significant at .05 level.
Table 38

t-Test for Differences in the Mean Scores of the Total Satisfaction Index Scores of Patients Between Government and Private Hospitals

<table>
<thead>
<tr>
<th>Type of Hospital</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governmental Hospitals</td>
<td>200</td>
<td>24.3</td>
<td>4.8</td>
<td>398</td>
<td>-6.79</td>
<td>.002*</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>200</td>
<td>27.3</td>
<td>3.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the .05 level.

Individual Item Tests

As can be seen from Table 39, the mean score of government hospitals on individual satisfaction subscales for patients was lower than the mean score on the same subscales in private hospitals. Mean differences between government hospitals and private hospitals on patients' satisfaction for each item was found to be significant at .05 alpha level. Therefore, the null hypothesis associated with each individual item was rejected, and the alternative hypothesis was retained. As can be observed from Figure 6, patients were more satisfied in private hospitals than in government hospitals.
Table 39

**t-Test for Differences in the Mean Scores of Each Satisfaction Item Scores of Patients Between Government and Private Hospitals**

<table>
<thead>
<tr>
<th>Scale Items</th>
<th>Government</th>
<th>Private</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of service you received</td>
<td>3.0</td>
<td>3.4</td>
<td>.7</td>
<td>.6</td>
<td>398</td>
<td>-5.7</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did you get the kind of service you wanted?</td>
<td>3.0</td>
<td>3.2</td>
<td>.7</td>
<td>.6</td>
<td>398</td>
<td>-3.5</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To what extent has the service met your needs?</td>
<td>3.0</td>
<td>3.4</td>
<td>.7</td>
<td>.6</td>
<td>398</td>
<td>-5.5</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommending this hospital to someone</td>
<td>2.9</td>
<td>3.4</td>
<td>.8</td>
<td>.7</td>
<td>398</td>
<td>-6.4</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How satisfied have you been with the help?</td>
<td>3.0</td>
<td>3.4</td>
<td>.8</td>
<td>.7</td>
<td>398</td>
<td>-3.9</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have the services helped you?</td>
<td>3.2</td>
<td>3.4</td>
<td>.7</td>
<td>.5</td>
<td>398</td>
<td>-3.9</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would you come back here?</td>
<td>3.0</td>
<td>3.4</td>
<td>.9</td>
<td>.7</td>
<td>398</td>
<td>-4.1</td>
<td>.000*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

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Figure 6. Comparison in Patients' Satisfaction Between Government and Private Hospitals

Satisfaction With Other Services

As can be seen from Table 40, the mean of private hospitals was higher than the mean of government hospitals on all other services, with the exception of one item (satisfaction with cost). The mean differences between government hospitals and private hospitals were significant at alpha .05. The null hypothesis
associated with each aspect of the services provided in government and private hospitals was rejected at .05.

Table 40

<table>
<thead>
<tr>
<th>Services</th>
<th>Government</th>
<th>Private</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with the food</td>
<td>2.5 .9</td>
<td>3.1 .8</td>
<td>398</td>
<td>-7.5</td>
<td>.000*</td>
</tr>
<tr>
<td>Shelter</td>
<td>2.3 .9</td>
<td>3.2 .6</td>
<td>398</td>
<td>-10.4</td>
<td>.000*</td>
</tr>
<tr>
<td>Information</td>
<td>2.8 .9</td>
<td>3.2 .7</td>
<td>398</td>
<td>-4.6</td>
<td>.000*</td>
</tr>
<tr>
<td>Contact</td>
<td>2.8 .8</td>
<td>3.2 .7</td>
<td>398</td>
<td>-3.9</td>
<td>.000*</td>
</tr>
<tr>
<td>Physical Arrangement</td>
<td>2.4 1.2</td>
<td>3.4 .7</td>
<td>398</td>
<td>-9.7</td>
<td>.000*</td>
</tr>
<tr>
<td>Facilities</td>
<td>2.5 .9</td>
<td>3.2 .7</td>
<td>398</td>
<td>-7.7</td>
<td>.000*</td>
</tr>
<tr>
<td>Meals</td>
<td>2.7 .9</td>
<td>3.2 .7</td>
<td>398</td>
<td>-5.5</td>
<td>.000*</td>
</tr>
<tr>
<td>Recreation</td>
<td>1.7 .9</td>
<td>2.7 1.0</td>
<td>398</td>
<td>-9.9</td>
<td>.000*</td>
</tr>
<tr>
<td>Medication</td>
<td>3.1 .8</td>
<td>3.3 .7</td>
<td>398</td>
<td>-3.0</td>
<td>.002*</td>
</tr>
<tr>
<td>Cost</td>
<td>2.7 1.0</td>
<td>2.5 1.0</td>
<td>398</td>
<td>1.96</td>
<td>.050*</td>
</tr>
</tbody>
</table>

* Significant at .05 level.

From Table 40, one can conclude that patients in private hospitals are more satisfied than patients in government hospitals with each aspect of services except the cost of the treatment. Private hospitals rely on the quality of services to attract
patients, while government hospitals rely on the low cost to attract patients.

Summary of the Fifth Hypothesis

This section reports an examination of the differences between the type of hospital and the rater's satisfaction. There were significant differences between government hospitals and private hospitals in rater satisfaction. Registered nurses, supervisors and patients were more satisfied in private hospitals than in government hospitals. However, registered nurses were less satisfied than supervisors in both government and private hospitals. These findings are consistent with other findings (e.g., Blood, 1974; Borman, 1974; Harris & Schaubroeck, 1988; Porter & Lawler, 1965; Shore & Thornton III, 1986; and Rosen, 1961).

The overall tests and the individual item test between rater mean scores on the satisfaction index and rater mean score on each satisfaction item were found to be significant. Differences in satisfaction between raters at the same level can be explained again by the type of the hospital. Private hospitals tend to be profit oriented organizations, while government hospitals tend to be nonprofit oriented organizations. In private hospitals more emphasis is placed on client satisfaction than in government hospitals. Private hospitals operate in uncertain environments, and they have to please their clients by providing good services. Without this emphasis patients would most likely prefer to use government
hospitals, because the services in government hospitals are almost free.

Registered nurses were more satisfied in private hospitals than in government hospitals. At the same time their propensity to leave was higher than in government hospitals, because most nurses working in private hospitals were foreigners and had to go back to their home country when their job contract expired.

Comparisons in the Relationship Between Raters' Satisfaction and Raters' Ratings of Registered Nurses' Performance in All Hospitals Combined

In this section, Pearson correlation coefficients were computed for the relationship between the rater's mean of the overall satisfaction and the mean of the rater's rating of the registered nurses' overall effectiveness (item 19 only) as well as rater's mean on the total satisfaction index and rater's mean on the total performance scores for ratings of registered nurses, supervisors, and patients in all hospitals combined. Pearson correlation coefficients were computed for the relationship between rater's ratings of the registered nurses' overall effectiveness and rater's individual satisfaction items.

Hypothesis 6.1

There is no relationship between rater overall satisfaction and rater ratings of registered nurses' overall effectiveness within government and private hospitals. To test the equality of the two
independent correlation coefficients, a test equivalent to t-test between two independent samples was used (Huitema, 1974).

**Overall Test of the Correlation Coefficients**

To examine the equality of nurses’, supervisors’, and patients’ population correlation coefficients \((J_n = J_s = J_p)\) in rater’s overall satisfaction and ratings of nurses’ overall effectiveness scores, a test for differences between independent correlation coefficients (Huitema, 1974) was conducted. Details of the methodology are explained in Appendix L.

**Table 41**

Test of the Equality of Population Correlation Coefficients for Registered Nurses, Supervisors, and Patients in the Relationship Between Raters’ Overall Satisfaction and Raters’ Ratings of Registered Nurses’ Overall Effectiveness

<table>
<thead>
<tr>
<th>Raters</th>
<th>( r )</th>
<th>( Z ) Fisher ( Z_{obt} )</th>
<th>( n-3 )</th>
<th>( (n-3)^2 )</th>
<th>( (n-3)^2 Z )</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>0.36</td>
<td>0.377 6.5</td>
<td>300</td>
<td>113.1</td>
<td>42.6</td>
</tr>
<tr>
<td>Supervisors</td>
<td>0.24</td>
<td>0.245 4.2</td>
<td>300**</td>
<td>73.5</td>
<td>18</td>
</tr>
<tr>
<td>Patients</td>
<td>0.43</td>
<td>0.460 9.2</td>
<td>397</td>
<td>182.6</td>
<td>84</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>979</td>
<td>369.2</td>
<td>144.6</td>
</tr>
</tbody>
</table>

* \( Z_{obt} = 7.9, \ & \ Z_{(crt \ \alpha =.05, \ df = 2)} = 5.991 \)

** \( n = 65 \) ratings 303 R. Nurses

The null hypothesis of the equality of the population correlation coefficients for registered nurses, supervisors, and
patients was rejected at alpha level 0.05 (\( \hat{c} \text{ obt} = 7.9 \hat{c} (\text{crt } \alpha = 0.05, \text{df} = 2) = 5.991 \)). The alternative hypothesis that there are differences between the three population correlation coefficients was retained (see Table 41).

**Individual Item Tests**

The correlation coefficient differences between registered nurses and supervisor in all hospitals (\( \text{Zobt} = 1.625, p = 0.099 \)) was found to be not significant at alpha level .05 (The two-tailed probability of obtaining a sample correlation having an absolute value equal to or higher than .12 when \( J(\rho) = 0.00 \) was .099).

Also, the correlation coefficient differences between registered nurses and patients in all hospitals (\( \text{Zobt} = 1.092, p = 0.2758 \)) was found to be not significant at alpha level .05. Hence, the probability of obtaining a sample correlation between registered nurses and patients of at least .22 when \( J = 0.00 \) was .27.

As can be observed from Table 41, there is a positive linear relationship between ratings of overall effectiveness of registered nurses' performance and the rater's overall satisfaction. There is a positive linear relationship between registered nurses' self-ratings of overall effectiveness and registered nurses' job overall satisfaction (\( r = .36, p = 0.001 \)). Also there is a linear relationship between supervisors' ratings of registered nurses' overall effectiveness and supervisors' job overall satisfaction (\( r = .43, p = 0.001 \)). A relatively strong positive linear relationship
between patients' ratings of nurses' overall effectiveness and patients' overall satisfaction with the services was also indicated in the hospitals ($r = .43, p = .001$).

**Hypothesis 6.2**

There is no relationship between the rater total satisfaction scores and rater ratings on the total performance index scores of registered nurses' performance.

**Overall Test for the Quality of Correlation Coefficients**

As can be seen from Table 42, the null hypothesis of the equality between the three groups (registered nurses, supervisors and patients) in the correlation coefficient was rejected ($\chi^2_{obt} = 41$) at alpha .05 level.

**Individual Item Tests**

Since Zobt value for registered nurses, supervisors, and patients was 5.2, 4.0 and 13.5 respectively, the associated null hypothesis with each rater was rejected. Alternatively, the exact probability found between and above Zobt values are found to be zero. The probability of obtaining a sample correlation having an absolute value equal to or greater than ($r = .299, r = .234$ & $r = .678$) when $=0.00$ was .000.
Table 42
Test of Significance for Pearson Correlation Coefficients Between the Mean Performance Index Scores and Total Satisfaction Scores

<table>
<thead>
<tr>
<th>Raters</th>
<th>r</th>
<th>Z Fisher</th>
<th>Zobt</th>
<th>n-3</th>
<th>(n-3)2</th>
<th>(n-3)22</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. Nurses</td>
<td>0.29*</td>
<td>.299</td>
<td>5.2</td>
<td>300</td>
<td>89.7</td>
<td>26.8</td>
</tr>
<tr>
<td>Supervisors</td>
<td>0.23*</td>
<td>.234</td>
<td>4.2</td>
<td>300</td>
<td>70.2</td>
<td>16.4</td>
</tr>
<tr>
<td>Patients</td>
<td>0.59*</td>
<td>.678</td>
<td>13.5</td>
<td>397</td>
<td>269.5</td>
<td>182.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td>997</td>
<td>429.4</td>
<td>135.6</td>
</tr>
</tbody>
</table>

* Significant at the .05 level. obt=41.0

The correlation coefficients differences between registered nurses and supervisors (Zobt = 0.8 p = .42) was found not significant at alpha level = .05. The two-tailed probability of obtaining a sample correlation having an absolute value equal to or higher than .06 when \( J = 0.00 \) was .42. Also, the correlation coefficients' differences between registered nurses and patients (Zobt = 4.98 p = .000) was found to be significant at alpha level .27. Hence, the probability of obtaining a sample correlation between registered nurses and patients of at least .30 when \( J = 0.00 \) was 0.00.

As can be seen from Figure 7, a positive relationship was found in registered nurses' mean scores on the total performance index scores and the total satisfaction index scores (r = .29, p = .001), total satisfaction scores and overall satisfaction (r = .66), total
performance scores and overall effectiveness ($r = .51$), total satisfaction scores and overall effectiveness ($r = .36$), and overall satisfaction and overall effectiveness ($r = .36$).

![Pearson Correlation Coefficients Between Registered Nurses' Satisfaction and Performance Ratings.](image)

**Figure 7.** Pearson Correlation Coefficients Between Registered Nurses' Satisfaction and Performance Ratings.

As can be seen from Figure 8, supervisors' mean scores on the total performance index scores of registered nurses' performance was found to correlate with supervisors' total satisfaction scores ($r$)}
=.23, p = .001). A strong positive relationship was found between supervisors' mean scores on the total performance index scores ratings registered nurses' performance and mean scores on the overall effectiveness (r = .53, p = .001), total satisfaction scores and overall satisfaction (r = .85).

![Figure 8. Pearson Correlation Coefficients Between Supervisors' Satisfaction and Supervisors' Ratings of Registered Nurses' Performance.](image)

As can be seen from Figure 9, there is also a strong positive relationship between patients' ratings of registered nurses' performance on the total performance index scores and patients' ratings of registered nurses' on overall effectiveness scores (r =
0.71, $p = 0.001$), total performance scores and total satisfaction scores ($r = .59$), total satisfaction scores and overall satisfaction scores ($r = .42$), total satisfaction index scores and overall effectiveness ($r = .55$), total performance scores and overall satisfaction scores ($r = .33$), and between overall effectiveness and overall satisfaction ($r = .31$).

However, this is not to suggest that there is a cause effect relationship but it is an indication of such a relationship. To test the cause effect relationship, different research design and sampling procedures would be needed.

Hypothesis 6.3

There is no relationship between rater ratings of nurses overall effectiveness scores and rater satisfaction on each individual satisfaction item scores.

Registered Nurses

As can be seen from Table 43, the probabilities of obtaining a sample correlation having an absolute value of at least (see $r$ values in Table 40) when $\mid r \mid = 0.00$ are listed in Table 41. The null hypothesis that $\mid r \mid = 0.00$ associated with each satisfaction item was rejected at alpha ranging from 0.00 to .68.
Figure 9. Pearson Correlation Coefficients Between Patients' Satisfaction and Patients' Ratings of Registered Nurses' Performance.

As can be seen from Table 43, there is a positive linear relationship between overall performance ratings and each performance item. The strongest positive correlations were found between the overall performance and the satisfaction with pay ($r = .36$). The lowest correlations were found between the overall effectiveness and working hours ($r = .02$), followed by job security ($r = .08$).
Table 43
Tests of Pearson Correlation Coefficients Between the Overall Effectiveness Scores and the Individual Satisfaction Item Scores for All Registered Nurses Combined

<table>
<thead>
<tr>
<th>Job Satisfaction Index</th>
<th>r</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with pay</td>
<td>.3659</td>
<td>.08*</td>
</tr>
<tr>
<td>Co-workers</td>
<td>.2252</td>
<td>.00*</td>
</tr>
<tr>
<td>Supervisors</td>
<td>.1703</td>
<td>.00*</td>
</tr>
<tr>
<td>Job security</td>
<td>.0809</td>
<td>.10*</td>
</tr>
<tr>
<td>Promotion</td>
<td>.1670</td>
<td>.00*</td>
</tr>
<tr>
<td>Working Hours</td>
<td>.0207</td>
<td>.68</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>.0778</td>
<td>.16</td>
</tr>
<tr>
<td>Benefits</td>
<td>.0832</td>
<td>.10</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

Supervisors

As can be seen in Table 44, there is a moderate relationship between mean scores of supervisors' ratings on the total overall effectiveness scores and individual satisfaction item scores. The lowest correlation was found between mean scores of supervisors' ratings on the total overall effectiveness scores and satisfaction with promotion. The null hypothesis that $\beta = 0.00$ associated with each individual satisfaction item scores was rejected at alpha .05.
Table 44

Tests of Pearson Correlation Coefficients Between Supervisors' Ratings of Nurses' Overall Effectiveness and Each Individual Satisfaction Item Scores

<table>
<thead>
<tr>
<th>Job Satisfaction Index</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction with pay</td>
<td>0.1361</td>
<td>0.027*</td>
</tr>
<tr>
<td>Co-workers</td>
<td>0.2447</td>
<td>0.000*</td>
</tr>
<tr>
<td>Supervisors</td>
<td>0.1458</td>
<td>0.012*</td>
</tr>
<tr>
<td>Job security</td>
<td>0.2266</td>
<td>0.000*</td>
</tr>
<tr>
<td>Promotion</td>
<td>0.0791</td>
<td>0.161</td>
</tr>
<tr>
<td>Working Hours</td>
<td>0.1274</td>
<td>0.035*</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>0.1723</td>
<td>0.002*</td>
</tr>
<tr>
<td>Benefits</td>
<td>0.1541</td>
<td>0.007*</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

It can be seen in Table 44, that there is a positive relationship between overall performance ratings and each of the satisfaction index items. The strongest relationship was found between supervisors' ratings of nurses' overall effectiveness and supervisors' satisfaction with co-workers ($r = 0.24$).

Patients

As can be seen from Table 45, the probabilities of obtaining a sample correlation having an absolute value of at least (see $r$ values...
in Table 45) when \( J = 0.00 \) are listed in Table 41. The null hypothesis that \( J = 0.00 \) associated with each individual satisfaction item was rejected at alpha level .05. From Table 41 one can conclude that there is a positive relationship between overall performance ratings and each performance item.

Correlation coefficients between each satisfaction subscale and the patients' ratings of nurses' overall effectiveness range from \( r = 0.30 \) to \( r = 0.45 \). The strongest positive correlations were found between the overall performance and the quality of services (\( r = 0.25 \)). From Table 45, when comparing with Table 44 and Table 43, one can conclude that the relationship between patients' ratings of registered nurses' overall effectiveness and patients' satisfaction was stronger than nurses' or supervisors' ratings of registered nurses' overall effectiveness and Job Performance Index individual items.

Summary of the Sixth Hypothesis

In this section, the results of Pearson correlation coefficients between raters' satisfaction and raters' ratings of registered nurses' performance were reported. There were a significant differences between raters in their satisfaction and ratings of nurses' overall effectiveness. These differences can be attributed to the affect of the type hospital as well as to the hospital level (nurses, supervisors, and patients).
Table 45
Tests of Pearson Correlation Coefficients Between Patients' Ratings of Nurses' on the Total Overall Effectiveness Scores and Individual Satisfaction Items

<table>
<thead>
<tr>
<th>Patients Satisfaction Scale</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of services</td>
<td>0.4582</td>
<td>0.00*</td>
</tr>
<tr>
<td>Did you get the kind of service you wanted?</td>
<td>0.4273</td>
<td>0.00*</td>
</tr>
<tr>
<td>To what extent has the service met your needs?</td>
<td>0.4020</td>
<td>0.00*</td>
</tr>
<tr>
<td>Recommending this hospital to someone</td>
<td>0.3931</td>
<td>0.00*</td>
</tr>
<tr>
<td>How satisfied have you been with the help?</td>
<td>0.4511</td>
<td>0.00*</td>
</tr>
<tr>
<td>Have the services helped you?</td>
<td>0.4369</td>
<td>0.00*</td>
</tr>
<tr>
<td>Would you come back here?</td>
<td>0.3074</td>
<td>0.00*</td>
</tr>
</tbody>
</table>

* Significant at the .05 level.

The findings of this study support the nondirectional causal relationship between satisfaction performance ratings (e.g., Carlson, 1969; Jacobs & Solomon, 1974; Herman, 1972; Petty et al., 1984; and Steers, 1975). It is emphasized that the relationship between satisfaction and performance ratings is correlational. Generalizations should not go beyond the amount of linearity and the direction of the relationship. However, this kind of relationship should be viewed as the first step toward studying a causal relationship.
Summary of Chapter IV

In this chapter data were presented pertaining to characteristics of the hospitals and participants. Findings were presented regarding the results of t-tests of the research hypotheses. Relationships were examined between (a) raters' ratings of nurses' overall effectiveness scores and rater's overall satisfaction scores in all hospitals combined; (b) raters' ratings of nurses' total performance scores and rater's total satisfaction scores in all hospitals combined; (c) rater's ratings of nurses' overall effectiveness scores, total performance scores, and rater's overall satisfaction scores and total satisfaction scores and in all hospitals combined; and (d) raters' ratings of nurses' overall effectiveness scores and individual satisfaction item scores in all hospitals combined.

Positive relationships were found between raters' ratings of registered nurses' overall effectiveness and raters' overall satisfaction in all hospitals combined. Also a positive relationship was found between raters' total satisfaction scores, and raters' ratings of registered nurses' total performance index scores in all hospitals combined. A summary of the overall tests is presented in Table 46.
Table 46

Summary Table of the Overall Tests of the Research Major Hypotheses

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Decision</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ho: 1.1 There are no differences between registered nurses' self-ratings and supervisors' ratings on the total performance index scores for all hospitals combined.</td>
<td>Rejected</td>
<td>.000*</td>
</tr>
<tr>
<td>Ho: 1.2 There are no differences between registered nurses' self-ratings and patients' rating on the total performance index scores for all hospitals combined.</td>
<td>Rejected</td>
<td>.008*</td>
</tr>
<tr>
<td>Ho: 2.1 There are no differences between registered nurses' self-ratings and supervisors' ratings on the total performance index scores for all government hospitals combined.</td>
<td>Rejected</td>
<td>.000*</td>
</tr>
<tr>
<td>Ho: 2.2 There are no differences between registered nurses' self-ratings and patients' ratings on the total performance index scores for all government hospitals combined.</td>
<td>Rejected</td>
<td>.003*</td>
</tr>
<tr>
<td>Ho: 2.3 There are no differences between registered nurses' self-ratings and supervisors' rating on the total performance index scores for all private hospitals combined.</td>
<td>Rejected</td>
<td>.000*</td>
</tr>
<tr>
<td>Ho: 2.4 There are no differences between registered nurses' self-ratings and patients' ratings on the total performance index scores for all private hospitals combined.</td>
<td>Retained</td>
<td>.120</td>
</tr>
<tr>
<td>Ho: 3.1 There are no differences between government and private hospitals the total performance index scores for all raters combined.</td>
<td>Retained</td>
<td>.100</td>
</tr>
</tbody>
</table>
Ho: 3.2 There are no differences between government and private hospitals on the total performance index scores for all registered nurses combined. Retained .128

Ho: 3.3 There are no differences between government and private hospitals on the total performance index scores for all supervisors combined. Retained .177

Ho: 3.4 There are no differences between government and private hospitals on the total performance index scores for all patients combined. Rejected .022*

Ho: 5.1 There are no differences between government and private hospitals on the total satisfaction index scores for all registered nurses combined. Rejected .000*

Ho: 5.2 There are no differences between government and private hospitals on the total satisfaction index scores for all supervisors combined. Retained .160

Ho: 5.3 There are no differences between government and private hospitals on the total satisfaction index scores for all patients combined. Rejected .002*

*Significant at .05 level
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter provides a brief discussion of the findings, identification of the limits of the study, the implications of the study for practice, and recommendations for further research.

The purpose of this study was to examine (1) the differences in the ratings of the registered nurses' performance between registered nurses, supervisors, and patients, and (2) the differences between two types of hospitals in ratings of registered nurses' performance. In other words, the goal of this study was to examine the differences between raters within and between hospitals. This study also examined the relationship between rater satisfaction and rater ratings of registered nurses' performance.

Summary

Chapter I focused on the introduction, the health system in Jordan, the hospitals in Jordan, the history of nursing, the historical development of the nursing profession, the statement of the problem, and the objectives of the study.

Chapter II included a reviewed selected literature dealing with organizational differences, organization size, position
characteristics, job experience, type of rater, rater familiarity with ratee's job, roles of nurses, rater characteristics, race of rater, gender of rater, rater educational level, rater rank, race of ratee, age of ratee, gender of ratee, ratee's educational level, rater-ratee interaction, interaction of rater-ratee characteristics (gender, race, age, and ratings process), job performance and job satisfaction, treatment factors (type of setting, relationship to satisfaction with service provides, experience of practitioner, length of treatment, manner of termination, aspects of organization, and perception of the treatment), patient variables (demographic variables, diagnostic and history variables, world view, client expectation, relationship to measures of therapist satisfaction, satisfaction of significant others, and inpatient recidivism).

A review of the related literature revealed the importance of organizational differences in the study of the employee's behavior. Organizational differences can be attributed to organizational structural factors like size and type. The literature review revealed differences between raters in ratings performance within and between organizations. Self-ratings were higher than ratings by supervisors and other raters in the majority of studies. Raters' differences stem from raters' position, age, sex, experience, education, and familiarity of the rater to the ratee's performance. It further appears from the literature review that there are differences between individual satisfactions (job satisfaction and client satisfaction) due to individual demographic variables as well
as to organizational factors. A positive relationship was found between performance and satisfaction. Moreover, in the case of patients, history of treatment and patient recidivism are additional factors in determining patient satisfaction.

Chapter III reported on the setting, the sample, the development of the research instruments used in this study, and the manner in which data were collected from registered nurses, supervisors, and patients. This study consisted of 10 hospitals (5 government hospitals and 5 private), and 303 registered nurses in these hospitals, 60 supervisors and 400 patients (200 from each sector). The patients' sample was a convenience sample, and all shift A registered nurses and their corresponding supervisors were included in the study. The performance rating instrument used in this study was developed by Zammuto et al. in 1982, and adapted by this researcher. The performance questionnaire was administered to all registered nurses, supervisors, and patients. Registered nurses and supervisors were asked to rate each registered nurse's performance for one day only (yesterday). Patients were asked to rate all nurses' performance (as a group) for one day only using the same performance instrument. Patients' satisfaction scale was administered to all patients, and a job satisfaction index was administered to all registered nurses and their supervisors. Directors of the personnel department in each hospital were asked to answer a short questionnaire about the hospital structural variables. Job satisfaction of registered nurses and supervisors was measured by
a job satisfaction index, a 10-item index which was based on the literature review. Patient satisfaction was measured by a clients' satisfaction scale developed by Attkisson and his colleagues (Attkisson & Zwick, 1982; Larsen et al., 1981; Nguyen, Attkisson & Stegner, 1983).

Chapter IV reported the findings of this study. Comparisons of total performance ratings scores as well as individual performance items were made between (a) registered nurses vs. supervisors and registered nurses vs. patients within government and private hospitals and in all hospitals combined, (b) combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals, and (c) Comparisons of total performance ratings only between registered nurses vs. supervisors and registered nurses vs. patients within each hospital. Comparisons of total satisfaction ratings scores as well as individual satisfaction items were made between separate ratings of registered nurses, supervisors, and patients between government and private hospitals. In addition, the Pearson coefficient correlation was used to test the relationship between (a) rater overall satisfaction and rater ratings of the overall effectiveness in all hospitals combined, and (b) rater total satisfaction scores and rater mean ratings. This chapter is broken into sections representing each hypothesis.

This chapter (Chapter V) represents an account of what is in all of the previous chapters—a summary of the findings, discussion
of the findings, the conclusion, recommendations based on the findings, and the implications for the registered nurses practices.

Discussion of the Results

The findings of this study supported Merton's (1968) analysis that organizational structure affects employee behavior and attitudes. Differences between government and private hospitals in performance ratings and satisfaction supports Merton's analysis of the structural effects on employee behavior and attitudes. Differences between raters in performance ratings and satisfaction support the organizational-level argument (Borman, 1974; Harris & Schaubroeck, 1988; Zammuto et al., 1982), which emphasized that raters at different levels rate performance differently, and raters at the same organizational level agree on performance dimensions ratings and disagree on the overall ratings.

The first question concerned the mean differences between raters in ratings registered nurses' performance in all selected hospitals. Overall tests showed significant differences between registered nurses vs. supervisors at \( \alpha = .05 \) level (\( t = 5.42, p = 0.000 \)), as well as between registered nurses and patients (\( t = 2.66, p = .008 \)). The results of this study indicated that the mean of the registered nurses' self-ratings was higher than supervisors' ratings as well as patients ratings of registered nurses' performance. The mean on the total performance scores for registered nurses, supervisors, and patients were 17.15, 16.23, and 16.68, respectively.
The second question of interest concerned the differences between raters within government and private hospitals. The mean of registered nurses' self-ratings on the total performance index in government hospitals was greater than the mean of supervisors' ratings of nurses' performance as well as patients' ratings of nurses' performance in the same hospitals. The mean value for registered nurses, supervisors, and patients was 17.0, 16.3, and 16.3, respectively. Mean differences on the mean of the total performance index between registered nurses and supervisors and between registered nurses and patients was found to be significant at α .05 level (p = 0.000 and p = 0.003 respectively).

The mean of registered nurses' self-ratings performance on the total performance index was greater than the mean of supervisors' ratings of nurses' performance as well as patients' ratings of nurses' performance in private hospitals. The mean value for registered nurses, supervisors, and patients was 17.4, 15.8, and 16.9, respectively. Mean differences on the total performance index between registered nurses and supervisors was found to be significant at α .05 level (p = 0.000). Mean differences on the total index between registered nurses and patients was found to be nonsignificant at α .05 level (p = 0.000).

The third question of interest concerned the combined as well as separate ratings of registered nurses, supervisors, and patients between government and private hospitals in the total performance index scores. The mean of all raters combined on the total
performance index in government hospitals was less than the mean of all raters on the total performance index in private hospitals. The mean of all raters' ratings of the registered nurses on the total performance index in government and private hospitals was 16.6 and 16.8, respectively. The mean differences between government and private hospitals for all raters' ratings of registered nurses' performance was found to be nonsignificant at alpha .05 level ($t = -1.65, p = 0.100$). The mean of registered nurses' self-ratings on the total performance index in government hospitals was lower than the mean of registered nurses' self-ratings on the total performance index in private hospitals on the performance index (17.0 and 17.4, respectively) as well as the supervisors' (16.3 and 15.8, respectively) and the patients' (16.3 and 16.9, respectively) ratings of registered nurses' performance. The mean differences between government hospitals and private hospitals in all registered nurses' self-rating, supervisors', and patients' ratings of registered nurses' performance on the total performance index was found to be significant at $\alpha .05$ only for patients ($t = -2.30, p = 0.022$), and nonsignificant for registered nurses and supervisors ($t = -1.52, p = 0.128$ & $t = -1.35, p = 0.177$).

The fourth question of interest concerned mean of the total performance scores as well as individual performance items between registered nurses vs. supervisors and registered nurses vs. patients. Registered nurses' self-ratings on the total performance index were higher than the supervisors' ratings on the total performance index.
at each hospital. Mean difference between registered nurses and supervisors at each hospital was found to be significant at $\alpha .05$ level for three government hospitals (Alkarak, Alzarka, and University of Jordan hospital), and for two private hospitals (Alislami and Alamal hospitals). Also, nurses' self-rating on the total performance index was higher than patients' ratings of registered nurses' performance on the total performance index in each hospital. Significant differences were found between registered nurses and patients at $\alpha .05$ level for one government hospital (Alzarka), and for two private hospitals (Alislami and Alamal hospitals).

The fifth question of interest concerned the differences between government hospitals and private hospitals on the mean of registered nurses total satisfaction scores. The mean of registered nurses' scores on the total satisfaction index in government hospitals was found to be lower than in private hospitals (12.3 and 13.9 respectively). The mean differences between the government hospitals and private hospitals in the registered nurses' total satisfaction scores were found to be significant at $\alpha .05$ level ($t = -3.97, p = 0.000$). The mean of supervisors' scores on the total satisfaction index in government hospitals was found to be lower than in private hospitals (13.9 and 14.4, respectively). The mean differences between government hospitals and private hospitals in registered nurses' total satisfaction scores were found to be significant at $\alpha .05$ level ($t = -1.39, p = 0.166$). Patients were
more satisfied in private hospitals than in the government hospitals. The patients' total scores on the satisfaction scale in government hospitals were lower than in private hospitals (24.3, 27.3, respectively). The mean differences between government and private hospitals in patients' satisfaction were significant at α .05 level (t = -6.79, p = .000).

The sixth question of interest concerned the relationship between rater overall satisfaction and rater ratings of the registered nurses' overall effectiveness. A positive relationship was found between rater overall satisfaction and rater ratings of the registered nurses' overall effectiveness. The correlation coefficients for registered nurses, supervisors, and patients were .36, .24, and .43, respectively. A positive relationship was found between the ratings of registered nurses' performance and registered nurses' job satisfaction in government hospitals and in private hospitals (r = .26, and .54, respectively). A positive relationship was found between supervisors' performance ratings of registered nurses' performance and supervisors' job satisfaction in government hospitals and in private hospitals (r = .19, and .42, respectively). A positive relationship was found between patients' satisfaction and patients' ratings of registered nurses' performance in both government and private hospitals (r = .55 and .42, respectively). Also, there is a positive relationship between rater overall satisfaction and rater ratings of nurses' overall effectiveness. These coefficients were found to be significant at .001.
A positive relationship was found between rater mean on the total satisfaction index scores and rater mean on the total performance index scores of registered nurses' performance. The correlation coefficients for registered nurses, supervisors, and patients were .29, .23, and .59, respectively. These correlation coefficients were significant at alpha level .05.

Conclusions

Based on the findings associated with the tested hypotheses of this study, the procedures employed, and the results of the statistical tests of the research questions, the following conclusions were formulated:

1. Registered nurses tend to rate their performance at all hospitals higher than their supervisors' ratings and the patients' ratings of their performance. However, patients' ratings of nurses was higher than supervisors. This may be explained by the observational opportunity assumption. Patients have more opportunities to observe registered nurses' performance than supervisors. As a result of this, a lesser degree of disagreement is to be expected between registered nurses' and patients' ratings of registered nurses' performance than between registered nurses' and supervisors' ratings of registered nurses' performance.

2. Registered nurses' self-ratings of their performance in all government hospitals was higher than their supervisors' ratings and patients' ratings of their performance in the same hospitals. Even
when controlling statistically for the type of hospital, the mean of registered nurses' self-ratings is greater than supervisors' and patients' ratings of registered nurses' performance. Also, within government and private hospitals, the discrepancy between registered nurses and patients is lower than between registered nurses and supervisors in ratings registered nurses' performance.

3. Nurses' self-ratings mean score of their performance in all private hospitals was also higher than supervisors' and patients' ratings of registered nurses' performance in the same hospitals.

4. Raters in government hospitals rated registered nurses' performance higher than raters in private hospitals. Registered nurses', supervisors', and patients' mean ratings of registered nurses in government hospitals were higher than the mean of private hospitals. When controlling statistically for the type of rater, differences between rates can be explained by differences between hospitals (e.g., type of hospital). Nationality may affect the difference between government hospitals and private hospitals in rating registered nurses' performance. In government hospitals most registered nurses and supervisors are Jordanian, while in the private hospitals most registered nurses are foreigners.

5. Registered nurses' self-ratings were higher than patients' and supervisors' ratings of nurses' performance on the total performance index at each hospital. This supports the hypothesis that raters at different organizational levels rate performance differently.
6. Registered nurses' self-ratings on the total performance index scores were higher than patients' ratings of nurses' performance on the total performance index at each hospital. Within each hospital the same findings remain consistent with the previous conclusions.

7. Mean scores for nurses on the total satisfaction index scores at government hospitals were lower than the mean of registered nurses' scores on the total satisfaction index scores at private hospitals.

8. Supervisors' mean score on the total satisfaction index at the government hospitals was lower than the mean score of supervisors on the total satisfaction index at private hospitals. This finding supports the hypothesis that as we move up the organizational levels, employee satisfaction also goes up. It seems that the hierarchy in organizational chart has an effect on employee satisfaction.

9. Patients' mean score on the total satisfaction index at government hospitals was lower than the mean of patients' scores on the total satisfaction index at private hospitals.

10. There is a linear relationship between rater overall satisfaction and the raters' ratings of the nurses' overall performance. This implies that improving performance can be done by connecting job incentives to good performance.

11. There is a linear relationship between raters' ratings of the nurses' overall performance and rater satisfaction on each satisfaction item.
12. Registered nurses and patients at private hospitals were more satisfied than registered nurses and patients at government hospitals. This can be explained by the fact that most registered nurses in private hospitals are foreigners and work under contracts which are renewed yearly. The major factor contributing to the renewal of the contract is good performance and patient satisfaction. Registered nurses in government hospitals do not have to worry about being fired from their jobs, because it is such a rare occurrence, but they do not have the same level of pride and satisfaction in their work, resulting from renewal of yearly contracts as is the case of registered nurses at government hospitals.

13. Supervisors at private hospitals had higher satisfaction scores on the individual satisfaction items than than registered nurses at government hospitals, except for the following items: overall satisfaction, pay, work hours, and working conditions. This finding is consistent with the previous ones that supervisors are expected to be more satisfied than registered nurses at both government and private hospitals.

Implications for Practice

The results of this study have several important implications for the nursing practice.

1. Registered nurses, supervisors, and patients lack convergence in rating nurses' performance. It is suggested that self-, supervisors', and patients' ratings may be used as an
alternative to the traditional performance evaluation methods of promotion based on seniority. Other types of raters, such as peer and disinterested observers, may be included in evaluation of staff. Collecting performance ratings based on different raters may be used for multiple-purpose uses. It can be used as a developmental tool for nurses' performance (e.g., identifying training needs, performance feedback, determining transfers, and assignments, and identifying individual strengths and weaknesses) ratings of registered nurses (e.g., promotion review, salary administration, and recognition of individual performance, layoffs and identifying poor performance) by administrators (e.g., personnel planning, determining hospital training needs, evaluating goal achievement, assisting in goal identification, identifying hospital development, criteria for evaluating staff).

2. Educators should incorporate views of registered nurses and patients along with supervisors' views in the registered nurses' education. Registered nurses perform at different levels in the hospitals and at each level are judged by different raters (e.g., supervisors, patients, and peers). Registered nurses ideally have to please their supervisors and patients, and supervisors and patients employ different criteria for rating nurse performance. Incorporating registered nurses' performance criteria and expectations by different stakeholders in nursing school curricula might help satisfy this demand.

3. The strength of the relationship between satisfaction and
performance implies that hospital effectiveness would be improved by rewarding good performers and by restricting turnover to poorer performers. It is highly desirable for hospitals to foster a high level of satisfaction and performance. The relationship between performance and satisfaction might be used as a diagnostic tool for hospital effectiveness. Furthermore, being rewarded for good performance is likely to encourage good performance and create healthy competition between medical staff members.

4. Job descriptions for nurses should include performance criteria based on nurses', supervisors', and patients' views. This should also narrow the gap between registered nurses, supervisors, and patients in rating registered nurses' performances, because raters would be able to objectively determine the performance dimensions and rate performance accordingly.

5. Government support to hospitals could be based partly on the performance of staff and client satisfaction in order to be able to compete for better services with private hospitals.

The Jordanian Institute for Administration can play an important role in training hospital administrators, supervisors, and even registered nurses under special training workshops. The contents of these workshops might be concentrated on job performance and client satisfaction. Based on the hospital performance appraisals, administrators in government as well as private hospitals can identify their training needs, and special programs can be developed to meet such needs. Also, implications of this study may
help to call attention to performance problems by considering the structural differences between hospitals and raters. Employees respond to decisions for promotions and other job offers by trying to maximize their productivity and please their supervisors with their job performance.

Recommendations for Future Research

Where should research efforts be directed in the future? This study points at two research areas that needed to be studied.

The two major areas in which more adequate research is needed are performance ratings and hospital structure.

(1) Research is needed to develop a standardized scale(s) of performance in the health areas for registered nurses, doctors, and clients (patients).

(2) Job and client satisfaction need to be further explored, and develop standardized measurements need to be developed for both of them.

(3) Colleague evaluation is needed along with registered nurses' self-evaluation, supervisors', and patients' evaluation of registered nurses' performance, because each rater takes a different angle in evaluating nurses' performance. Jointly, they will give a comprehensive picture of registered nurses' performance as well as supervisory and client participation, which provide some criteria for hiring and firing employees.

(4) Better rating formats are needed to reduce rating errors.
Future research in this area must be addressed to more complex questions. Attention should be given to possible interrelationships between and among different organizational structure variables. This can be achieved by investigating the interaction among structural properties of hospitals in their relationship to registered nurses' job behavior and attitudes. Longitudinal studies are needed to draw valid conclusions and identify the causal links, if any, between organizational characteristics and job performance and satisfaction. It is recommended that more studies be conducted on the effect of structure on medical staff performance with a larger sample of hospitals. More studies are needed to measure the effect of different structures on performance. For instance, studies on university structure vs. hospital structure, doctors vs. instructors, and patients vs. students are needed. These kinds of studies will maximize the variance between organizational structure and allow for valid comparison. This study was conducted in government and private hospitals, a majority of which are located in Jordan's central region. It is recommended that a military hospital be used in future research. This would help examine the effect of different types of structure on performance. Other cross-cultural comparisons for conducting similar research in the neighboring countries is now feasible.

Increased attention should be paid in the future to research that combines structural variables with functional variables of the hospitals. This should improve our understanding of the way
employees behave when they function in their jobs in the hospitals. Researchers should focus on hospital performance and its determinants. As researchers' solutions may not speak to practitioners' problems, more applied research is needed. Practitioners' concerns should be incorporated in the research questions, e.g., how should the services and quality of patient care be improved.
Appendix A

Approval Letters
إلى الله الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI, 49008

السيد مهالي وزير الصحة المحترم

الموافق 1 حزيران 1989

بعد التحية الطيبة:

انا طالب دكتوراه انتربعي القياس بدراسة بعنوان "تقدير الأداء الوظيفي لدى الممرضين والممرضات في المستشفيات الحكومية والخاصة في الأردن"، اغدو ممتنًا لتكريمكم في السماح بجمع بيانات الدراسة من المستشفيات الحكومية التي تشرف عليها وزارة الصحة. كما اود أكيد دان البيانات المجمعة لن تستخدم لأغراض الدراسة العلمية.

واقبلاً فائق الشكر والاحترام

الباحث

ذيب البداية

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بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI, 49008

عطره السيد مدير المرسوم الفضائي الأردني المحترم
الموافق 21 حزيران 1989

بعد التحية الطيبة:

انى طالب دكتوراه أجري القياس بدراسة بعنوان "تقدير الأداء الوظيفي لدى الممرضين والممرضات في المستشفيات الحكومية والخاصة في الأردن"، اغدو ممتنًا لوقتك متميًّا في المساح بجمع بيانات الدراسة من المستشفيات الحكومية التي تشرف عليها المؤسسة العلاجية، كما أود أن أتمنى أن تكون البيانات المجمعة لن تستخدم إلا لأغراض البحث العلمي فقط.

واحلاً فائق الشكر والاحترام

الباحث

ذياب البداية
طولة خبر مام المؤسسة الطبية العلاجية المسرور

أرجو الإبلاغ عن رشالة السيد نائب الداين التي يقوم برسالة

حول تغليب الإداة الوظيفية لدى السروين والسرميات في المستنبات

الحكومية والداخلية في الاردن، راحلي غذام السعامة المبنكة لـ

من خلال مسواتي المؤسسة العلاجية، آمل أن يقوم مرسام

نسعد بها جميعاً

واطعاً فائق الاحترام،

وزير الصحة والتنمية الاجتماعية

الدكتور زهير محسن

("السماح للاستفادة من texto")
مدير مستشفى الجامعة الأردنية
مدير مستشفى الملكة صفاء
مدير مستشفى الأمير سمعة
مدير مستشفى الورقاء الحكومي
مدير مستشفى الكرك الحكومي
مدير المركز الوطني للصحة النفسية
مدير مستشفى الحسين / السلط

الموضوع / الإداء الوظيفي

1. أرفق فيه صور لكل مسمى عن كتاب معايي وزير الصحة والمجتمع الاختصار به رقم
2. برجي إجراء انتخاب وتقدم المساعد المسكن للمنكرو لطبيب...

واقلوا الاحترام

[ลาย]

نسخة إلى

معالي وزير الصحة والتنمية الاجتماعية/ اداره كتاب
ملفكم رقم 20/2/1234 بتاريخ 9/2/2019
"المنكرو بالمسلم لطينا" المستنير

[ลาย]

س ع/يوم
بسم الله الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI 49008

السيد مدير مستشفى الرسالة

الموافق 1 حزيران 1989

بعد التحية الطيبة:

انطلت دكتوراه من تقييم بدراسة بعنوان تقييم الأداء الوظيفي لدى الممرضين والممرات في المستشفيات الحكومية والخاصة في الأردن. لقد نمت لكونها في السماح بجمع بيانات الدراسة من المستشفى الذي تديرته. كما أعهدت ببيانات المجموعة لن تستخدم إلا لأغراض الدراسة العلمية.

وأقبلوا فائق الشكر والاحترام

الباحث

ذيب البداية

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لهم الله الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI 49008

السيد مدير مستشفى أكالدي

البوافق 1 حزيران 1989

بعد التحية الطيبة:

انطلاقاً من الاهتمام والملاحظة والإجابة على تقارير الممرضين والممرضات، م趱اً في المستشفيات الحكومية والخاصة في الأردن، ألغى ممثلي لتكريم الممارسة في المستشفى، بجمع بيانات الدراسة من المستشفى الذي تشير إلى، كما وحده بالبيانات التي تشير إلى

تستخدم الأغراض العلمية.

واقبوا فائق الشكر والاحترام

الباحث

ení

ذيب البديه

ملحق:

ارضان لون

المواطن

الثامن

الملحق

متحمس في تحديد الوجه محور weitere العلم

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الله الحليم الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI 49008

السيد مدير مستشفى بـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ ـ

الياقوت ـ حزيران 1989

اذا طالب دكتوراه انتوي الالامري بدراسة عماوان تقدير الآراء الوظيفي لدى المرضين والمرضى في المستشفيات الحكومية والخاصه في الأردن. اقتحم إجابة الموجب نموذج الوظيفي للسماح بجمع البيانات من المستشفى الذي تديرته. كما ووافق بيان البيانات المجمعة لن تستخدم إلا لأغراض الدراسة العلمية.

واقبروا فائق الشكر والاحترام

الباحث

ذيب البداية

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الملاحظات على نتائج البحث محققة عند الطالب

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ليرحالم

بسم الله الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI. 49008

السيد مدير مستشفى

الإيمان... 1989

الموافق 1 حزيران 1989

بعد التحية الطيبة;

أنا طالب دكتوراه انتوني القيام بدراسة بعنوان تأثير الأداء الوظيفي لدى الممرضين والممرضات في المستشفيات الحكومية والخاصة في الأردن، أقدم ممنئاً لتكريمي في السماح بجمع بيانات الدراسة من المستشفى الذي تديره، كما وؤكد بأن البيانات الجماعية لن تستخدم إلا لأغراض الدراسة العلمية.

وأقبلوا فائق الشكر والاحترام

الباحث

ليرحالم

ملاحظة: ملخص في نماذج البحث موجود عند الطلاب.

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بسم الله الرحمن الرحيم

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo MI 49008

السيد مدير مكتبة السنة المستحبة

 الموافق 1 حزيران 1989

بعد التحية الطيبة:

انتقل دكتوراه انوي القياس بدراسة عنوان تقدير الأداء الوظيفي لدى المرضى والممرضين في المستشفيات الحكومية والخاصة في الأردن. أغدو ممنّاً لتعزيزها في السماح بجميع بيانات الدراسة من المستشفى الذي تديره. كما أؤمّد بأن البيانات الجماعية لن تستخدم إلا لافراط الدراسة العلمية.

واقبلوا فائق الشكر والاحترام

الباحث

ريدان مدني من طلبة الدراسة

ذيب البديّة

ستعين عليها

---

ملخص على نتائج اليد من تكوينات الجمل عند الطلب.

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Appendix B

Nurses' Questionnaire (English and Arabic Translation)
Nurses Self-Performance Ratings in Jordanian Governmental and Private Hospitals.

Diab M. Al-Badayneh
P.O. Box 182171
Amman
Jordan

Please Do Not Write On the Instrument Performance Rating Questionnaire
Directions:
The attached questionnaire is concerned with the nurse's self-ratings of performance. Please complete the following survey as honestly as you can. I am particularly interested in your response because it will contribute significantly toward solving some of the problems facing the health field. Other phases of this research will not be carried out until we complete the analysis of these data.

To complete the survey WRITE the number between 1-20 on the answer sheet that most closely reflects your thoughts about your performance. If you WRITE # 1 it means that you think that your performance on the aspect you are rating was extremely low, but if you WRITE # 20 it means you think that your performance on the aspect you are rating was extremely high. WRITE a number between 1 and 20 to reflect what you think your performance was on each item.

I would welcome any comments you may have concerning any aspect of the health care not covered into the questionnaire.

Thank you for your cooperation.

Sincerely

Diab M. Albadayneh

Part.1
How would you rate your performance (yesterday only) on a 20-point continuum where 1 denotes an extremely low performance and 20 denotes an extremely high performance.

Example: (1) Technical Competence: I rate my technical competence for yesterday on a scale from (1 to 20) 12. Please answer the following questions using the same format. Use the enclosed answering sheet.

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
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<tr>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

(1) Technical competence
(2) Ability to organize and schedule work loads
(3) Skills in planning nursing care
(4) Acceptability of completed work
(5) Attendance and promptness
(6) Observance of rest and lunch periods
(7) Amount of work performed
(8) Completion of work on schedule
(9) Adaptability in emergencies
(10) Quality of work (e.g., lack of errors)
(11) Dependability
(12) Willingness to perform duties
(13) Observance of rules and regulations
(14) Effort applied
(15) Accepting responsibility for own behavior
(16) Making a high impression on visitors
(17) Personal appearance
(18) Skill in communications
(19) Overall effectiveness

For each item listed below WRITE the number between (1 = extremely low and 20 = extremely high) that reflects your thoughts about the following items:

(20) Overall satisfaction with work
(21) Satisfaction with pay
(22) Satisfaction with co-workers
(23) Satisfaction with supervisors
(24) Satisfaction with job security
(25) Satisfaction with opportunity for advancement
(26) Satisfaction with working hours
(27) Satisfaction with working conditions
(28) Satisfaction with benefits (e.g. Housing)
(29) Consideration to leave your present job

(30) For items which you gave yourself high performance ratings, to what extent is that rating due to the items listed below
(1 = low, 20 = high):

1. Ability
2. Effort
3. Job simplicity
4. Luck

(31) For items which you gave yourself low performance ratings, to what extent is that rating due to the items listed below
(1 = low, 20 = high):

1. Ability
2. Effort
3. Job difficulty
4. Luck

Part.2

Now I'd like to ask you few questions about your background. This information will be used only by the researcher and will not be available to anyone in your hospital.

(32) Sex
1. Male
2. Female

(33) Religion
1. Muslim
2. Christian
3. Other

(34) Nationality
1. Jordanian
2. Arabian
3. Philippines
4. Sri Lanka
5. Other

(35) Age
1. Under 18
2. 18-29
3. 30-39
4. 40-49
5. 50-59
6. Over 60

(36) Marital Status
1. Never Married
2. Married
3. Widowed
4. Divorced

(37) Family Size
1. Two persons
2. 3-5 persons
3. 6-8 persons
4. 9-11 persons
5. Other, specify

(38) Annual Income
1. Less than JD 500
2. JD 500-999
3. JD 1000-1999
4. JD 2000-2999
5. JD 3000-3999
6. Other, specify JD
(39) Number of wage earner in Family
1. One person
2. 2-3 persons
3. 4-5 persons
4. More than 6 persons
5. No one

(40) Specialty __________________

(41) Education
2. Less than high school
3. High school
4. Diploma in
5. B.A. In
6. MA in

(42) How long have you been in this profession?
Years____ Months____

(43) How long have you been in this job at this hospital?
Years____ Months____

(44) Rank
1. Contract
2. Daily wages
3. Entry level workers
4. Rank 10-8
5. Rank 7-4
6. Rank 3-1
7. Other, specify ___________

(45) Training Institution
1. Jordanian School of Nursing
2. Irbed School of Nursing
3. Zarqa School of Nursing
4. Jordan University College of Nursing
5. Other, Specify ___________

(46) Department ____________________________
(47) Number of your superiors in your Job

(48) Hospital Type

1. Government Hospital
2. Private Hospital

**** Thank You For Your Time ****
لاستمراره
التقدير الخاص لإرها الوظيفي لدى الممرضين
والمرضى في المستشفيات الحكومية والخاصة في الأردن.

عمان صب 182171
الاردن

يرجى عدم الكتابة على الاستمراره.
المراجعة

تهدف هذه المراجعة إلى معرفة تقدير الرغبة المحتملة في الاستمرار في العمل في الوظيفة، حيث تجيب على السؤال: ماذا ت줄به المستشار؟ اعتقلاً اختر

أو رقم 1-20 والذي تعتمد عليه يمثل تقديرك للشخص في الوظيفة في اليوم المحدد. بحيث يمكن أن يكون الرقم 1 إجابة منخفضة جدًا، ويمكن أن يكون الرقم 20 إجابة عالية جدًا.

أ�� اختيار أي رقم بين 1-20 لإجابةك الوظيفة على هكذا تقول من الفقرات يعتمد على تقديرك لشخصية الم đòوع، لذا أرجو ملء هذه الاستمارة بكل حفاظ واحترام، كما أن

أي فهم اسم، تستخدم جميع خطوات ويعتبر أن يستعمل لأغراض البحث العلمي فقط.

لذا أتمنى جميع الأفراد ينضمون هذه الدراسة.

أقترح استجابةكم باهبة مع الكمية الأولى من الأهمية.

فبنا جمع الاستجابات التي تواجه القطاع الصحي.

وكم نحذب بأي ملاحظات تجاهل أو حذاء من هذه.

لاكتشاف أتمنى جزيل تعاونكم...

الباحث

نور

ذيب البذاينة

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تمثل الفقرات المدرجة أدناه جوانب الأداء الوظيفي بشكل عام، على مقياس من 1-20 قدر إداءك الوظيفي على كل جانب من هذه الجوانب لليوم المنصرم، حيث يمثل الرقم 1 الأداء المنخفض وينقص الرقم 20 الأداء العالي.

مثال: (1) الكفاءة الفنية (المهنية) اقدر ستفعلي الفنية لليوم المنصرم

<table>
<thead>
<tr>
<th>الاداء المنخفض</th>
<th>الأداء العالي</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

1. الكفاءة الفنية (المهنية)
2. القدرة على تنظيم وجدول اعياء العمل (اليومي)
3. المهارات في تخطيط ورعاية المرضى
4. العمل اليومي المنجز (اليوم المنصرم)
5. الوضوح على الدوام والبيظاء
6. التقيد بأوقات الاكل والاستراحه
7. كميه العمل المنجز
8. انجاز العمل في الوقت المحدد
9. القدرة على التكيف في الحالات الطاره
10. نوعية العمل المنجز (عدم وجود اختياء)
11. الاعتماد على النفس في العمل
12. الرغبة في انجاز الواجبات الوظيفيه
13. التقيد في قواعد وأجراءات العمل
14. الجهد المبذول في العمل
15. تحمل المسؤوليه عن السلوك الشخصي
16. احداث انطابع جيد لدى الزوار
17. الظهر الشخصي
18. مهارات التواصل مع الآخرين (التعامل)
19. الفعاليه بشكل عام
1. المقدرة الشخصية
2. الجهد المبذول
3. سهولة العمل
4. الحظ

(31) على الفقرات التي قدرت عليها ادراك مبالي، إلى درجة تعزو هذا التقدير إلى كل من الفقرات التالية: (اختاري رقم بين 1 إلى 20) والذي يمثل تقديرك حسب 1. منخفض و 2. عالي

1. المقدرة الشخصية
2. الجهد المبذول
3. صعوبات العمل
4. الحظ
الجزء الثاني

اشتركت على ملء الجزء الأول من هذه الاستمارة وارجوان تتكرم بملء الجزء الثاني منها والذي هو عبارة عن معلومات شخصية، سوف تستخدم لغايات البحث العلمي فقط، ولن يطلع عليها أحد في المستشفى الذي تعملون فيه أو أي مسؤول آخر.

1. ذكر
2. أشي

(32) الجنس

1. مسلم
2. مسيحي
3. غير ذالك عدد

(33) الدين

1. إرثية
2. عربية
3. فلبينية
4. سيراليونية
5. غير ذالك عدد

(34) الجنس

1. أغلب من 18 سنة
2. من 18-28 سنة
3. من 29-39 سنة
4. من 40-49 سنة
5. من 50-59 سنة
6. أكثر من 60 سنة

(35) العمر

1. عازب/عذبة
2. متزوج
3. أرمل
4. مطلق

(36) حال العائلة

1. حجم العائلة (استثني نفسك)
2. من 3-5 أشخاص
3. من 6-8 أشخاص
4. أكثر من 9 أشخاص
5. غير ذالك عدد
(38) الدخل السنوي
1. أقل من 500 دينار
2. من 500-1000 دينار
3. من 1000-2000 دينار
4. من 2000-3000 دينار
5. من 3000-4000 دينار
6. غير ذلك عدد

(39) عدد الموظفين في العائلة (استثنى نفسك)
1. موظف وحد
2. من 2-3 موظفين
3. من 4-5 موظفين
4. أكثر من 6 موظفين
5. لا أحد

(40) التخصص
(41) التعليم
1. أقل من الثانوية العامة
2. الثانوية العامة
3. البكالوريس
4. ماجستير
5. دبلوم
6. بكالوريس

(42)كم لكل الديون في هذه اللونه بشكل عام
سنوات ________ أشهر ________

(43)كم لكل الديون في هذا اللون في هذا المستحق
سنوات ________ أشهر ________

(44) المرتب
1. غير مصنف
2. مصنف درجة 6-10
3. مصنف درجة 4-7
4. أقل من الدرجة 3
5. مساويا
6. عقد
7. غير ذلك عدد ________
1. مكان التخرج
2. بقية التجهيزات المقدمة
3. الراتب الهادف للدكتور
4. الراتب الفعلي للموظف
5. غير ذلك

(46) القسم
(47) عدد المسوؤلين ذوي العلاقة في عائلتك

(48) نوع المستشفى
1. حكومي
2. خاص

*** شكراً لتعاونكم ***
Appendix C

Supervisors' Questionnaire (English and Arabic Translation)
Supervisors Ratings of Nurse's Performance
In Jordanian Government and Private Hospitals.

Diab M. Al-Badayneh
P.O. Box 182171
Amman
Jordan

Please Do Not Write On the Instrument

Performance Rating Questionnaire
Directions:
The attached questionnaire is concerned with the supervisors ratings of nurses' job performance. Please complete the following survey as honestly as you can. I am particularly interested in your response because your response will contribute significantly toward solving some of the problems facing health field. Other phases of this research will not be carried out until we complete the analysis of the data.

To complete the survey WRITE the number on the answer sheet that most closely reflects your thoughts about every nurse's performance on each item. If you WRITE # 1 it means that you think that nurse's performance on the aspect you are rating was extremely low, but if you WRITE # 20 it means you think that nurse's performance on the aspect you are rating was extremely high. WRITE a number between 1 and 20 to reflect what you think the nurse's performance was on each item.

I would welcome any comments you may have concerning any aspect of the health care not covered into the questionnaire.

Thank you for your cooperation.

Sincerely,

Diab M. Albadayneh

Part 1
Performance Rating Questionnaire

How would you rate nurses' job performance (yesterday only) on a 20-point continuum where 1 denotes an extremely low performance and 20 denotes an extremely high performance.

Example: (1) Technical Competence: I rate ....... technical competence for yesterday on a scale from (1 to 20) 12. Please answer the following questions using the same format for every nurse. Use one answering sheet for every nurse.

<table>
<thead>
<tr>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>10</td>
<td>15</td>
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<tr>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

(1) Technical competence
(2) Ability to organize and schedule work loads
(3) Skills in planning nursing care
(4) Acceptability of completed work
(5) Attendance and promptness
(6) Observance of rest and lunch periods
(7) Amount of work performed
(8) Completion of work on schedule
(9) Adaptability in emergencies
(10) Quality of work (e.g., lack of errors)
(11) Dependability
(12) Willingness to perform duties
(13) Observance of rules and regulations
(14) Effort applied
(15) Accepting responsibility for own behavior
(16) Making a high impression on visitors
(17) Personal appearance
(18) Skill in communications
(19) Overall effectiveness

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For each item listed below WRITE the number between 
(1 = extremely low and 20 = extremely high) that 
reflects your thoughts about the following items:

(20) Overall satisfaction with work  
(21) Satisfaction with pay  
(22) Satisfaction with co-workers  
(23) Satisfaction with nurses  
(24) Satisfaction with Job security  
(25) Satisfaction with opportunity for advancement  
(26) Satisfaction with working hours  
(27) Satisfaction with working conditions  
(28) Satisfaction with benefits (e.g., housing)  
(29) Consideration to leave your present job  
(30) Likeness of the nurse being evaluated  
(31) Familiarity with the nurse's performance  

(32) For items which you gave the nurse high performance ratings, to 
what extent is that ratings due to the items listed below 
(1 = low, 20 = high):

1. Ability  
2. Effort  
3. Job simplicity  
4. Luck  

(33) For items which you gave the nurse low performance ratings, to 
what extent is that ratings due to the items listed below 
(1 = low, 20 = high):

1. Ability  
2. Effort  
3. Job difficulty  
4. Luck  

Part.2 (Please answer part 2 only one time)
Now I'd like to ask you few questions about your background. This information will be used only by the researcher and will not be available to anyone in your hospital.

(34) Sex  
1. Male  
2. Female  

(35) Religion  
1. Muslim  
2. Christian  
3. Other ___  

(36) Nationality  
1. Jordanian  
2. Arabian  
3. Philippines  
4. Sri Lanka  
5. Other, specify ___  

(37) Age  
1. Under 18  
2. 18-29  
3. 30-39  
4. 40-49  
5. 50-59  
6. Over 60  

(38) Marital Status  
1. Never Married  
2. Married  
3. Widowed  
4. Divorced  

(39) Family Size  
1. Two persons  
2. 3-5 persons  
3. 6-8 persons
4. 9-11 persons
5. Other, specify

(40) Annual Income
1. Less than JD 500
2. JD 500-999
3. JD 1000-1999
4. JD 2000-2999
5. JD 3000-3999
6. Other, specify JD

(41) Number of wage earners in Family
1. One person
2. 2-3 persons
3. 4-5 persons
4. More than 6 persons
5. No one

(42) Specialty __________________

(43) Education
2. Less than high school
3. High school
4. Diploma in
5. B.A. in
6. MA in

(44) How long have you been in this profession?
Years_______Months_____

(45) How long have you been in this job at this hospital?
Years_______Months_____

(46) Rank
1. Contract
2. Daily wages
3. Entry level workers
4. Rank 10-8
5. Rank 7-4
6. Rank 3-1
7. Other, specify

(47) Training Institution
   1. Jordanian School of Nursing
   2. Irbed School of Nursing
   3. Zarqa School of Nursing
   4. Jordan University College of Nursing
   5. Other, Specify

(48) Department
(49) Number of employees under your supervision

(50) Hospital Type
   1. Government Hospital
   2. Private Hospital

****Thank You For Your Time ****
لا يتم تحمير نص الرسالة المذكورة.

يرجى عدم الكتابة على الاستمارة.
التعليمات

تهدف الاستمارة المرفقة إلى معرفة تقدير المشرف/المشرف الشخصي
لإداء الممرض/المرضى الوظيفي في اليوم المنصرم. لكي تجيبي على
استمارة هذه الاستمارة، أختر رقم بين 1 و 20 والذي تعتقد أنه يمثل
تقديرك الشخصي لإداء الممرض/المرضى الوظيفي في اليوم المنصرم.

حيث يعني الرقم 1 إداء متفاوت جداً ويعني الرقم 20 إداء عالي جداً.

أدخل جميع الفقرات بنفس الطريقة المستخدمة ورقه الإجابات المرفقة.

إن اختيار أي رقم بين 1 و 20 يعتمد على تقديرك الشخصي لإداء
الممرض/المرضى الوظيفي على كل فقرة من الفقرات. أقر بآراءك/صاباتكم
لما لها من الأهمية في حل بعض المشكلات التي تواجه القطاع الصحي.

لذا ارجو منك هذه الاستمارة بكل دقة وأمانة؛ علماً بأن إجابتك ستعمل
بسرية تامة وسوف تستخدم لأغراض البحث العلمي فقط.

شكرًا، نحن بحاجة تعاونكم.

الباحث

ملخص

ذيا البديانة
الجزء الأول

تتمثل الفقرات المدرجة أدناه جوانب الأداء الوظيفي بشكل عام، على مقياس من 1-20 قدر أداء الممرض/المرشح الوظيفي على ضل جانب من هذه الجوانب. حيث يمثل الرقم 1 الأداء المنخفض ويُمثل الرقم 20 الأداء العالي. مثال: (1) الكفاءة الفنية: اقترض كفاءة الممرض (المرشح) الفنية للممرض المنصرم على مقياس (1-20) بـ 12. احمل بقيمة الاستمالة بنفس الطريقة لكل ممرض وممرضة ممن تقوم بالاشراف عليهم مستخدراً أوراق اجابة لكل واحد منها.

<table>
<thead>
<tr>
<th>الأداء المنخفض</th>
<th>الأداء العالي</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
</tr>
</tbody>
</table>

(1) الكفاءة الفنية (الفنية)
(2) القدرة على تنظيم وجدول أعباء العمل (اليومي)
(3) المهارات في تخطيط ورعاية المرضى
(4) العمل اليومي المجز (اليوم المنصرم)
(5) الواعض على الدوام والبيئة
(6) التقيد بأوامر الأكل والاستراحات
(7) كمية العمل المجز
(8) إنجاز العمل في الوقت الكاف
(9) القدرة على التكيف في الحالات الطارئة
(10) نوعية العمل المجز (عدم وجود اختيارات)
(11) الاعتماد على النفس في العمل
(12) القدرة في إنجاز الوسائط الوظيفية
(13) التقييد في تقويم واجبات العمل
(14) الجهد المبذول في العمل
(15) تحمل المسؤولية عن السلوك الشخصي
(16) إحداث اقتصاب جيد لدى الزوار
(17) الأظهر الشخصي
(18) مهارات التواصل مع الآخرين (التفاعل)
(19) الفعالية بشكل عام
الرضى عن العمل لدى المتقاعدين

1. عدم الرضا العام ويتمثل الرقم 20 الرضا العام.

20) درجة الرضا عن العمل بشكل عام
21) درجة الرضا عن الراتب
22) درجة الرضا عن الزملاء
23) درجة الرضا عن الموظفين
24) درجة الرضا عن الأمن الوظيفي
25) درجة الرضا عن فرص التقدم في العمل
26) درجة الرضا عن ساعات العمل
27) درجة الرضا عن ظروف العمل
28) درجة الرضا عن ميزات العمل (من مثل الإسكان)
29) درجة احتماله ترك العمل الحالي

30) علا الفترات التي قدرت عليها اداء الممرض/المرضية عالية، إلى درجة

تعزو هذا التقدير إلى كل من الفترات التالية: (اختيار رقم بين 1 وال 20).
والذي يمثل تقييمك حسب 1. منخفض و 2. عالي

1. القدر الشخصي
2. الجهد المبذول
3. سهولة العمل
4. الحظ

31) علا الفترات التي قدرت عليها اداء الممرض/المرضية بمنخفض، الى

degree تعزو هذا التقدير إلى كل من الفترات التالية: (اختيار رقم بين 1 وال 20).
والذي يمثل تقييمك حسب 1. منخفض و 2. عالي

1. القدر الشخصي
2. الجهد المبذول
3. صعوبة العمل
4. الحظ

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الجزء الثاني: المعلومات الشخصية الخاصة بالمسئولين

اشكركم على ملء الجزء الأول من هذه الاستمارة. وإن كان إجراء تكرار بملء
الجزء الثاني منها والذي هو مبادرة عن المعلومات الشخصية، سوف تستخدم
لغات البحث العلمي فقط، ولكن يطبع عليها أحد في المستشفى الذي يعملون
فيه أو أي مسؤول آخر.

(32) الجنس
1. ذكر
2. أنثى

(33) الطين
1. مسلم
2. مسيحي
3. غير ذلك عدد

(34) الجنس
1. أردني
2. عربي
3. فلبيني
4. سيباليكي
5. غير ذلك عدد

(35) العمر
1. أقل من 18 سنة
2. من 18-20 سنة
3. من 20-29 سنة
4. من 49-59 سنة
5. من 50-59 سنة
6. أكتر من 60 سنة

(36) الحالة العائلية
1. عازب/عذباء
2. متزوج
3. ارمل
4. مطلق

(37) حجم العائلة (استثنى نفسك)

1. أثنا
2. من 3-5 أشخاص
3. من 6-8 أشخاص
4. أكثر من 8 أشخاص
5. غير ذلك عدد

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(38) الدخل السنوي
1. أقل من 500 دينار
2. من 500-1000 دينار
3. من 1000-2000 دينار
4. من 2000-3000 دينار
5. من 3000-4000 دينار
6. غير ذلك عدد

(39) عدد الموظفين في العائلة (استثني نفسك)
1. موظف واحد
2. من 2-3 موظفين
3. من 4-5 موظفين
4. أكثر من 6 موظفين
5. لا أحد

(40) التخصص

(41) التعليم
1. أقل من الثانوية العامة
2. الثانوية العامة
3. الثانوية العامة
4. دبلوم في
5. بكالوريس في
6. ماجستير في

(42) كم لك من الخبرة في هذه المهنة بشكل عام
سنوات_________ أشهر_________

(43) كم لك من الخبرة في هذا المستوى في هذا المستوى
سنوات_________ أشهر_________

(44) المرتب
1. غير مصنف
2. مصنف درجة 8-10
3. مصنف درجة 4-7
4. أقل من الدرجة 3
5. مياومة
6. عقد

7. غير ذلك عدد
1. مكان التخرج
2. عدد الممرض والقبالة
3. عدد الرقى للممرض والقبالة
4. عدد الممرضات الجامعة الأردنية
5. غير ذلك عدد

(46) التمرين

(47) عدد الموظفين الذين تشرف عليهم

1. حكومي
2. خصوصي

$\text{شكراً لتعاونكم}$
Appendix D

Patients' Questionnaire (English and Arabic Translation)
Patient’ Satisfaction and Ratings of Nurses' Performance and in Jordanian Government and Private Hospitals.

Diab M. Al-Badayneh
P.O. Box 182171
Amman
Jordan

Please Do Not Write On the Instrument
Dear

This study is concerned with how patients would rate nurses' performance and to what extent they are satisfied with the services provided in the governmental and private hospitals. Please take a few minutes to answer the following questions, because it will contribute significantly toward solving some of the problems facing the health care field.

I would welcome any comments you may have concerning any aspect of the health care not covered in the questionnaire.

Thank you very much

Sincerely,

Diab M. Albadayneh
Part 1

Performance Rating Questionnaire

How would you rate nurses' performance (yesterday only) on 20-point continuum where 1 denotes an extremely low performance and 20 denotes an extremely high performance. Example: (1) Technical Competence: I rate ... technical competence for all nurses on a scale from (1 to 20) 12. Please answer the following questions using the same format for every nurse who served you yesterday. Use one answering sheet for every nurse.

Low       High

1 ______ 5 10 15 20

(1) Technical competence
(2) Ability to organize and schedule work loads
(3) Skills in planning nursing care
(4) Acceptability of completed work
(5) Attendance and promptness
(6) Observance of rest and lunch periods
(7) Amount of work performed
(8) Completion of work on schedule
(9) Adaptability in emergencies
(10) Quality of work
(11) Dependability
(12) Willingness to perform duties
(13) Observance of rules and regulations
(14) Effort applied
(15) accepting responsibility for own behavior
(16) Making a high impression on visitors
(17) Personal appearance
(18) Skill in communications
(19) Overall effectiveness
Part 2

Patient Satisfaction Questionnaire

Directions:
This section is interested in your opinion about the services you have received at the __________ hospital. We are interested in your honest opinions, whether they are positive or negative. Please answer all questions, using the enclosed answering sheet. Write the number on the answer sheet which corresponds to your answer.

(20) How would you rate the quality of service you received?

4 3 2 1
Excellent High Fair low

(21) Did you get the kind of service you wanted?

1 2 3 4
No, definitely not No, not really Yes, generally Yes, definitely

(22) To what extent has the service met your needs?

4 3 2 1
Almost all of my Most of my needs Only a few of my needs have been met have been met have been met

(23) If a friend were in need of similar help, would you recommend this hospital to him/her?

1 2 3 4
No, definitely not No, I don't think so Yes, I think so Yes, definitely

(24) How satisfied have you been with the amount of help you received?

1 2 3 4
Quite dissatisfied Mildly dissatisfied Mostly satisfied Very satisfied

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(25) Have the services helped you to deal more effectively with your problem?

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<tr>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Yes, they helped a great deal</td>
<td>Yes, they helped somewhat</td>
<td>No, they really didn’t help</td>
<td>No, they seemed make things worse</td>
</tr>
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(26) In an overall, general sense, how satisfied are you with the service you received?

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<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>Mostly satisfied</td>
<td>Mildly dissatisfied</td>
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(27) If you were to seek help again would you come back here?

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<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>No, definitely not</td>
<td>No, I don’t think so</td>
<td>Yes, I think so</td>
<td>Yes, definitely</td>
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</tbody>
</table>

(28) Was your nurse usually glad to see you?

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<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Yes, definitely</td>
<td>Yes, I think so</td>
<td>No, I don’t think so</td>
<td>No, definitely not</td>
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</tbody>
</table>

(29) Does your nurse respect you as a person?

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<td>3</td>
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</tr>
<tr>
<td>No, definitely not</td>
<td>No, not really</td>
<td>Yes, generally</td>
<td>Yes, definitely</td>
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</table>

(30) Does your nurse seem to dislike you?

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<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Yes, definitely</td>
<td>Yes, generally</td>
<td>No, not really</td>
<td>No, definitely not</td>
</tr>
</tbody>
</table>

(31) Did things get worse because you came to this hospital?

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</tr>
<tr>
<td>No, definitely not</td>
<td>No, not really</td>
<td>Yes, generally</td>
<td>Yes, definitely</td>
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</table>

(32) Do you feel low as a result of coming to this hospital?

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<tbody>
<tr>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Yes, definitely</td>
<td>Yes, generally</td>
<td>No, not really</td>
<td>No, definitely not</td>
</tr>
</tbody>
</table>
(33) For items which you gave the nurse high performance ratings, to what extent is that ratings due to the items listed below (1= low, 20= high):

1. Ability
2. Effort
3. Job simplicity
4. Luck

(34) For items which you gave the nurse low performance ratings, to what extent is that ratings due to the items listed below (1= low, 20= high):

1. Ability
2. Effort
3. Job difficulty
4. Luck

Part.3

Now i'd like to ask you few questions about your background. This information will be used only by the researcher and will not be available to anyone in your hospital.

(35) Sex
1. Male
2. Female

(36) Religion
1. Muslim
2. Christian
3. Other_____

(37) Age
1. Under 18
2. 18-29
3. 30-39
4. 40-49
5. 50-59
6. Over 60

(38) Marital Status
1. Never Married
2. Married
3. Widowed
4. Divorced

(39) Family Size
1. Two persons
2. 3-5 persons
3. 6-8 persons
4. 9-11 persons
5. Other, specify

(40) Annual Income
1. Less than JD 500
2. JD 500-999
3. JD 1000-1999
4. JD 2000-2999
5. JD 3000-3999
6. Other, specify

(41) Number of wage earners in Family
1. One person
2. 2-3 persons
3. 4-5 persons
4. More than 6 persons
5. No one

(42) What department are you in

(43) Have you been in any hospital before this time?
1. Yes - how many times
2. No

(44) Have you been in any hospital for the same condition?
1. Yes - how many times
2. No

(45) Have you been in this hospital before?
1. Yes - how many times
2. No

(46) Have you been in this hospital for the same condition?
   1. Yes -how may times_____
   2. No

(47) Do you still receive medical treatment for the same condition?
   1. Yes
   2. No

(48) How long have you been in this hospital?____days

(49) Have you made out patient visits to this hospital?
   1. Yes, number of visits____
   2. No

(50) How many times have you stayed in this hospital?____

(51) Education
   1. Illiterate
   2. Less than high school
   3. High school
   4. Diploma
   5. B.A.
   6. MA
   7. Other specify____

(52) Employment Status
   1. Employed in the government
   2. Employed in the private sector
   3. I Have my own business
   4. Unemployed
   5. Not in Job Market

(53) Hospital bill will be paid by
   1. Myself
   2. Government
3. Private sector
4. Other, specify _____

(54) Hospital Type
1. Government hospital
2. Private Hospital Hospital

***Thank You For Your Time***
تقدير المرضى لأداء الممرضين والممرضات ورضاهم عن الخدمات المقدمة في المستشفيات الحكومية والخاصة في الأردن.

أعمال
ذياب البداية
من ب 182171
عمان - الأردن

يرجى عدم الكتابة على الستارة.
بعد التحية الطيبة:
تهدف هذه الدراسة إلى معرفة تقدير المرضى للإدارة الوظيفية لدى
الممرضين والممرضات مدى رضاهم عن الخدمات المقدمة في المستشفى
الحكومية والخاصة. يرجى التكرم بالإجابة على الأسئلة المرفقة أدناه
بكل دقة وموضوعية لما لها من الأهمية في حل بعض المشاكل التي تواجه
القطاع الصحي.

كما أرجو أن يلاحظوا تجاه أي جزء من هذه الاستمارة،
شكراً لكم حسن تعاونكم.

الباحث

ذيب السادة
الجزء الأول: تقدير الإيرادات لأداء الممرضين والممرضات

التعليمات: تتمثل الفقرات المدرجة ادناه في أداء الممرضين والممرضات الوظيفي لليوم المنصرم.

بشكل عام، ما هو تقديرك لأداء الممرضين والممرضات الوظيفي لليوم المنصرم؟ من 1 إلى 20. حيث يمثل الرقم 1 أداء المتدني وينتمي الرقم 20 أداء العالي. مثال: (1) الكفاءة الفنية، (2) القدرة على تنظيم وجدول عمل المريض والعمل اليومي، (3) المهارات في تخطيط ورعاية المرضى، (4) العمل اليومي المنجز (اليوم المنصرم)، (5) الالتزام بالدوام والغياب، (6) التقييم بالأعمال والاستراحات، (7) كفاءة العمل المنجز، (8) تقييم الأداء في الوقت الحدود، (9) القدرة على التكيف في الحالات الطارئة، (10) نوعية العمل المنجز (عدم وجود أخطاء)، (11) الاعتماد على النفس في العمل، (12) الرغبة في إنجاز المهام الوظيفية، (13) التقييم في قواعد واجبات العمل، (14) الجهد المبذول في العمل، (15) تحمل المسؤولية عن السلوك الشخصي، (16) إحداث انطلاقة جيد لدى الزوار، (17) المظهر الشخصي، (18) مهارات التواصل مع الآخرين (التعامل)، (19) الفعالية بشكل عام.

الإداء العالي

الإداء المنخفض

|            | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|            |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
(20) كيف تُقيِّم نوعية الخدمة التي تتقاضاها؟

ممتازة
جيدة
مقبولة
وحيدة

(21) هل تحصل على نوع الخدمة التي تحتاجها؟

بالتأكيد، نعم
ليس كما يجب
بشكل عام، نعم
بالتأكيد، نعم

(22) إلى أي مدى تلبى الخدمة القيمة الاعتيادية؟

جميع الاحتياجات
غلبة احتياجاتي
لم تلبى احتياجاتي

(23) هل توصي بهذا المستشفى إلى صديق للعلاج فيه؟

بالتأكيد، نعم
لا أعتقد ذلك

(24) إلى أي درجة انت راضي عن المساعدة التي قدمت لك؟

بشكل عام راضي
مبدئ الرضا
الحَرَّمُ راضي

(25) هل تساعدك الخدمة القيمة في التغلب على مشكلتك؟

ساعدتي كثيراً
ساعدتني إلى حد ما
لا تساعدني
الحَرَّمُ لست مساعدة
(26) هل أي درجة تأكد راضي عن الخدمات بشكل عام؟

(27) لو احتقنت أن تدخل المستشفى ثانية، هل تأتي إلى هنا؟

(28) هل يُبدي المرضى والأمرارتات سرورهم لروؤه بك؟

(29) هل يُبدي المرضى والأمرارتات احترامهم لك كشخص؟

(30) هل يُظهر المرضى والأمرارات الامتعاض لروئتك؟

(31) هل إزدادت صحتك سواءً بسبي قدومك إلى المستشفى؟

(32) هل تشعر بالجاهة كنتيجة للقدومك إلى هذا المستشفى؟
(33) على الفقرات التي قدرت عليها أداء الممرض/الممرضة بعليها، إلي درجة
تعزو هذا التقدير إلى كل من الفقرات التالية: (اختاري رقم بين 1 إلى 20)
والذي يمثل تقديرك حسب 1. منخفض و 20. عالي
1. المقدرة الشخصية
2. الجهد المبذول
3. سهولة العمل
4. الحظ

(34) على الفقرات التي قدرت عليها أداء الممرض/الممرضة بمنخفض، الي
درجة تعزو هذا التقدير إلى كل من الفقرات التالية: (اختاري رقم بين 1 إلى 20)
والذي يمثل تقديرك حسب 1. منخفض و 20. عالي
1. المقدرة الشخصية
2. الجهد المبذول
3. صعوبات العمل
4. الحظ

الجزء الثاني
اشكركم على مله الجزء الأول. من هذه الاستمارة وارجوان تنكر بمدر
الجزء الثاني منها والذي هو عبارة عن معلومات شخصية، سوف تستخدم
لغايات البحث العلمي فقط، ولن يطلع عليها احد
1. ذكر
2. اثني
1. مسلم
2. مسيحي
3. غير ذلك عدد (____)
1. من أقل من 18 سنة
2. من 18-28 سنة
3. من 29-39 سنة
4. من 40-49 سنة
5. من 50-59 سنة
6. احتر من 60 سنة
1. الحال المطلق
2. حالات العائلة
3. انزوح على الإطلاق

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2. متزوج
3. مطلق
4. اجتماع

(39) حجم العائلة (استثناء نفسي):
1. أثنا
2. من 3-5 أشخاص
3. من 6-8 أشخاص
4. أكثر من 9 أشخاص
5. غير ذلك عدد ______

(40) الدخل السنوي:
1. أقل من 500 دينار
2. من 500-1000 دينار
3. من 1000-2000 دينار
4. من 2000-3000 دينار
5. من 3000-4000 دينار
6. غير ذلك عدد ______

(41) عدد الموظفين في العائلة (استثناء نفسي):
1. موظف واحد
2. من 2-3 موظفين
3. من 4-5 موظفين
4. أكثر من 6 موظفين
5. لا أحد

(42) في أي قسم تتعامل الآن ______

(43) هل سابق أن دخلت أي مستشفى قبل هذه المرة
1. نعم - حجم عدد هذه المرات ______
2. لا _______________________

(44) هل سابق أن دخلت أي مستشفى لنفس المرض
1. نعم - حجم عدد هذه المرات ______
2. لا _______________________

(45) هل سابق أن دخلت هذا المستشفى قبل هذه المرة
1. نعم - حجم عدد هذه المرات ______

لا
(46) هل سبق أن دخلت هذا المستشفى لنفس المرض
1. نعم - ضع عدد هذه اليرات
2. لا
(47) هل لا زلت تتعقى العلاج لنفس الحالة
1. نعم
2. لا
(48) كم مضى لك من الاقامة في هذا المستشفى
(49) كم عدد الزيارات الخارجية قبل دخول المستشفى
(50) كم عدد الولات التي دخلت فيها هذا المستشفى

(51) التعليم
1. امي
2. أقل من الثانوية العامة
3. الثانوية العامة
4. دبلوم
5. بكالوريس
6. ماجستير
7. غير ذلك عدد

(52) العمل
1. اعمل في القطاع الحكومي
2. اعمل في القطاع الخاص
3. اعمال حر
4. لا اعمل
5. غير قادر على العمل

(53) من سيقوم بدفع تكلفة الاقامة والعلاج في المستشفى
1. عل نفقاتي الخاصة
2. على نفقه الحكومة
3. على نفقه القطاع الخاص
4. غير ذلك حدد

(54) نوع السكن:
1. حكومي
2. خاصي

شكرًا لتعاونكم
Appendix E

Human Subjects Institutional Review Board Approval
Date: February 2, 1990
To: Diab M. Albadayneh
From: Mary Anne Bunda, Chair

This letter will serve as confirmation that your research protocol, "Nurses Performance and Patients' Satisfaction in Jordanian Governmental and Private Hospitals", has been approved under the exempt category of review by the HSIRB. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the approval application.

You must seek reapproval for any changes in this design. You must also seek reapproval if the project extends beyond the termination date.

The Board wishes you success in the pursuit of your research goals.

cc: S. Sonnad, Sociology

HSIRB Project Number 89-07-13
Approval Termination February 2, 1991
Appendix F
Permission Letters
March 7, 1989

Diab M. Albadayneh
Department of Sociology
Western Michigan University
Kalamazoo, MI 49008

Dear Mr. Albadayneh,

Thank you for your letter requesting permission to translate my instrument that appeared in Personnel Psychology (1982, 35: 634-652) into Arabic. I am more than happy to grant you that permission. My only request is that you cite the article in subsequent publication using the instrument, and I would like to receive a copy of the translated instrument. Best of luck on your research.

Sincerely,

Raymond F. Zammuto
Associate Professor of Management
The attached reprints are enclosed with my compliments. Thank you for your interest in my research.

2/10/87

Mr. Albakuneh —

You have my permission to translate the CSF and use it in the manner you discussed in your letter dated 1/23/87. This permission does not constitute a transfer of copyright in English or any other language. We retain the copyright and that should be clearly stated on any document containing your translation. Clifford Attkisson, Ph.D.
Appendix G
Cover Letters
Dear Registered Nurse:

The attached questionnaire is concerned with the nurses' self-ratings of performance. Please complete the following survey as honestly as you can. I am particularly interested in your response because it will contribute significantly toward solving some of the problems facing the health field. Other phases of this research will not be carried out until we complete the analysis of these data.

Your responses are confidential, no one will have access to your answers. Your name is not required for this study to conceal your identity. Finally, you have the right not to participate in this study and no one will ask you for the reason, however, your participation is highly appreciated.

I would welcome any comments you may have concerning any aspect of the health care not covered into the questionnaire. I will collect both the instruments and the answer sheets after approximately one hour.

Thank you for your cooperation.

Sincerely

Diab M. Albadayneh
Dear:

The attached questionnaire is concerned with the supervisors' ratings of nurses' job performance. Please complete the following survey as honestly as you can. I am particularly interested in your response because your response will contribute significantly toward solving some of the problems facing health field. Other phases of this research will not be carried out until we complete the analysis of the data.

To complete the survey WRITE the number on the answer sheet that most closely reflects your thoughts about every nurse's performance on each item. If you WRITE # 1 it means that you think that nurse's performance on the aspect you are rating was extremely low, but if you WRITE # 20 it means you think that nurse's performance on the aspect you are rating was extremely high. WRITE a number between 1 and 20 to reflect what you think the nurse's performance was on each item.

I would welcome any comments you may have concerning any aspect of the health care not covered into the questionnaire.

Thank you for your cooperation.

Sincerely,

Diab M. Albadayneh
Dear____

This study is concerned with how patients would rate nurses' performance and to what extent they are satisfied with the services provided in the governmental and private hospitals. Please take a few minutes to answer the following questions, because it will contribute significantly toward solving some of the problems facing the health care field.

Your name is not required for this study to conceal your identity. Finally, you have the right not to participate in this study and no one will ask you for the reason, however, your participation is highly appreciated.

I would welcome any comments you may have concerning any aspect of the health care not covered in the questionnaire.

Thank you very much

Sincerely,

Diab M. Albadayneh
Appendix H
General Information Instrument (Original and English Translated)
بعد التوجيه الطبي:
تهدف الاستمارة المرفق إلى مقارنة المستشفيات الحكومية والخاصة. اغدو من الأسئلة المرفقة.

(1) نوع المستشفى
   1. حكومي
   2. خاص

(2) نوع الخدمة
   1. خدمة عامة
   2. خدمة اختصاص (نوع واحد من الخدمات فقط - كالتهوية)

(3) عدد الاقسام

(4) عدد المستخدمين بشكل عام

(5) عدد الوظائف الأصناف

(6) عدد الإداريين (خاتب)

(7) عدد الاطباء اختصاص عام

(8) عدد اطباء الاختصاص

(9) عدد المرضى والمرضى القانونيين

(10) عدد مساعدين المرضى والممرضين

(11) عدد الاخصائيين (بشكل عام)

(12) عدد المواليد (بدلاً من رؤساء اقسام)

(13) سعة المستشفى (عدد الأسرة)

(14) عدد المرضى في الوقت الحالي

*** شكرًا لتعاونكم ***
To: The Director of the Personnel Department  
Dear sir:

The enclosed questionnaire aims to compare the structure characteristics of the governmental hospitals to the private hospitals. Please take a few minutes to answer the following questions.

Thank you very much

Sincerely,

Diab M. Albadayneh

(1) Hospital Type

1. Governmental Hospital  
2. Private Hospital

(2) Type of service

1. General  
2. Special (e.g., maternity)

(3) Number of departments

(4) Total Number of all employees

(5) Number of "classified" employees

(6) Total number of administrative employees (clerk)

(7) Total number of medical staff

(8) Total number of "general" doctors

(9) Total number of specialized doctors

(10) Total number of registered nurses

(11) Total number of assisted nurses

(12) Total number of specialists (general)

(13) Total number of superiors

(14) Capacity "number of beds"

(15) Total number of patients at the present time

Thank You For Your Time
Appendix I

Correlation Matrix for Performance Index Items for All Raters Combined
## Correlation Matrix for Performance Index Items for All Raters Combined

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Appendix J

Correlation Matrix for Patient Satisfaction Scale Items
Correlation Matrix for Patient Satisfaction Scale Items

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* Significant at .01 level  ** Significant at .001 level
Appendix K
Correlation Matrix for Nurses' and Supervisors' Satisfaction Scale Items
Correlation Matrix for Nurses' and Supervisors' Satisfaction Scale Items
(N=303 Registered Nurses & 65 Supervisors rated 303 Nurses)

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* Significant at .01 level  ** Significant at .001 level
### Appendix K—Continued

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* Significant at .01 level  ** Significant at .001 level
Appendix L

Multiple Correlation Comparisons
Testing Ho: $\Phi_1 = \Phi_2$ (Independent Samples)

$Z_{obt} = Z_1 - Z_2$

$\frac{\sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}{n_3}$

Where, $Z_1$ and $Z_2$ are Fisher Zs transformation associated with $r_1$ and $r_2$ and $n_1$, $n_2$ and $n_3$ are sample size associated with $r_1$ and $r_2$.

Multiple Comparison

Testing Ho: $\Phi_a = \Phi_{b\ldots j} = \Phi_j$ (Independent Samples)

$Z_{obt} = Z_i - Z_j$

$\frac{\sqrt{\frac{1}{n_i} + \frac{1}{n_j}}}{n_3}$

Where, $Z_i$ ....to $Z_j$ are Fisher Zs transformation associated with $r_1$ ....to $r_j$ and $n_1$ and $n_2$ are sample size associated with $r_i$ and $r_j$.

$\sum (n-3)z^2 - \sum (n-3) = \kappa^2$

$\sum (n-3)$

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