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DETERMINANTS OF JOB SATISFACTION OF DOCTORS AND NURSES IN ORGANISED SETTINGS (HOSPITALS AND HEALTH CENTRES) IN MUSCAT GOVERNORATE, SULTANATE OF OMAN

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ABSTRACT

Oman has inadequate health manpower, particularly doctors and nurses, as evident from the limited prospect for Omanization (employment of Omani nationals). Medical services in Oman have relied primarily on the recruitment of expatriate doctors and nurses from several countries. The solution to the present shortage in health professionals (doctors and nurses) is complex, but if we identify those factors that health professionals perceive as negative, because they contribute to dissatisfaction and turnover, possible interventions to improve working conditions may be developed. Therefore, this study aimed to examine the factors affecting job satisfaction of doctors and nurses, including differences in those factors related to nationality (Omani and non-Omani) and organisations. Three hospitals and three primary care health centres in Muscat Governorate were selected for the study. Job satisfaction was explored qualitatively via focus group interviews and quantitatively, using survey questionnaires. The job satisfaction questionnaires were based mainly on the instrument developed by Stamps et al. (1978). Factor analysis was employed to ascertain factors underlying job satisfaction.

Several organisational and job-related factors were found to influence job satisfaction of both doctors and nurses: relationships with colleagues and teamwork, professional status, relationship with patients, administration, workload, pay, promotion, working conditions and medical stress. Doctors' job satisfaction was statistically significantly associated with their age, marital status, designation, work experience and weekly working hours. Nurses' job satisfaction was statistically significantly associated with their total years of work experience in Oman. There was a statistically significant difference in job satisfaction between Omani and non-Omani

doctors. Additionally, there were statistically significant differences in job satisfaction between doctors/nurses working in different organisations.

The findings suggest a need to re-evaluate salary scales, reward loyalty and performance with promotion, improve the management skills of medical and nursing administrators, improve the on-call schedules for doctors and reduce the non-nursing tasks for nurses. They also indicate a need to improve the quality and availability of postgraduate training programmes for doctors.

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CHAPTER ONE

INTRODUCTION

1.1. Introduction

Job satisfaction has been defined as a complex, multidimensional issue, important for the well-being of individuals and organisations. For health care organisations particularly, which are responsible for the delivery of quality care, job satisfaction of health care providers is an issue of major concern.

The rapid changes in medical practice over the last quarter century have stimulated considerable interest in measuring health professionals' perceptions and attitudes about their work (Baker et al., 1993). Most studies have examined doctor satisfaction and its impact on various doctor outcomes. The evidence is fairly strong in terms of doctor turnover. A consistent finding in the research literature is that organisations with higher levels of doctor dissatisfaction also have higher doctor turnover rates. This finding is important because of its implications for organisational effectiveness. As Liechtenstein (1984b) points out:

“The task of retaining physicians is a crucial one, not only because the organisation must maintain its own stability and predictability, but also because the organisation must seek to maintain the stability of the doctor-patient relationship and the continuity of care provided by physicians to patients” (p. 166).

Dissatisfied doctors may also have more costly practice styles. Several studies have found that dissatisfied doctors use more total outpatient procedure and make more referrals than doctors who are satisfied, even after adjusting for case-mix and other covariates (Eisenberg, 1986 and Freeborn et al., 1984). Whether these differences affect outcomes is unclear, but greater resource use by doctors certainly increases the cost of care.

Some studies also suggest that doctor job dissatisfaction has been associated with lower levels of patient satisfaction, and decreased patient compliance with prescribed medications and follow-up appointments (Linn et al, 1985a; Liechtenstein, 1984b; Buller et al., 1987 and DiMatteo et al., 1993). The evidence is weaker regarding the relationship between doctor satisfaction and quality of care, but a few studies have found that doctors' dissatisfaction can adversely affect quality (DiMatteo et al., 1993). Dissatisfaction with professional work among doctors has also been associated with inappropriate prescribing patterns (Melville, 1980).

In nursing, in recent years, a considerable amount of research has been carried out in order to understand the phenomenon of job satisfaction, to identify factors that influence it and to determine its relationship with such outcomes as staff turnover and stress. Cavanagh (1992 a, b) suggests three main reasons why job satisfaction in nursing constitutes a vital area of study:

- First, nursing is a very stressful job and therefore intrinsic satisfaction can act as a counterbalance by providing moments of reward.
- Second, job satisfaction can potentially influence patient care; when nurses are satisfied with their work, patients are more likely to be satisfied with the care they receive (Cavanagh, 1992 a).
- Third, job satisfaction has implications for organisational issues, particularly those relating to job turnover and staff morale.

The lack of research on job satisfaction of health professionals (doctors and nurses) in Oman, together with the personal interest of the researcher, himself a doctor, have prompted the undertaking of this study, inquiring into sources of satisfaction and dissatisfaction in these demanding fields of medicine and nursing.

1.2 Historical Background

This historical review includes a background of the Omani Health Care System and medical and nursing workforce development. This review will enhance the understanding of the problem under study and its significance.

Health Care System in Oman

The Sultanate of Oman has recently reached a distinct landmark in the health sector. The Ministry of Health has been trying to elevate the standards of health care in the country through developing a health system infrastructure, based on the principles of rationalisation and a referral chain and recruiting a large army of expatriate doctors and nurses and other health professionals.

For a country that only thirty years ago hardly had any health care worthy of the name, the achievements of Oman in the development of its health services are outstanding. In 2000 the World Health Organisation (WHO) hailed the Sultanate's excellent health achievements and placed it 8th with regard to providing comprehensive health care at world level. It was also ranked in the first position at world level for health system efficiency and good utilisation of financial resources in health services, in an analysis of 191 countries worldwide (Ministry of Information, 2000).

In Oman, health care is a right for every citizen. Health care services are provided free of charge by the government. The Omani health care system is also characterised by its emphasis on primary health care that is provided by a network of health centres throughout the country. The Ministry of Health (MOH) is the main provider of health care services in the Sultanate and it has 81.9% of the total health manpower (Ministry of Health, 1998). Other governmental health care providers which include the Ministry of Defence, Royal Oman Police (ROP), Petroleum Development Oman (PDO) and Sultan

Qaboos University (SQU) also provide health care, but mainly for their employees and dependents. The University Hospital also provides both secondary and tertiary care for the general population. These non- MOH governmental health care providers are located in the Muscat region. Furthermore, there is a growing private health care industry that operates on a for-profit-basis. The distribution of doctors and nurses in the various sectors is presented in Table 1.1.

The major difference between MOH institutions and other governmental health care providers is the salary and promotion system. The MOH is under the rules of the Civil Service while the other governmental health care providers have their own rules and budgets. The other governmental health care providers offer better chances for promotion and higher salaries, especially for doctors and nurses at lower ranks in comparison to MOH.

Table 1.1: Doctors and Nurses Working in MOH, Other Governmental Agencies and the Private Sector in the Sultanate of Oman, 1998

Category	MOH		Governmental Non-MOH*		Private Sector	
	Number	%	Number	%	Number	%
Doctors	2099	68.6	199	6.5	763	24.9
Nurses	6365	85.4	596	8.0	492	6.6

*Includes Royal Oman Police Hospital, PDO and Sultan Qaboos University Hospital
Source: MOH Annual Statistical Report (1998)

Hospitals and Health Centres

In 1970 the average life expectancy was under 50 years; today it is over 70. At that time there was only one small hospital in Muscat, whereas now there are 47 hospitals, 13 of which are considered referral hospitals. The total bed capacity has increased to 4443 beds. In addition there are 116 health centres for primary care, of which 57 have maternity beds and seven are extended health centres (Ministry of Information, 2000).

The MOH provides health services to all the people of Oman through its health institutions. Table 1.2 shows the distribution of health institutions among the health regions in the Sultanate.

The types of health institutions run by the MOH may be broadly described as follows:

- 1) **Regional Hospital:** A hospital that provides secondary and tertiary care to inhabitants of the health region in which it is located. It is usually built in the centre of a health region and is considered as a referral hospital for critical cases from other hospitals and health centres of the health region. Regional hospitals of the Muscat region act as national referral hospitals for critical cases from other regional hospitals. These are the Royal Hospital (all major specialties), Al Nahdha Hospital (dermatology, ENT and ophthalmology), Khoula Hospital (rehabilitation centre) and Ibn-Sina Hospital (psychiatry).
- 2) **Wilayat Hospital:** A hospital that provides both primary and secondary health care to inhabitants of the wilayat in which it is located and those of nearby wilayats.
- 3) **Local Hospital:** A small hospital that provides primary health care services to inhabitants in nearby villages. In addition, it provides inpatient services to those patients who are in need of continuous medical care and/or observation.
- 4) **Health Centre:** A health centre provides primary health care to the people in the surrounding catchment area.

Table 1.2: Geographical Distribution of MOH Health Institutions, 1998

Region	Hospitals			Health Centres
	Regional	Wilayat	Local	
Muscat	4*	0	2	16
Dhofar	1	0	4	28
Ad Dakhliyah	1	2	3	12
North Ash Sharqiyah	1	1	4	8
South Ash Sharqiyah	1	1	2	12
North Al Batinah	1	1	3	11
South Al Batinah	1	0	4	8
Adh Dhahirah	1	1	3	12
Musandam	1	0	2	3
Al Wusta	1	0	1	6

* Regional hospitals of Muscat region act as national referral hospitals. There are also Governmental non-MOH hospitals in Muscat include Sultan Qaboos University Hospital, ROP Hospital, Armed Forces Hospital and PDO Hospital.

* Source: MOH Annual Statistical Report (1998)

Private Sector Health Care

The Ministry of Health supports and encourages the opening of hospitals and clinics in the private sector. In 1999, there were two private hospitals and 491 private clinics in the Sultanate. The first private hospital was opened in Salalah in 1995. In November 1996 the first consultant-based private hospital with 30 beds, built to international standards, was opened at Shatti al-Qurum/Muscat (Ministry of Information, 2000).

Medical and Nursing Workforce

The rapid growth of health care services has created an increasing demand on medical manpower. During the last three decades, the number of doctors and nurses working in Oman has increased dramatically (see Table 1.3). Today, there is one doctor for every 740 and one nurse for every 308 people living in Oman (MOH, 1999).

Table 1.3: Doctors and Nurses in the Sultanate of Oman Over the Past Years*

Category	1970	1975	1980	1985	1990	1995	1996	1997	1998
Doctors	13	147	514	958	1441	2477	2592	2815	3061
Nurses	0	450	1096	2288	4147	6036	6545	6822	7453

* Does not include data of Armed Forces Medical Services

* Source: MOH Annual Statistical Report (1998)

The capital region (Muscat) with 31% of the Sultanate's population has 29% and 35% of the MOH doctors and nurses respectively. However, considering the fact that the Royal Hospital and other referral hospitals located in the Muscat Region receive at least 40% of their inpatients from outside the region, it may be inferred that truly there is no over-concentration of MOH doctors and nurses in the capital city (see Table 1.4). There are other governmental non-Ministry of Health health institutions located also in Muscat Region (see Table 1.5).

Table 1.4: Distribution of Doctors and Nurses Among MOH Institutions In Muscat Region

Category	MOH Institutions In Muscat Region							Total
	Regional Hospitals				Local Hospitals		Health Centres	
	Royal Hospital	Khoula Hospital	Al Nahdha Hospital	Ibn Sina Hospital	Al Rahma Hospital	Qurayat Hospital		
Doctors	245	98	160	13	4	15	69	604
Nurses	1093	214	661	80	23	27	152	2250

Table 1.5: Distribution of Doctors and Nurses Among Non-MOH Institutions in Muscat Region

Category	Governmental non-MOH Institutions in Muscat				Private Sector	Total
	Sultan Qaboos University Hospital	Royal Oman Police Hospital	Petroleum Development Oman (PDO)	Armed Forces Hospital	Al Shatti Hospital	
Doctors	152	39	8	*	22	221
Nurses	491	68	33	*	32	624

* No data available

* Source: MOH Annual Statistical Report (1998)

With the increased efforts to train and subsequently employ Omani nationals in place of expatriates, the proportion of nationals among medical staff has been increasing slowly but surely. At the end of December 1999, there were 297 Omani doctors and nearly 2000 nurses employed by the MOH, representing 15% and 26% of the total doctors and nurses respectively (Ministry of Information, 2000). Most MOH Omani doctors work in the Muscat Region with the majority in the Royal Hospital.

Training of Medical Staff

Medical services in Oman have relied primarily on the recruitment of expatriate doctors from several countries, but with the establishment of medical education in Oman in 1986, the number of Omani trained doctors has been slowly increasing. The duration of undergraduate medical education in the College of Medicine at Sultan Qaboos University (SQU) is seven years. Currently, there are 596 Omani doctors under training in the College of Medicine (Ministry of Information, 2000). These data indicate that the proportion of Omanis in health manpower will not increase dramatically in the near future. One of the obstacles to increasing the number of Omani doctors is the limited capacity of the medical school. Therefore, the Omanization (employment of Omani nationals) of the medical profession in the foreseeable future will be limited, unless the intake in the College of Medicine is raised adequately and /or sufficient financial allocation is forthcoming for sending Omanis for medical education abroad.

Currently there are some difficulties in recruiting highly qualified foreign doctors, as their availability is limited. Further, dependence on expatriate doctors to run the health care services of a country creates problems because of differences in social and cultural background, language difficulty, and lack of continuity of care. Therefore, establishment of successful residency training programmes in various specialisms is needed. Postgraduate medical education until recently has been available only outside

the country. The Oman Medical Specialty Board (OMSB) started in 1994. The training programmes supervised by the OMSB are now available in several Omani hospitals in a joint effort of the medical school, MOH, and other governmental agencies. The training programme is four to five years in duration. The Board's activities include giving courses and holding examinations for foreign certification programmes available to doctors in Oman, such as MRCP (Membership in the Royal College of Physicians).

Medical education in the Sultanate of Oman needs to be toned up further by steps such as: increasing intake for the undergraduate degree programme (through SQU or overseas institutions), introduction of training grades, increased financial allocation for overseas fellowships, provision of teaching allowances to selected MOH medical educators, continued expansion/modernization of MOH hospitals, standardisation of teaching requirements for clinical practice, continued efforts for accreditation of residency training programmes and coordinated academic and health services planning.

The Ministry of Health is responsible for eleven nursing institutes distributed throughout all health regions, currently training 1280 Omani nurses. Since 1984, 2016 nurses have graduated from these institutes, of whom 1560 (77%) are women. There are 32 nursing graduates who have been sent abroad to obtain degrees qualifying them to join the teaching staff of the institutes on their return (MOH, Annual Statistical Report, 1998).

1.3. Statement of the Problem

Oman has inadequate manpower production capacities, as evident from the limited prospect for Omanization (employment of Omani nationals) in the medical doctor category in the near future, and moderate levels (under 26%) of Omanization in the staff nurse category. In addition, there is a need to achieve improved efficiency and quality in health care delivery because of raised client expectations (Ministry of Health, 1996-2000). Also, health care costs are rising faster than those of other sectors in the economy, while resources are shrinking.

Job satisfaction of doctors and nurses is of primary concern to employers in health services. The focus on limiting cost by decreasing turnover rates and increasing productivity has been the driving force. Not only is replacing a doctor or a nurse costly, but turnover of doctors or nurses also affects quality of care.

Researchers in medicine and nursing have been quite active in examining the medical and nursing professions regarding job satisfaction. Yet, most of the research limits its focus to differences in the level of satisfaction among different groups within medicine or nursing. The problem with this body of literature, as with much of the research regarding health professionals, is that it tends to focus on a select group of people, thus limiting the possibility of generalising conclusions to the broader field of health professionals. In fact, most of the literature dealing with doctors' satisfaction, for example, uses a select group of doctors, usually a single speciality group (Cartwright, 1978; McCranie et al, 1982; Lichtenstein, 1984a; Linn et al., 1985b; Anderson et al, 1988; Kravitz et al, 1990; Siu and Beck, 1990). The samples vary from academic doctors to neonatologists to geriatric doctors, with anticipated differences in both personal factors and environmental factors such as client characteristics and work

setting. Because researchers often conduct these projects as a tool to evaluate the success of a particular residency or medical service, the research does relatively little to illuminate possible difficulties in the practice of medicine or the possible differences between doctors in different chosen areas of practice. Rarely are findings generalisable to the broader field of medicine examined; rather, the specifics of a programme or a department are more often the focus of the research. The same is applicable to the research regarding job satisfaction in the nursing field. There is also a lack of research that assesses the levels of job satisfaction within the health field, that cuts across all disciplines (medicine and nursing, for example) in an effort to determine the motivational levels of service-oriented professionals. Furthermore, most of the studies of job satisfaction use a survey questionnaire or another method such as interviews, but very rarely do they use more than one method (triangulation).

This research proposes to remedy some of the shortcomings of the research regarding job satisfaction of health professionals (doctors and nurses). What is missing in the existing literature is a systematic examination of the job satisfaction of health professionals that cuts across the disciplines of medicine and nursing, focusing on personal factors as well as environmental and organisational factors. Doctors and nurses are involved in direct patient care and they are responsible for managing the complex production process of patient care in a “team approach”. In fact, the satisfaction or dissatisfaction of both doctors and nurses can influence the quality of care delivered to patients. Therefore, this study utilises samples of doctors and nurses from a variety of disciplines, using a multi-methods approach (triangulation) to gain a more comprehensive view of the concept of job satisfaction among health professionals (doctors and nurses).

1.4. Aims and Objectives

- a) The purpose of the study is to explore the factors contributing to job satisfaction of doctors and nurses in Oman. If problems of dissatisfaction are identified, health care organisations can respond and develop alternative practice settings to alleviate some of the job dissatisfiers and consequently increase health professionals' morale, which may be expected to impact favourably on doctor or nurse retention and improve health care services.
- b) Given the situation in Oman where most doctors and nurses are expatriates coming from different countries, the study focuses on differences between Omani doctors and expatriate doctors and between Omani nurses and expatriate nurses with respect to these factors.
- c) Differences between doctors and nurses in four groups of health institutions (Sultan Qaboos University Hospital- Sultan Qaboos University/ Ministry of Higher Education, Al- Shatti Hospital- private health sector, Royal Hospital and health centres- Ministry of Health) with regard to job satisfaction will be another focus of this study.

1.5. Research Questions

The researcher approached this study with one general question in mind:

What factors contribute to the job satisfaction or dissatisfaction of doctors and nurses in Oman?

The study focuses on the following subsets of questions:

1. How do personal factors of age, sex, marital status, number of children, availability of family members in Oman for expatriates, designation, qualifications, period worked in Oman, religion, years of experience and years

at current position relate to the levels of job satisfaction among doctors and nurses?

2. Are there any differences between Omani doctors and expatriate doctors and between Omani nurses and expatriate nurses with regard to job satisfaction (overall job satisfaction and satisfaction with each of its components such as professional status, interpersonal relationships, administration, workload and pay)?
3. Are there any differences between doctors/ nurses working in different health institutions with regard to job satisfaction (overall job satisfaction and satisfaction with each of its components such as professional status, interpersonal relationships, administration, workload and pay)?
4. Is there any relationship between job satisfaction and job-related stress of doctors and nurses in this study?

1.6. Significance of the Study

The present study is significant for several reasons. There is no study available regarding job satisfaction of doctors and nurses in Oman. Most previous studies have been carried out in the west, on a western culture and people, and different results might be obtained in different cultures such as the Omani culture. Therefore, this study offers an important contribution in this regard. In addition, this study offers an opportunity to study job satisfaction of both doctors and nurses at the same time and place, which might give a more comprehensive picture of whether the hospital environment is generally satisfying or dissatisfying. This study also uses multiple methods (triangulation): survey questionnaires and focus groups, to give more strength to the project.

In addition, job satisfaction is an index of loyalty to the organisation, attraction to the job, and the mental health of the individuals concerned. The factors that contribute to the job satisfaction of doctors and nurses are important to their performance (quality of patient care) and retention in their jobs. The study also affords the opportunity to compare findings related to job satisfaction of Omani doctors with expatriate doctors and of Omani nurses with expatriate nurses.

1.7. Definition of Terms

For the purpose of this study the following definitions of terms were operationalised.

The components of job satisfaction were defined as follows:

- 1) **Pay:** Remuneration (in Omani Riyals) and fringe benefits received for work done, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument.
- 2) **Workload:** Tasks or activities that must be done as a regular part of the job and the organisation of work with regard to the amount of time allotted to patient care and administrative work, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument.
- 3) **Administration:** Management policies and procedures put forward by the hospital and nursing administration and the communication with health personnel, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument.
- 4) **Relationships with co-workers:** Opportunities and requirements presented for both formal and informal social and professional contact during working

hours, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument, including:

- a. Teamwork
 - b. Nurse-nurse relationship
 - c. Nurse-doctor relationship
 - d. Nurse-patient relationship
- 5) **Professional status:** Generated feelings towards the profession, the skills, usefulness and status of the job, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument.
- 6) **Autonomy:** Amount of job-related independence, initiative and freedom either permitted or required in daily work activities, as measured by the Job Satisfaction Scale, a modified scale from Stamps' (1978) instrument.

Overall job satisfaction: The overall degree to which the employee is satisfied and happy in the job, as calculated by dividing the sum of the components mean scores by the number of components' comprising the scale.

Job-induced stress: A state that interacts with job related factors, as measured by the Job-Induced Stress Scale (Cooper et al., 1989) with some modifications.

Demographic data: Measures of individual difference in regard to age, sex, nationality, hospitals (employer groups), designation, qualifications, years of experience, weekly working hours for doctors, shift patterns for nurses, specialisation for doctors, and practice areas for nurses as measured by the demographic data forms developed for this study.

Doctor: One who, after graduating from a medical school, successfully passes an examination and is licensed by a state government to practise medicine (including specialist and non-specialist doctors at all positions). Because of the great variety of doctoral degrees, the use of the word doctor is sometimes confusing, so the word physician is sometimes used.

Staff nurse: Mainly responsible for providing direct patient care.

Senior nurse: One who provides direct patient care, but may also function as charge nurse. Senior nurses in this study also include supervisors, nursing officers and midwives.

1.8. Thesis Organisation

This thesis is comprised of seven chapters, including this introductory chapter. This chapter (Chapter One) has stated the problem and the importance of the study, as well as highlighting the objectives and the questions of the study. It also provides background information about the health care system in the Sultanate of Oman. It describes, in general, the health sector in Oman with special reference to the health manpower and to the health institutions in Muscat region. In Chapter Two, a review of the literature on job satisfaction is presented, the theoretical background on the concept and nature of job satisfaction is reviewed, theories of job satisfaction are explored and the different factors that have been found to influence the job satisfaction of doctors and nurses and are therefore of importance to this study are highlighted. Chapter Two also describes the different measurements used in previous research on the job satisfaction of doctors and nurses. Chapter Three describes the research methodology selected and then explains in detail the application of the methodology in the field. Chapter Four presents the results of the doctors' and nurses' surveys using descriptive statistics to

describe the demographic variables, job satisfaction profile and job-related stressors, and inferential statistics to test the hypotheses of the study. Chapter Five presents the findings from the focus group interviews. The findings are discussed and interpreted in Chapter Six. Then, in Chapter Seven, the researcher presents a conclusion and recommendations, as well as suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

The purpose of this chapter is to present a review of the literature concerning job satisfaction. The review of the related literature and research is organised into four sections. The first section contains a review of the concept and nature of job satisfaction. In the second section, a review of the theories of job satisfaction is presented. The third section consists of three parts, the first of which examines the research dealing with determinants of job satisfaction in general, the second reviews studies on determinants of doctors' job satisfaction, and the third reviews determinants of nurses' job satisfaction. The fourth section is devoted to the measurement of job satisfaction. This review does not include any reference to previous studies on satisfaction of doctors and nurses in Oman, because no such studies have been performed or published.

2.2. Concept and Nature of Job Satisfaction

To understand job satisfaction among doctors and nurses, it is important to distinguish the conditions and situations of medicine and nursing. Medicine and nursing have stressors, organisational settings and societal expectations that may be unlike those of other occupations. One might, however, acknowledge that medicine and nursing in many ways have characteristics that make them like other occupations. Therefore, it is useful first to understand those characteristics that explain satisfaction in any job. It is appropriate to begin by examining in general, the concept and nature of job satisfaction.

Job satisfaction is a multi-dimensional concept (see, for example, Dunnette et al., 1967; Locke, 1969; Nord, 1977). It has continued to prove an elusive concept for precise definition. Many writers discuss it at length but, if pressed to explain exactly what they mean, find it difficult to provide an acceptable definition. Hoppock (1935) offered one of the oldest and perhaps the simplest definitions of job satisfaction: "any combination of psychological, physiological, and environmental circumstances that cause a person to truthfully say, 'I am satisfied with my job' (p.19). Locke (1976) has defined job satisfaction in the most general sense as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p.1300). Smith, Kendall, and Hulin (1969) defined it as "the feeling a worker has about his job" (p. 6). Similarly, Katz and Kahn (1966) stated that job satisfaction is "overall liking for the job situation as well as intrinsic job satisfaction deriving from the content of the work" (p. 370).

Most definitions assume that workers have individual needs and that their level of job satisfaction is an affective response to how their job meets those needs. This positive assessment or feeling seems to occur when work matches the individual's needs and values. As Locke (1976) states, job satisfaction results "...from the perception that one's job fulfils or allows the fulfilment of one's important job values, providing and to the degree those values are congruent with one's needs" (p. 1307). In the same way, Hopkins (1983) sees job satisfaction as "the fulfilment or gratification of certain needs of the individual that are associated with one's work" (p. 21-22). Not surprisingly, job satisfaction exists when job outcomes permit individuals to attain and satisfy the needs that are most important to them (Hulin and Smith, 1965; Adams, 1963 and Katzell, 1964). Dissatisfaction is, however, determined by the strength of an individual's needs or drives and the extent to which a person can perceive and utilise opportunities for the

satisfaction of those needs (Schaffer, 1953 and Locke, 1969, 1984).

Some writers suggest that job satisfaction is based on the individual's perception of the differences between what was expected as a fair return and what was actually experienced. Lawler (1973), for example, explained job satisfaction in terms of the difference between what a person thought he should receive and what he perceived that he actually did receive. More recently, Cranny, Smith, and Stone (1992) defined job satisfaction as "an affective (that is, emotional) reaction to a job, that results from the incumbents' comparison of actual outcomes with those that are desired (expected)" (p. 1). Similarly, Liechtenstein (1984a) argued that the key to understanding job satisfaction is understanding "the difference between what a worker experiences on the job and what he or she wants or expects to find" (p. 57).

The existence of job satisfaction is tied not only to satisfaction of needs but also to the fairness of what people receive from their jobs (Locke, 1984; Adams, 1963 and Lawler, 1973). In fact, employees usually compare their input to the job, in terms of effort, qualifications and experience with the returns they receive from their jobs. Locke (1976) hypothesised that job satisfaction is an affective response or feeling associated with a perceived difference between what is expected as a fair and reasonable return and what is experienced in relation to the alternatives available in a given situation.

Some researchers, as we have seen above, approached job satisfaction from the perspective of need fulfilment, that is, whether or not the job met the employee's physical and psychological needs for the things provided by work, such as pay (see, for

example, Porter, 1962, Wolf, 1970, Spector¹, 1997). According to Spector (1997), however, today most researchers tend to concentrate on the cognitive processes by which people evaluate their situations and decide that they are, or are not, satisfactory. One of these recent approaches is the definition implied by Motowidlo (1996), who suggests that job satisfaction is a judgement about the favourability of one's work environment. Thus, the attitudinal perspective has become the most important one in the research of job satisfaction. Schneider and Snyder (1975) refer to perception and evaluation. They maintain that job satisfaction is related to "the set of perceptions filtered through the individual's expectations that produce a personalistic evaluation of conditioning on the job or outcomes that arise as a result of leaving a job" (p. 319). Also, Gruenberg (1976) speaks of individual perception. Job satisfaction is defined as "the favourableness with which one views his or her own work" (p. 40).

According to Turner and Lawrence (1965), workers' perception of their work determines job satisfaction more than any external intervention. This view of job satisfaction suggests that it is a personal matter and nobody can tell that an employee is satisfied, other than the employee himself.

Although much work in the area of job satisfaction indicates that external influences, such as job design, affect employee attitudes, some recent research suggests that individual job attitudes may be fairly consistent over time and jobs. In a nationwide longitudinal study of the job satisfaction of 5,000 middle-aged men, Staw and Ross (1985) found significant stability over a 5-year time period, even when individuals

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changed employers and/or jobs. Staw and Ross concluded that job satisfaction was in part due to personality. Some people are predisposed to like their jobs, whereas others are not. In short, people may carry with them, across jobs, predispositions to feel good or bad about work. Moreover, Arvey et al. (1989) studied the significance of genetic factors in job satisfaction and found that job satisfaction is determined by such factors. They surveyed a group of identical twins who were reared separately and found that their job satisfaction was correlated. They found that 30% of the variance in job satisfaction is attributable to heredity. Therefore, if one member of the twins was satisfied with his or her job, the other member was likely to feel the same about work. This is true for both intrinsic and general job satisfaction. These findings suggest that organisations may have less control over employee satisfaction than previously thought. However, these findings do not mean that job satisfaction is not influenced by environmental factors.

Spector (1997) considered job satisfaction as “a global feeling about the job or as a related constellation of attitudes about various aspects or facets of the job” (p. 2). This definition implies two approaches to job satisfaction: the global approach which is used when the overall attitude is of interest and the facet approach which is used to find out which parts of the job produce satisfaction or dissatisfaction.

Job satisfaction is best considered as a collection of related job attitudes that can be divided into a variety of job aspects (facets). Indeed, an employee can obviously be satisfied with some aspects of the job and, at the same time, be dissatisfied with others. Hackman and Lawler (1971); and Brief and Aldag (1975) found that people with different levels of needs are satisfied with different aspects of their jobs. According to Smith et al. (1969) “job satisfaction is an affective response to distinguishable aspects

of the job evaluated in relation to appropriate forms of reference (p. 87). Warr et al. (1979) used operational definitions. They defined job satisfaction as “the degree to which a person reports satisfaction with intrinsic and extrinsic features of the job” and total job satisfaction as “the sum of all separate items” (p. 133).

Job satisfaction is the most frequently studied variable in organisational behaviour research. Although Locke (1976) estimated that by 1972, more than 3,300 studies had been published on job satisfaction, the number had grown to more than 12,400 by 1991 (Spector, 1996). Spector (1997) argued that there are several reasons for studying job satisfaction. First, from a ‘humanitarian perspective,’ that is, people deserve to be treated fairly and with respect. Second, from a ‘utilitarian perspective,’ that is, job satisfaction can affect positively or negatively the employee’s behaviour, which might, in some way, affect the organisational functioning. Third, job satisfaction can be considered as a reflection of organisational functioning. In fact, employees “who feel positively about their work life are more apt to voice favourable sentiments about the organisation to the community at large” (Hamner and Organ, 1978, p.216). Also, Hamner and Organ (1978, p. 216) stated that people who “like their jobs are easier to live with inside the organisation as well as outside it”. Lastly, they added, “higher job satisfaction tends to reduce absenteeism and turnover”.

Researchers in many occupational areas found that workers’ physical and mental well-being appears to be correlated with job satisfaction in that more highly satisfied workers have better physical and mental health records. On the other hand, job dissatisfaction, as manifested by stress, is associated with a variety of physiological disorders, including ulcers and arterial disease, and mental and psychological problems. For example, Cooper et al. (1989) in a survey of 4,000 general practitioners throughout

England, found that job stressors accounted for 15% of the variance in mental well-being as measured in the free-floating anxiety, depression and somatic anxiety scales of the Crown Crisp experiential index.

Smith et al. (1969, p.206) advanced other reasons for studying job satisfaction. First, it is important to establish a general theory that will serve as a basis for practical action and for future research. Second, job satisfaction is conceptually and theoretically important in itself. Finally, understanding the sources of satisfaction and dissatisfaction is important because such understanding will add to the general knowledge base about satisfaction.

Job satisfaction is a concept that is important at all levels or positions within an occupation and to all occupations. Regardless of the prestige of the job, worker satisfaction is important, as it correlates highly with other critical conditions of work, such as morale, productivity and turnover (Price and Mueller, 1981).

2.3. Job Satisfaction Theories

Most theories discuss job satisfaction within the context of job motivation. Therefore, it is important to distinguish between the two concepts. According to Koontz et al. (1984) job motivation refers to the internal drive that an individual feels to satisfy a want or a goal, while satisfaction is the sense of contentment that results from the achievement of that want or goal. Job satisfaction plays a central role in improving motivation for work. Low motivation is a crucial issue, since motivation is the core of management. A great deal of attention is now being paid by behavioural scientists to those aspects which motivate individuals towards their work.

The theories of motivation, although developed essentially to explain the differences in performance of personnel in business, are equally applicable in the health sector. Traditionally, the health professionals in medicine and nursing have been motivated by their inner sense of professional commitment. In today's materialistic world, such commitment has become rather rare. Motivation must, therefore, be sought elsewhere. Indeed, there is now great evidence from research that pinpoints certain factors as dissatisfiers and others as satisfiers.

There are many theories of motivation and job satisfaction. Any attempt to explain these concepts using a single theory would be impossible. Therefore, in order to understand the nature of job satisfaction and motivation, researchers must study the available theories. The major theories of job satisfaction and motivation fall into one of two categories, as classified by Campbell et al. (1970): content theories and process theories. Content theories focus on what motivates people to perform. They are concerned with intrinsic factors such as responsibility and achievement and extrinsic factors such as pay and promotion that affect job satisfaction. The theories of Maslow and Herzberg are essentially content theories. Process theories focus on the dynamics, or process aspects, of work motivation. In other words, these theories are concerned with the process by which the worker's expectations, values, needs, and goals interact with job characteristics to produce job satisfaction. The study of both content and process theories provides a better understanding of job satisfaction than any theory can provide individually.



2.3.1. Content Theories

Locke (1976) reported that “content theories attempt to specify the particular needs that must be satisfied or the values that must be attained for an individual to be satisfied with his job” (p. 1307). In this section, two common content theories are presented: Maslow’s Need Hierarchy Theory, and Herzberg’s Motivator-Hygiene Theory.

2.3.1.1. Maslow’s Need Hierarchy Theory

The most widely recognised theory of motivation is the needs hierarchy theory. Abraham H. Maslow suggested that people have a complex set of exceptionally strong needs, which can be arranged in a hierarchy (1954, p. 67). Maslow categorised human needs into five orders. The lowest order needs are the basic physiological needs such as water, food and shelter. The second order are physical and financial security needs. The third order consists of social needs, which include belonging, love and acceptance by others. The fourth order includes self-esteem and recognition by peers. The fifth and highest order of needs consists of self-actualisation, which includes self-development, autonomy and self-direction. According to Maslow, the lower level needs must be satisfied, in general, before higher level needs are activated sufficiently to drive behaviour. A satisfied need does not motivate. Therefore, each level in the hierarchy is a potential motivator.

Although Maslow’s theory is considered as a groundbreaking theory in classification of human needs, the main concern of the theory is the hierarchical ordering of needs. In fact, people may not all experience the needs in the order suggested by Maslow because cultural norms and values affect the importance of a particular need. Porter’s (1961) research has indicated that upper level supervisors had

a greater need for autonomy and self-actualisation, at the higher end of Maslow's hierarchy, than those at lower level positions. In addition, Maslow's work suffers from a degree of imprecision in terminology and conceptualisation. Indeed, he proposed certain concepts such as self-actualisation, which were derived from his work with neurotic clients in his practice as a psychologist, and it is not certain to what extent they can be generalised to the normal adult work force. On the other hand, Lawler (1966), and Hall and Nougain (1968) support Maslow's theory to some degree.

Although Maslow's theory is not a job satisfaction theory, it has been cited by some researchers as a foundational point in the study of job satisfaction. In fact, Maslow deserves credit for being one of the first to espouse a humanistic approach to the treatment of employees.

2.3.1.2. Herzberg's Two-Factor Theory of Job Satisfaction

One of the most widely known and influential views of work motivation is Frederick Herzberg's two-factor theory or motivator-hygiene theory, as it is sometimes called (1959). Herzberg's motivator-hygiene theory, as outlined in the research report "The Motivation to Work", as well as in his book, *Work and the Nature of Man*, is based on a view of man that encompasses a dualistic nature. The theory addresses man in two distinct ways, and as having two distinct sets of needs; the need to avoid pain, and the need to grow psychologically.

As part of a study of job satisfaction, Herzberg and his associates conducted in-depth interviews with 200 accountants and engineers using a critical incident procedure. Each person interviewed was asked to describe events experienced at work that had resulted in an improvement or reduction in job satisfaction.

The results of this study suggested the existence of two separate sets of factors. The factors, which were identified as contributing to positive job attitude, were classified as motivators or satisfiers. These motivator factors (or satisfiers) pertained to the content of the job and included such factors as career advancement, recognition, sense of responsibility, and feelings of achievement. The factors, which were identified as contributing to negative job attitudes, were classified as hygiene factors or dissatisfiers. These hygiene factors (or dissatisfiers) more often stemmed from the context in which the job was performed and included job security, policy-administration, interpersonal relations, and working conditions. Although Herzberg later modified his theory slightly, these two sets of factors became the theoretical basis for the “two factor” theory.

Herzberg in this theory claimed that satisfaction and dissatisfaction are not poles on a single continuum, but are on separate and distinct continua. Thus, the concept is that a person can be satisfied and dissatisfied at the same time. Hygiene factors, such as working conditions and salary, cannot increase or decrease job satisfaction; they can only affect the amount of job dissatisfaction. When asked about his core insights from the initial investigation, Herzberg (1976 as cited in Rantz et al., 1996, p.29) stated,

“Job satisfaction and job dissatisfaction are not opposites; they are completely separate continua, like hearing and vision. If this is true, if we recognise that they are separate continua, then they must be produced by different factors and have their own dynamics”.

Rogers (1975) summarised the two-factor theory in this way:

“In other words, adequate salary, good working conditions, respected supervisors and likeable co-workers will not produce a satisfied worker; they will only produce a worker who is not dissatisfied. However, their levels must be acceptable in order for the motivation factors to become operative. In other words, like medical hygiene practices, they cannot cure an illness, but they can aid in preventing it” (p. 111).

Over the years, the two-factor theory has received both support and criticism. Friedlander (1964) concurred with Herzberg's theory that satisfaction and dissatisfaction did not share a single continuum. Others, like Halpem (1966) and Schwartz et al., (1963) also, provided support for the two-factor theory.

On the other hand, one of the major criticisms opponents level against Herzberg's theory is related to problems in the collection of data. The usage of the in-depth interview technique has been seen as unreliable, subjective, and too closely related to the "story-telling" method (Dunnette et al., 1967). According to this argument, respondents were inclined to view the good things that happened to them at work as related to their own efforts, while the bad things were attributed to external or environmental forces. Sergiovanni and Starrett (1971) and Davis (1972) indicate that Herzberg's theory may be method-bound: "When investigators use methods (i.e., interview and content analysis) similar to Herzberg's, results tend to support the hypothesis; but, when they use questionnaires and other objective devices, the hypothesis tends not to be supported" (p. 143). Studies by Hulin and Smith (1965), Graen and Hulin (1968) and Waters and Waters (1969) also failed to support Herzberg's two-factor approach.

Many studies have indicated that intrinsic factors contribute more to both satisfaction and dissatisfaction than extrinsic factors, while other studies have shown that extrinsic factors can be as powerful as intrinsic ones in terms of overall satisfaction. Porter, Lawler and Hackman (1975) provided data to show that "both satisfaction and dissatisfaction can derive both from intrinsic job factors and from extrinsic 'surround' factors" (p. 299-300). Herzberg's placement of salary as a hygiene or maintenance factor has provided mixed levels of support and some controversy. According to Davis

(1972) salary could be a motivator to some people. Evans (1970) stated that Herzberg grossly underestimated the importance of pay. Salary may be a hygiene factor for managers but a real motivator for blue-collar workers; and salary has been seen to satisfy both higher and lower order needs of employees: when salary increases were linked to achievement, salary was perceived as a satisfier.

Notwithstanding the critiques, Herzberg's two-factor theory has provided a perspective of job satisfaction for other theorists to use as a reference point.

2.3.1.3. Relationship between Content Theories

The motivator-hygiene theory draws on the need theory. That is, if hygiene factors are present, security and physiological needs (needs hierarchy) are likely to be met. Motivator factors focus on the job itself and the opportunity for the person to satisfy his or her own higher order needs such as self-esteem. Adair (1996) compared Maslow's needs hierarchy theory and Herzberg's two-factor theory in this way:

“Physiological, safety and social needs, for example, might create dissatisfaction if they were not met, but – according to Herzberg – they have little power to afford satisfaction. By contrast, the meeting of esteem and self-actualisation or professional growth needs could lead to a more positive and longer-lasting sense of satisfaction. In this way we could try to reconcile the two approaches of Maslow and Herzberg”(p. 78).

2.3.2 Process Theories

Process theories attempt to describe and analyse how personal factors interact and influence each other to produce certain types of behaviour. Process theories presented here include Locke's Goal Setting Theory, Adam's Equity theory and Vroom's Expectancy Theory.

2.3.2.1. Locke's Goal Setting Theory

Edwin Locke viewed job satisfaction as an outcome of the interaction between the worker and his work environment, or his job (Locke, 1969). Based on the idea that human behaviour is influenced by values or goals, the theory maintains that the intent to work toward goals is an important determinant of people's motivation (Miner, 1980). Achievement of goals yields satisfaction, and inability to achieve goals results in dissatisfaction. This also indicates that improved performance produces greater satisfaction.

Further, values work in the manner of goals: "job satisfaction and dissatisfaction are a function of the perceived relation between what one wants from one's job and what one perceives it as offering or entailing" (Locke, 1969, p.316). Locke explains that the appraisal process involves three elements: first, a perception of some aspects of the job; second, an implicit or explicit value standard; and third, the judgment with regard to the relationship between the individual's perception and values (Locke, 1969).

Values are also characterised by content and intensity (importance). Therefore, the achievement of more important values will produce higher satisfaction. The discrepancy between values and perceptions of what the job is offering results in more dissatisfaction if the value is important than if the value is not (Locke, 1969).

The goal-setting theory has been supported by several research studies, by Locke and others. There is, however, some question as to whether it should be considered a theory of motivation or a motivational technique (Miner, 1980).

2.3.2.2. Adams' Equity Theory

J Stacy Adams developed the equity theory and carried out the initial test studies in 1963. According to equity theory, the individual gives something and wants something in return. In fact, equity theory is based on the comparison of two variables: inputs and outcomes. Inputs include all the contribution that a person makes to the employment relationship. Level of education, personal effort, experience, training and the like are examples of inputs. The individual also receives the outcomes of the exchange relationship, including pay, promotion and work conditions. This theory focuses on an individual's feelings of how fairly he or she is treated in comparison to others. In other words, when individuals arrive at a ratio of inputs and outcomes for themselves, they start to compare it with their perceptions of the ratios of inputs and outcomes of relevant others. The relevant others are those who hold similar jobs, have equivalent education, experience etc., to whom persons can compare themselves and determine whether they feel equitably treated. Therefore, equity exists whenever the ratio of a person's outcomes to inputs equals the ratio of outcomes to inputs for others; inequity, in contrast, exists when the ratios of outcomes to inputs are not equal. Studies by Adams (1963a), Adams and Rosenbaum (1962) and Adams and Jacobsen (1964) postulated that inequity exists when "inputs" are not in balance with "outcomes". According to Adams (1963), pay inequity for a given employee would exist when the ratio of pay to inputs was, for that employee, not equal to the same ratio for others. Also, studies by Adams and others involving "equity theory" suggest that the matter of equitable pay plays an important role in defining a person's attitude toward his work environment.

Job satisfaction exists when a person perceives that the outcome received is fair.

On the other hand feelings of inequity produce a psychological tension within an individual-and among individuals that requires reduction. If individuals perceive job outcomes as too low in relation to inputs, they alter their inputs by changing either the quantity or the quality of their work. Feelings of inequity may also occur if persons perceive that the outcome they receive is greater than their input. In that case, in order to achieve equity, workers will increase their input.

Equity theory offers a useful approach to understanding a variety of social relationships and interpersonal interaction in organisations. Moreover, its perspective continues to generate additional research initiatives. In other words, the empirical support for the equity theory is impressive (Miner, 1980). However, equity theory has been subjected to some criticisms. It has been criticised for not explicitly predicting which method an employee will select in order to restore equity (Mowday, 1979). Also equity theory fails to capture the complexity of the real world and to appreciate actual comparison standards, and it also neglects the impact of different cultural contexts on people's perceptions of inequity. According to Vroom (1964), the complexity of equity theory makes conclusive tests difficult, and "a great deal of theoretical and methodological refinement remains to be carried out before this approach can be properly evaluated" (p. 172). Vroom proposed an alternative, expectancy theory, which will be considered next.

2.3.2.3. Expectancy Theory

Expectancy theory (or perhaps more properly, theories, since a variety of expectancy approaches have emerged during recent decades) is clearly in the cognitive camp. This theory assumes that individuals are basically rational and purposive, choosing goals and capable of modifying or altering their behaviours. Victor H. Vroom

(1964) developed a rather more complicated formulation of an expectancy theory of work motivation. He started with the idea that people tend to prefer certain outcome to others. People, therefore, expect to experience feelings of satisfaction when preferred outcomes are achieved. Vroom suggested that a person's motivation toward an action at any time would be determined by his or her anticipated value of all outcomes (both negative and positive) of the action multiplied by the strength of that person's expectancy that the outcome would yield the desired goal (Vroom, 1964). Vroom's theory appears to offer a way of measuring human motivation. The preference that the individual has for a particular outcome, he called valence. As a person may seek or avoid certain outcomes, or be ambivalent about them, valence can be positive, negative or neutral. When the outcome is preferred, that indicates the valence is positive. When the outcome is not preferred, the valence would have a negative value. A valence of zero occurs when an individual is indifferent about achieving a certain outcome, resulting in a situation of no motivation. Another element of expectancy theory is instrumentality, which refers to the degree to which the person believes that there is a relationship between his or her good performance and the attainment of a valued outcome. Instrumentality can have values ranging from -1 to $+1$.

Vroom's term subjective probability describes the individual's expectation that behaviour would lead to a particular outcome. It is subjective because people will differ in their judgements of the relationship between their behaviour and outcomes. It may vary between 0 and 1, from no probability at all at one end of the scale to absolute certainty at the other. The strength of motivation to a particular action thus depends on both the valence of the outcome and the subjective probability of achieving it.

In other words, expectancies are combined with total valence to yield a person's aroused motivation for a given action. Vroom uses the term "force" to describe the relationship between valence and expectancy. Using Vroom's words, his model is summarised as follows:

$$\text{Force} = \text{Valence} \times \text{Expectancy}$$

Although Vroom's expectancy theory is very popular because it is easily understood and useful in practice, researchers testing the theory have voiced some concerns. The first concern is that the expectancy theory does not specify which outcomes are relevant to a particular context. Moreover, people are assumed by the theory to calculate the rewards that they expect to attain when making a choice. It can be argued, however, that people are not always conscious of their motives, expectations, and perceptual processes.

The other concern relates to the research methods used to test the theory. A true test of the complete expectancy theory would require an enormous effort on the part of participants to answer a very large number of questions. In addition, the resulting information would also have to be combined in a matrix-algebra format in order to include the many combinations of multiple levels of effort, performance, and reward that could be anticipated.

Porter and Lawler (1968) thus modify Vroom's expectancy model, to emphasise that effort may not necessarily result in performance, and extend the relationship between valence and expectations, and effort or motivation. They state that the personal performance of a task may be provided with intrinsic rewards, extrinsic rewards, or both. They suggest that intrinsic rewards can be more closely linked with good performance than extrinsic rewards, because intrinsic rewards can result directly from

task performance in which the rewards are assessed subjectively, and performance leads to satisfaction, whereas the external control system stems from its reliance on some reasonably objective method of measuring or assessing performance.

2.3.2.4. Relationships among Process Theories

The equity and expectancy theories emphasise different aspects of motivation. Equity theory suggests that a person may be motivated by comparing his or her own situation with that of others who are in the same or a similar situation. Expectancy theory is more internally oriented. That is, the more strongly a person believes that performance will lead to a positive outcome (or avoidance of a negative outcome), the more likely it is that he or she will be motivated to higher levels of performance. According to Staw (1986), both theories emphasise the future role of rewards and individual decision-making processes.

In summary, at present no theory can claim fully to account for job satisfaction, because each has limitations and shortcomings. Each theory appears to account for some particular aspects of satisfaction but not all of them. The result is a great body of specific empirical data, little of which can be generalised (Korman, 1977). In the absence of a single general theory, one major view is that job satisfaction is jointly determined by characteristics of individuals, jobs, and organisation (Seashore & Taber, 1976). Therefore, when job satisfaction is studied and measured, an eclectic attitude to theory is wise. It is important to consider production within a broad theoretical framework.

2.4. Determinants of Job Satisfaction

This section is devoted to the review of prior research on determinants of job satisfaction in general, determinants of doctors' job satisfaction and determinants of nurses' job satisfaction.

2.4.1. Determinants of Job Satisfaction in General

Job satisfaction is itself a complex concept, as described earlier, and thus difficult to measure objectively. A wide range of variables relating to individual, organisational and environmental factors affects the level of job satisfaction. These different factors all affect the job satisfaction of certain individuals in a given set of circumstances but not necessarily in others. In this study, individual factors, as well as organisational and environmental ones, will be considered.

2.4.1.1. Individual Factors

Review of the literature regarding general job satisfaction reports two demographic variables relevant to this study. These factors are age, and sex of workers.

Age

Research investigating the relationship between age and job satisfaction has produced mixed and generally inconclusive results.

Earlier research (Turner and Lawrence, 1965; Hulin and Smith, 1965; Hoppock, 1935) suggests that workers who have been on the job for a number of years have the advantage of "knowing the ropes". They have more realistic expectations that are met. Brush et al. (1987) conducted a meta-analysis of 19 studies that show, in general, job satisfaction increases with age. However, Zeitz (1990) found a U-shaped curvilinear

association between age and job satisfaction in which job satisfaction declines early in life, levels off in middle age, and rebounds after approximately 45 years of age. Also, Kacmar and Ferris (1989) studied the relationship between age and job satisfaction. Their results supported both a U-shaped and a linear relationship between age and job satisfaction. Kacmar and Ferris supported the use of career stage and development theory, which proposed age sequential phases of people's career: young adult, middle and old adult phase with different challenges facing individuals in each phase. In the young adult phase, workers try to fit into the adult working world, workers in the middle phase are highly productive and workers in the old adult phase try to disengage from work. Under the career stage and development model, upper-level positions, which have increased power and status, are not available to young employees and, therefore, the job satisfaction that comes from increased power and status is not available to young adults.

Sex

The job satisfaction literature abounds with research regarding possible sex differences, but the findings are inconclusive. When the results of different studies are combined with meta-analysis, mean correlations tend to be almost zero across dozens of studies and thousands of people (Brush et al., 1987; Witt and Nye, 1992; cited in Spector, 1997). In other words, the predominant conclusion is that sex has no impact on the job satisfaction of workers. In fact, women tend to earn less than men, even when such important factors as the tasks performed are held constant (e.g. England and McLaughlin, 1979), yet women do not report lower levels of satisfaction. Spector (1997) mentioned several explanations that have been advanced to explain the equivalent job satisfaction of women to men despite non-equivalent job conditions and pay. First, women might have different expectations. He stated that women expect less

from work and so they are satisfied with less. Second, men and women might have different values. Third, women and men might have gender differences in perceptions of equity. Spector added that women and men sometimes view fairness in reward distribution differently. On the other hand, other research reports higher levels of satisfaction for women in the workforce. Hodson (1989) reported that in spite of what many people would consider “inferior” jobs, the job satisfaction of a group of full-time employed women was greater than that of men. In the same way Chambers (1989) argued that the satisfaction of professional women with family responsibilities is higher than that of men and of other women without family obligations.

The determinations drawn from this literature are far from conclusive. The exact relationship between job satisfaction and gender, however, is arguable, as it seems that what appears to be a sex effect may, in some cases, be explained away by controlling for job type, extrinsic rewards, age and other mediating variables.

2.4.1.2. Organisational and Environmental Factors

The overwhelming majority of the studies on worker satisfaction deal with aspects of the work environment and work organisation. There are eight factors of work identified in the literature on job satisfaction in general that are pertinent to the study of the job satisfaction of doctors and nurses: autonomy, relationships with co-workers, commitment, administration, pay, work load, job conditions, and job stress.

Autonomy

Autonomy is the extent to which a job offers freedom, independence, and self-determination for the scheduling of work and the performance of associated tasks (Hackman and Lawler, 1971). It leads to feelings of responsibility (Spector, 1997).

Contemporary research on the effects of job autonomy on overall experience of job satisfaction is fairly consistent in its findings: jobs with higher degrees of autonomy generally have workers who are more satisfied.

Weisman and Nathanson (1985) found a strong relationship between job freedom, independence and autonomy and job satisfaction. Similar results were found in different occupational groups: nurses (Shoham-Yakuboivich et al., 1989; Carmel et al., 1988), public relations personnel (Grunig, 1990), social workers (Arches, 1981) and blue-collar workers (Wall and Clegg, 1981).

On the other hand, Buffum (1987) in his study of a group of community mental health workers found that workers who are too autonomous have a lower level of job satisfaction.

Relationship with Co-workers

Interpersonal relations involved in a work situation are usually related to levels of job satisfaction. This involves the actual work group in both formal and informal contexts (Herzberg et al., 1959; Smith et al., 1969; Vroom, 1964). Vroom (1964) also notes that those individuals who are in isolated positions have a higher turnover rate than those in positions which involve a certain amount of interaction. Similarly, Price and Mueller (1981) argued that, regardless of the level of the occupation (from professional to blue collar worker), relationships with work peers are vital in understanding job satisfaction. At all occupational levels, they found that there is a strong, direct relationship between positive interaction with co-workers and job satisfaction. Furthermore, Warr and Wall (1975) have also stated that factor analytic studies of job satisfaction repeatedly demonstrate the presence of strong 'other people' factors. Warr and Wall (1975) suggest four main social psychological processes that

make social interaction satisfying for all workers. Firstly, individuals have a need for social contact to satisfy their needs for variety, stimulation, affiliation, and approval. These can only be gratified by other people. Secondly, workers use social interaction for social comparisons. People validate their own attitudes, opinions, beliefs and evaluations by comparing them with the attitudes, beliefs and so forth, of those similar to them who are likely to be found in the same work setting. Thirdly, social interaction in work situations is satisfying because it aids the development of group norms. Therefore, individual group members know what they should or should not do and should or should not think. Lastly, effective operation and goal achievement is in itself valued by most people at work.

Commitment

According to Porter and his associates (Mowday, Porter, and Steers, 1982 & Porter et al., 1974), commitment is “the strength of an individual’s identification with and involvement in a particular organisation” (p. 604). Becker (1960), on the other hand, described commitment as the tendency to engage in “consistent lines of activity” (p. 33) because of the perceived cost of doing otherwise. In the case of commitment to the organisation, the activity referred to by Becker involves staying with the organisation, and the perceived costs associated with discontinuing the activity might include the loss of attractive benefits and seniority, the disruption of personal relations created by moving to another location, the effort of seeking a new job, and so on. Committed employees have been found to be less likely to leave an organisation than those who are uncommitted (e.g., Angle and Perry, 1981).

Much of the literature that includes both job satisfaction and organisational commitment, however, addresses a common set of independent variables and how they

affect these two as separate dependent variables. It is not often that research addresses the relationship that the two have with one another. According to Hall (1986), though there is evidence of a correlation between the concepts of job satisfaction and job commitment, it is important to examine both characteristics, as they are distinct concepts.

However, there is a small body of research that does look at the relationship between organisational commitment and job satisfaction. Rosin and Korabik (1991) report a positive relationship between commitment and job satisfaction among a group of MBAs.

Administration and Management

The relationship with administration and management in the organisation influences job satisfaction. According to Locke (1976), the organisation can determine the nature of the individual's work tasks, his workload, his degree of responsibility, his promotional opportunities, his rate of pay, and the physical conditions of work. Locke added that the organisation has more ultimate control over these factors than does the employee's immediate boss. Locke also argued that an employee will like his organisation to the extent that he sees the organisation as providing him with or helping him to attain important job values. These values can be divided into two broad classes:

- Task-related values: interesting and challenging work help in attaining work goals, freedom from interruptions, good equipment, etc.
- Rewards for task performance: promotion, pay raises or high earnings, verbal recognition.

Pay

Research reports that while pay is a factor in understanding job satisfaction, it is not the sole variable, nor does it always act in the way conventional wisdom might predict. According to Spector (1997), the correlation between level of pay and job satisfaction tends to be surprisingly small. Spector (1985) conducted a study of three samples representing a heterogeneous collection of jobs. He found a small correlation between level of pay and job satisfaction.

The level of pay is most commonly judged in relation to that of other employees in the same situation (Herzberg et al., 1959; Vroom, 1964). Jacques (1956) observed that if actual pay falls below the equitable level, then workers experience dissatisfaction.

On the other hand, Rice et al (1990) found a positive relationship between pay level and job satisfaction in a group of mental health professionals who all had the same job. Similarly, Whyte (1961) reported a positive relationship between pay and job satisfaction.

Nord (1977) noted that researchers have not paid adequate attention to the study of so-called extrinsic sources of job satisfaction (e.g. pay). More recently, Brief and Aldag (1994) argued that the economic elements of jobs remain inadequately emphasised, although there appears to be an increased interest in satisfaction with pay.

Workload

The relationship between workload and job satisfaction has been inconsistent across studies. Jex and Beehr (1991) found that excessive workload is associated with job dissatisfaction. Similarly, Jamal (1990) found a significant negative relationship between workload and job satisfaction. On the other hand, Fox et al. (1993) found no

significant association between the two. There is no clear reason why results are inconsistent across studies, although one possible reason is that different studies have used different measures of workload (Spector, 1997).

Working Conditions

Working conditions are considered by researchers as an extrinsic reward of the job. They are not directly a part of the actual work, but nonetheless an important aspect of it. Whyte (1961) states that workers are likely to endure difficult physical conditions when those conditions are seen as clearly necessary in the job situation. According to Becher (1985), adverse working conditions negatively affect the amount of satisfaction that workers derive from their job. Mansfield et al. (1991) found that women often encounter work conditions that are less favourable than those of men (such as less office space and privacy) and this leads to lower job satisfaction and higher levels of stress at the work site.

Job Stress

In seminal work in the 1950s, Selye (1956) described the occurrence of emotional strain, adopting the terminology of the physical sciences to differentiate between stress (the cause) and strain (the effect). Early stimulus-based models had introduced a definition of stress which has persisted to the present day as “any internal or external stimulus which disturbs the equilibrium of the body” (Thompson, 1983, p. 23).

Many researchers link the stress that workers experience due to their job with the amount of satisfaction that they feel toward what they do (e.g., Kahn et al., 1964; Houes and Rizzo, 1972; Bateman et al., 1983; Rahman, 1989; Rosin, 1990). The results from these different studies are consistent: high levels of job stress result in workers being

dissatisfied in their jobs.

On the other hand, Bhalla et al. (1991) found that managerial staff who had high levels of stress had high levels of job satisfaction. Project officers in the same sample, however, had high levels of job-induced stress and low levels of job satisfaction. In a similar vein, Schneider (1991) reported that workers with more control over the pace and type of work that they do are better able to deal with job-induced stress and do not allow it to have a negative impact on job satisfaction.

2.4.2. Determinants of Doctors' Job Satisfaction

Only recently have there been serious efforts made to address how satisfied doctors are with their jobs. Most of the work on doctors' satisfaction has been carried out in the United States. Doctors' satisfaction is most frequently included as one variable in a study whose major objective is something else. In the late 1980s and early 1990s, the most common approach was to study doctors' satisfaction in the context of a larger study whose primary analysis concerned organisational or administrative issues (Stamps et al., 1994).

This section is devoted to a review of research on doctors' job satisfaction. Findings with regard to personal and demographic factors affecting the job satisfaction of doctors will be presented first, followed by a review of the organisational and job-related factors that affect doctors' job satisfaction.

2.4.2.1. Personal Factors

The personal and demographic factors that literature reports as important to understand the satisfaction of doctors with their work are age, sex and specialisation.

Age

In medicine, older doctors have been found to be more satisfied than younger doctors (Richardson and Burke, 1991b; Hadley et al., 1992; Kravitz et al., 1993; Aasland et al., 1997). Pastor et al. (1989) investigated the job satisfaction among rural doctors in Minnesota, by a mailed questionnaire of approximately half the state's doctors, including those in single and group practices, clinics and community hospitals. They found younger doctors (under 40 years) to be less satisfied with their work than older ones, and suggested that this may be because younger doctors are more concentrated in general practice and salaried positions with exorbitant work load and experience more conflict between work and personal life. However, Burns et al. (1990) in a questionnaire survey of doctors' satisfaction in relation to hospital management strategies among all 1,367 doctors in an (unspecified) urban county in the Western United States, found greater satisfaction, as measured on 50 questionnaire items of favourable and unfavourable work experiences, among older respondents and argued that older doctors have time to establish greater leverage at hospitals in which they prefer to work and to which they are committed. It must be borne in mind, however, that in both those studies, age was only one of many variables considered, and they are not comparable in that one was rural, one urban; one conducted in varied medical settings, one confined to hospitals. The evidence as to the association, if any, between age and satisfaction of doctors, therefore, remains unclear.

Sex

With the increasing number of women entering medicine as a profession, the question arises whether a relationship exists between gender and job satisfaction of doctors. Few studies that focus on practising doctors have enough women included in order to analyse them as a group. In those few studies that do have sufficient women in

the sample and that attempt to measure satisfaction, the results are mixed: some studies seem to indicate that gender has little or no effect on satisfaction, while others note that female doctors seem less dissatisfied than male doctors. According to Cooper et al. (1989), in the U.K., women in general practice are more satisfied with their work than their male counterparts, and are affected more by family-related than by work-related stress factors. Cooper et al. attributed this to the greater tendency among female GPs to work part-time.

Schulz and Schulz (1988) found lower levels of job satisfaction for female doctors. They stated that female doctors are not immune to the societal forces of sexism. This study suggests that, when dealing with the older male dominated medical hierarchy, younger females experience greater levels of sexism, which leads to dissatisfaction. Cartwright (1978) also found that women doctors in general practice tend to be less satisfied than their counterparts working in a specialism. This research further stated that when the patients' load exceeds what the doctor would ideally like, satisfaction decreases more for female doctors than for comparable males.

Specialisation

Specialisation is an important factor affecting the job satisfaction of doctors. Medicine is a unique in that its workers have different experiences and areas of specialisation. Some researchers assert that general practitioners are more satisfied (Cooper et al., 1989), while others state that specialists enjoy higher levels of satisfaction (Ben-Sira, 1986). Ben-Sira (1986) has stated that doctors from differing specialisations draw satisfaction from different parts of medicine. Primary care physicians may draw their satisfaction from providing continuous care to patients. Those in the more specialised areas of medicine may draw satisfaction from mastering a

more finite body of knowledge and using the technological advances of medicine to a greater degree. In their study of Norwegian physicians, Aasland et al. (1997) found that across speciality groups there was relatively large variation in job satisfaction, as measured on the Job Satisfaction Scale of Warr et al. (1979). Public health and occupational health doctors were the most satisfied, laboratory doctors, psychiatrists and general practitioners were in an intermediate position. Internalists and surgeons who comprised the bulk of the hospital doctors, 50% of all specialists, were less satisfied. The non-specialist group (doctors in specialism training as well as general practitioners without any specialism) scored significantly lower than all other groups. Similarly, Stevens et al (1992) reported that certification (i.e. specialist or not) is an important predictor of job satisfaction. Medical specialists are more satisfied than residents are and this difference might be attributed to the differences in organisational position of these two groups. Stevens et al. (1992) go on to explain that medical specialists have more influence on the structuring of work activities, while residents are probably more subject to formal structuring of work.

2.4.2.2. Organisational and Job- Related Factors

These factors are related to the structure of the organisation as well as to the functioning of the worker within the organisational setting.

Relationship with Co-Workers

Also important in understanding doctors' job satisfaction is the relationship doctors have with co-workers and with other members of the health care team. Richardsen and Burke (1991a) in a longitudinal study of the work experience and satisfaction of more than 2,000 Canadian physicians (both general practitioners and specialists) found "relations with colleagues" to be among the major sources of job

satisfaction for respondents. They concluded that “supportive relationships with co-workers and being able to work in a co-operative and friendly atmosphere are essential ingredient for positive attitudes towards the job and effective functioning on the job” (p. 311).

Relationship with Patients

Relationships with patients also significantly affect the job satisfaction of doctors. For doctors of all types of specialisms, a more diverse group of patients leads to higher doctor satisfaction (Kravitz et al., 1990). The study by Kravitz et al. (1990), conducted in Ontario, Canada, involved a probability sample of more than 1000 doctors. One of the objectives of the study was to determine whether job satisfaction was related to the involvement of doctors with the 1986 doctors' strike in Ontario. The researcher used as a measure of satisfaction the 13-item scale developed by Linn et al. (1985b) and added three more items. This measure has four satisfaction facets: resources for providing high-quality care, psychological and material rewards of practice, patient interactions, and social and intellectual work environment. A multiple regression model showed that participation in the Ontario doctors' strike was primarily related to those aspects of satisfaction under direct influence of the government, but not to those aspects that are mainly a product of the specific work environment.

Also, the feeling of success in treating patients is said to be a major source of doctors' job satisfaction. Melville (1980) investigated the relationship between job satisfaction in general practice and quality prescribing, in a questionnaire survey of 124 GPs in England and Wales. Satisfaction was measured on a 12-item attitude questionnaire using a 5-point Likert scale. For prescribing data, certain drugs were selected, extensive prescribing of which could be said to reflect inattention to recent

developments in clinical pharmacology, or to official warnings, since the drugs in question had been found to produce serious adverse reactions, or to be addictive and subject to misuse. Of the six drug groups selected as possible indicators of dysfunctional prescribing, four showed associations with the doctor's measured level of job satisfaction. In discussing the implications of these findings, Melville suggests that perceived success in treating patients is likely to be a strong factor in the satisfaction of doctors, so that dysfunctional prescribing may adversely affect the doctor's satisfaction with his or her work. However, Melville's claim regarding the association between success in treatment and doctors' satisfaction, appears to have been based on intuition rather than evidence.

Another source of doctors' job satisfaction is the continuity of care with their patients. Linn et al. (1985a) compared patient satisfaction scores with job satisfaction scores of doctors in group practices centred on 15 general teaching hospitals across the U.S.A. Job satisfaction was measured by attitude questionnaires, and organisational and environmental characteristics of the practices were measured. One of the variables was continuity, defined as the percentage of patient visits to the practice in which the same provider was seen. They noted that when doctors have continuity of care with their clients, the result is more satisfied patients and more satisfied doctors. However, Linn et al. (1985a) found that 'problem patients' (e.g., those who are difficult and non-compliant) are a major stressor in the lives of doctors, and one that brings them a lack of satisfaction with medical work and resources. This study by Linn and her associates, however, has certain limitations. First, the study was exploratory, not definitive and therefore, its results were premature to be considered conclusive or generalisable. Second, the conceptualisation of organisational characteristics associated with patient or doctor satisfaction was not comprehensive. Only selected organisational and

environmental characteristics were addressed. Finally, the items used in the measurement of satisfaction were not constructed as a scale and the underlying factor structure was not assessed by factor analytic techniques.

Patient care also has the potential to produce serious levels of dissatisfaction. The British studies are careful to acknowledge that a significant contributor to doctors' satisfaction is a low level of emotional involvement with patients (Makin et al., 1988 and Cooper et al., 1989). U.S. doctors also may be extremely dissatisfied with aspects of patient care: sometimes the patients are too sick (Clarke et al., 1984); are not sick enough, but demand services (Reidel and Reidel, 1979); have undiagnosable or psychosomatic/ psychosocial problems; or do not co-operate with therapy (Mawardi 1979; Krakowski, 1982). Fears of malpractice suits, or even physical violence from patients, also produce a profound sense not only of dissatisfaction, but also of anxiety (Charles et al., 1987; Mawardi, 1979).

Workload

Evidence from the U.S. and U.K. suggests that patient load and working hours affect the job satisfaction of doctors. A larger patient load results in higher levels of dissatisfaction (Mechanic, 1975; Hornung et al., 1979; Mawardi, 1979; Cooper et al., 1989; Burke and Richardsen, 1990; Richardsen and Burke, 1991a; Hadley et al., 1992, Rout et al., 1994). In a similar vein, studies show that overload of patients and time restrictions are sources of dissatisfaction to doctors (Clarke et al., 1984; Twaddle, 1986).

Heavy workload also affects quality of care because of shorter consultations, a lower quality of communication between doctors and patient and detection of fewer patient problems (Groenewegen and Hutten, 1991). In fact, doctors with a heavy

caseload considered more complaints as trivial, reported more unreasonable consultations and felt less responsibility for the psychosocial problems of their patients. Hornung et al. (1979) showed that the number of working hours of doctors was positively related to the propensity to regard a patient's symptoms and behaviour as psychological.

Pay

The professions, especially medicine, are frequently thought to be occupations in which satisfaction is high because of the high level of remuneration for tasks. Research indicates that pay is one of the aspects that explain doctors' level of satisfaction. Lewis et al. (1991) found, in a questionnaire survey study of job satisfaction in internal medicine in the U.S.A., that growing dissatisfaction with internal medicine is related primarily to concerns over loss of autonomy, increase in financial burdens and loss of potential income. Similarly, Richardsen and Burke (1991a), in their study of Canadian physicians, described earlier, found that job satisfaction was related to the financial security that the job provided.

On the other hand, Cooper et al. (1989), based on multivariate analysis of a large database of GPs in England, compiled from the results of a confidential questionnaire survey, argued that doctors have other factors that are more important to job satisfaction than the amount they earn. Intrinsic factors, such as freedom, responsibility, and variety, have the most impact on whether doctors are satisfied with their work. The lowest impact comes from extrinsic factors such as pay.

Administration

The relationship with administration also influences job satisfaction. In medicine, formal authority and control is different from other occupations. According to Freidson

(1980), in his study of a large prepaid² medical practice, in U.S.A. the medical group is a classic case of “bureaucratic-professional” conflict. Bureaucratic control refers to formal rules and regulations, division of labour and hierarchical orders and supervision. Professional control means that the workers themselves control and direct their own work.

Freidson (1980) also explained that bureaucratic management in health care organisations establishes the administrative controls needed to organise and govern basic functioning. Within this, professional authority is then free to control the actual performance of work. Cooper et al. (1989) and Kravitz et al.(1993) have found increased bureaucratic control to be associated with dissatisfaction and the ability to participate in policy normalisation and decision making to be associated with satisfaction.

Autonomy

Autonomy is one of the main job characteristics that affect the job satisfaction of doctors. According to Kravitz et al. (1993), there are two types of autonomy: technical autonomy and socio-economic autonomy. Technical autonomy refers to the ability to practise according to one’s judgement. Socio-economic autonomy refers to the ability to influence policy in the organisation. Freidson (1988) describes medicine as a classic example of the “dominant profession”. According to Freidson, professional dominance is a result of highly regarded freedom in practising according to one’s judgement. It is also a result of the extreme degree of confidence in the ethics, knowledge and skills of doctors. He goes on to explain that doctors have fought for and have achieved their

² A prepaid medical practice is a practice with a closed panel of subscribers and where physicians are all salaried and work full time, i.e. do not have private fee-for-service patients.

professional dominance, through legal actions and general public acceptance. That has granted doctors the right to have complete autonomy in the discharge of their clinical work. Further, Freidson argues that society has permitted the profession to exercise a monopoly over the core content of its work, and attempts by outsiders to the profession to direct, define, or evaluate the clinical work of doctors are considered illegitimate.

Professional autonomy is considered as the key factor influencing job satisfaction (Schulz and Schulz, 1988; Cooper et al., 1989; Schulz et al., 1992). Mick et al. (1983) investigated turnover of doctors in 10 group practices in New England. Data on turnover rates were obtained from practice directors. Characteristics of “stayers” and “leavers” were addressed by means of a self-administered questionnaire, covering personal data, attitudes towards the practice of medicine, and conditions of work experienced in the practice. They found that a lack of professional autonomy was one of the main reasons for leaving group practices. In a similar vein, Breslau et al. (1978) on the basis of structured interviews with 70 primary care teams (doctors plus paramedics) in Cleveland, Ohio, reported doctors in solo practice to be more satisfied than those in larger organised settings.

Increased bureaucracy in health care organisations also affects autonomy. However, whether the relationship between the two is positive or negative is unclear. Engel (1969), for example, found that doctors in moderately bureaucratic settings perceived more autonomy than did those in non-bureaucratic settings or highly bureaucratised ones. According to Stevens et al. (1992), organisation theorists have frequently argued that bureaucratic organisation structures create dissatisfying and alienating climates for professionals.

Job Stress

Clarke et al. (1984), in their study of neonatologists in north-eastern U.S.A., found that the degree of stress and job satisfaction measured on a 5-point Likert scale were inversely correlated with each other.

Richardsen and Burke (1991a), in their study of Canadian doctors, found that doctors who experienced greater levels of occupational stress were less satisfied with their work and had more negative views about the health system.

According to Cooper et al. (1989), not being able to “switch off” at home and having to take work home is a source of dissatisfaction. Therefore, work related stress could affect job satisfaction.

Duffy and Litton (1967) suggested that medical practitioners are a heterogeneous group, but the stress to which they are subjected is, in a way, specific for the entire group. It consists of the demand to satisfy their patients’ urgent needs, to maintain high professional skills, to assume responsibility for their own families and to fulfil their social and civic responsibilities and commitments.

Krakowski (1982), based on a questionnaire survey of 100 doctors associated with a New York medical centre, found that the most prevalent work-related stressors for doctors were dealing with noncompliant and recalcitrant patients, caring for dying patients or those not responding to treatment, having interpersonal problems with nurses and consultants, and completing excessive paperwork.

Mechanic (1975), based on a questionnaire survey of primary care doctors throughout the U.S., reported that time factors were the major source of dissatisfaction

among physicians.

Betty Mawardi (1979) is one of the earliest investigators to examine stress among doctors, especially as it relates to doctors' satisfaction. In her longitudinal study, she interviewed doctors graduating from Case Western Reserve, U.S.A. during the first decade (1956-1965) following a major curriculum revision. Although she also used a modification of a scale (the Brayfield job satisfaction blank), she depended heavily upon the results of the personal interviews to determine the satisfaction and dissatisfaction of the respondents. She found that not having personal free time, being on call, and carrying a heavy work load were the most prevalent sources of doctors' dissatisfaction with work (Mawardi, 1979).

Anwar (1983), in her longitudinal study of residency-trained emergency doctors in U.S.A., found from a mailed questionnaire survey that keeping up with literature, knowing enough and learning new skills and procedures were the major sources of job dissatisfaction of emergency doctors.

Heavy workload, time 'on call', fatigue, conflicts between work and personal lives, dealing with problem patients, dealing with life-and-death situations, financial pressures, and threat of malpractice litigation, are reported as the most stressful job demands for doctors (McCue, 1982, 1985; Linn et al., 1985b; Charles et al., 1987)

Doctors are also susceptible to burnout, a description for work-related distress that combines emotional exhaustion, depersonalisation (treating people in an unfeeling, impersonal way), and a sense of low personal accomplishment (Freudenberger, 1974).

Ramirez et al. (1996) stated that "burnout and more generalised psychiatric morbidity warrant careful consideration, not only because they reflect the personal

suffering of doctors, but also because they risk impairing the quality of care doctors are expected to deliver”.

Ramirez et al. (1996), in his study of mental health of hospital consultants, found three sources of stress were associated with both burnout and psychiatric morbidity: feeling overloaded, and its effect on home life; feeling poorly managed and resourced; and dealing with patients' suffering. They also found that burnout was associated with low job satisfaction in three domains: relationships with patients, relatives, and staff; professional status and intellectual stimulation.

Summary of the Literature Review on Doctors' Job Satisfaction

Personal factors such as age and gender were found to have some influence on doctors' job satisfaction, although this influence was inconsistent across studies of doctors' job satisfaction. The organisational and job-related factors that have been reported to influence doctors' satisfaction were relationships with colleagues, and with patients, autonomy, administration, workload, pay, and job stress.

2.4.3. Determinants of Nurses' Job Satisfaction

There is a substantial body of literature on nurses' level of work satisfaction. However, the cited nursing literature is mainly based on studies conducted in United States, prompted by the nation-wide nursing turnover problem of the 1980s and 1990s. According to Mottaz (1988), the major weakness of these studies is that the models used are incomplete. A key research variable in one study may not even be considered in another study. This lack of comprehensiveness makes it impossible to compare the results of one study with those of another. It is important that one should keep in mind the possibility of differences between nurses in Oman and the United States. These

differences can be attributed to the peculiarities of each country's social, cultural, and economic system, and the differences in their education and practice. However, job satisfaction of hospital nurses is an international problem and many studies both in U.S. and Britain, support the conclusion that hospital nurses have much in common.

Many attempts have been made to identify the factors that can influence job satisfaction of nurses. According to Stamps (1997) many of the studies demonstrate only moderate relationships between nurse satisfaction and the variables in which the investigators are interested. There is a wide range of factors or variables, which gives some indication of the complexity of job satisfaction. Personal factors, as well as organisational and job-related factors, which are of importance for this study, will be considered here.

2.4.3.1. Personal Factors

Many investigators have examined the personal variables that influence the job satisfaction of nurses. Hinshaw and Atwood (1984), in their extensive review of the nursing literature, identified several personal factors that are considered important to acknowledge when examining job satisfaction. These include; age, sex, intelligence, education, experience as a nurse, tenure and position in the hierarchy.

Age

Age is a demographic variable that is frequently included in studies. This is sometimes operationalised as age, while other times it is operationalised as length of time in a specific job or sometimes, length of overall professional experience.

Yamashita (1995) conducted a study of Japanese nurses' job satisfaction, to identify factors attributed to their job satisfaction. The sample was composed of 613

nurses from one of the largest and most progressive teaching hospitals in Japan. Various nursing disciplines were represented. The instrument was a modified version of the scale "Measurement of Work Satisfaction of Health Professionals" developed by Stamps et al. (1978), with the items translated into Japanese. The internal consistency of the instrument was evaluated as adequate with a Cronbach's alpha of 0.82, with subscale reliability coefficients ranging from 0.81 to 0.82. Validity was assessed by a factor analytic method. The investigator found that older and more experienced nurses were more satisfied with their jobs than younger, less experienced nurses. However, education and number of night shifts were negatively correlated with the scores, indicating in particular that those who were more educated - who were younger and unmarried in the study - were less satisfied with their jobs than others.

Baggs and Ryan (1990), in a study mentioned below, also found a relationship between age and level of satisfaction. In this study, younger nurses and less experienced nurses were more satisfied. On the other hand, Blegen's (1993) meta-analysis found that age was included in the same number of studies as education. Like education, it had only a small effect on satisfaction levels. In the same way, Sanger, Richardson and Larson (1985) concluded that the length of employment and age were not associated with job satisfaction.

Nurses, regardless of age and years of experience, are similar in their work-related desires. They want an increased variety of work, greater participation in work-related decisions, improved communication about work, and greater advancement opportunities (Price & Mueller, 1981).

Sex

Gender is frequently mentioned in satisfaction studies but the results are mixed.

Gender is of interest because of the nature of the nursing profession, which is predominantly composed of women. According to Stamps (1997):

"Although nursing can be accurately categorised as a female-dominated profession, this only means that women hold the highest number of positions, not necessarily the most powerful ones. For nursing, the picture is even more complicated because of the traditional male-dominated medical profession and hospital hierarchy in which most nurses work" (p. 35).

Seymour et al. (1991, cited in Stamps, 1997), conducted a national survey of nurses in U.S.A. for the Centre of Nursing Research. This study included quantitative and qualitative instruments. Seymour et al. (1991) found that gender roles and women's socialisation issues were the third most frequently mentioned concern among respondents.

Level of Education

Stewart-Dedman (1988), in a questionnaire survey in U.S.A., examined the difference in job satisfaction in relation to type of nursing education among recent graduates in three types of nursing programme: an associate degree programme, a diploma programme, and a baccalaureate programme. The sample consisted of 282 registered, full time employed nurses. Baccalaureate nurses reported lower job satisfaction than nurses from an associate degree programme or diploma programme. A weakness of the study is that the three programmes are not defined or described. Moreover, the instrument which was used to measure the difference in job satisfaction between the nurses from the three levels of nursing education was a newly developed instrument, for which the researcher did not do any statistical work regarding validity and reliability.

Similarly, others like Cavanagh (1992a) in a study mentioned below found that staff nurse satisfaction decreases with increasing level of education. Furthermore, Price

and Mueller (1981) suggest that the level of education achieved by a nurse may be associated with dissatisfaction at work and possible turnover. Higher levels of education and training may result in poor job satisfaction if there are constraints within an employee's organisation, which prohibit the use or development of knowledge or ability.

On the other hand, a meta-analysis by Blegen (1993) on the satisfaction literature examined how often variables were included in studies assessing levels of nurse satisfaction. Education was frequently included, but only small relationships were noted between education and satisfaction.

Practice Area

There has been a substantial amount of research into whether the critical care nurse has a job that is more dissatisfying and stressful than those of other nurses working in other nursing areas. Stamps (1997, p: 288) mentioned that Hlavac conducted a study, as part of her master's thesis, to compare the level of work satisfaction of nurses working in a medical- surgical unit and an adult critical care unit, using the instrument developed by Stamps (1978). A sample of 123 registered nurses employed in a 361- bed acute care hospital in U.S.A was given the questionnaires, with 87 responding for a response rate of 70 percent. Of the 87 respondents, 40 worked in an adult critical care unit, and the other 47 worked in either a telemetry unit or a medical-surgical unit. Hlavac, in her study, could not demonstrate any differences, with the exception of a finding that medical- surgical nurses were more dissatisfied with task requirements than nurses working in a critical care unit. She also discovered that nobody was very satisfied. The results of this study are inconsistent and confusing, a primary reason for this being the several types of measurement used. Salvitt et al.

(1978) found that nurses in special care units, such as intensive care units and operating rooms scored higher in job satisfaction. Medical and surgical nurses scored lowest in the area of job satisfaction.

Yamashita (1995) found, in the study mentioned earlier, that there were significant differences between adult and paediatric nurses; paediatric nurses being less satisfied than adult nurses. Also, there was a significant difference in job satisfaction between medical-surgical nurses and ICU nurses. Medical- surgical nurses were more satisfied than nurses working in the intensive care unit (ICU).

Nationality

Pizer et al. (1992), in the USA, compared the job satisfaction between foreign (N = 322) and American educated nurses (N = 535). While they found demographic, education and work differences, there was no difference in the level of job satisfaction between the two groups.

2.4.3.2. Organisational and Job- Related Factors

A number of organisational and job- related factors associated with nurses' job satisfaction have been identified as common in many studies and will be discussed below.

Nurse- Nurse Relationship

Many nursing studies highlight good social relationship in work as contributing substantially to nurses' job satisfaction. Gillies et al. (1990) conducted a pilot study to ascertain whether the organisation climate in nursing units was related to nurses' job satisfaction. The term organisational climate referred to a set of nine measurable properties of the work environment, such as structure, responsibility, reward, risk,

warmth, support, standards, conflict, and identity, which were assumed to influence the motivation and behaviour of people who live and work in this environment. The researchers used a convenience sample of 34 nurses from four patient units in an urban teaching hospital in United States. Job satisfaction was measured with the Stamps et al. (1978) Work Satisfaction Questionnaire, which indicated a high internal consistency reliability in the study ($r = .91$). The Organisational Climate Description Questionnaire was used to measure the work environment characteristics. The findings of this study showed that a moderate correlation between nurse' job satisfaction and "climate of warmth" - defined as the feeling of general good fellowship that prevails in the work group atmosphere- ($r = .41, p = .007$), and a strong correlation between job satisfaction and "climate of support" - defined as perceived helpfulness of managers - ($r = .60, p = .0001$). However, the validity of the findings is limited due to the small and non-random sample used in the study, which does not permit any generalisation of findings and also affects negatively the reliability of the climate questionnaire.

According to Marshal (1980) working relationships with immediate colleagues and supervisors are more often mentioned in the literature as positive than as negative predictors of job satisfaction.

Nurse-Doctor Relationship

Nurse-doctor interaction is an essential element of working relationships in nursing and research has identified it as central to nurses' job satisfaction. Lim et al. (1998) conducted a study in Singapore to examine the relationships among three potential sources of stress, namely, demands from patients/ relatives, demands from doctors, and perceived job image, and several work- related outcomes, namely, job satisfaction, organisational commitment, intention to quit, and job induced tension.

They used a random sample of 865 nurses representing various areas of nursing from two tertiary-care hospitals in Singapore. Patients' demands and doctors' demands scales seem to be created by the authors themselves. Perceived job image was assessed with five items adapted from Wotruba's (1990) job image scale. Job satisfaction was measured using the five-item general satisfaction scale adopted from the Job Diagnostic Survey (JDS) developed by Hackman and Oldham (1975). Organisational commitment was measured by a scale developed by Mowday et al. (1979). The scale developed by House and Rizzo (1972) was used to assess job-induced tension. Finally, intention to quit was measured with the three-item index developed by Cammann et al. (1979). The results of this study identified that demands from doctors were positively associated with job induced tension and negatively associated with job satisfaction. The authors concluded:

"While these individuals (nurses) accord a high degree of respect of prestige to doctors, unfortunately nurses often have to struggle for recognition and respect from these people (doctors), as they often perceived as working under the operational control of doctors" (p. 280)

This study has inherent limitations. One limitation is that the data collected were largely self-reported. One can criticise the fact that the researchers did not give enough information about the instruments used to measure patients' and doctors' demands, for example whether they were established ones or were developed for the purpose of the study. Moreover, the JDS, which was used to measure job satisfaction, was not specific for nurses.

In a similar vein, the study of Baggs et al. (1990) attempted to identify whether general collaborative practice between nurse and doctor, and in particular, collaboration in making decisions to transfer patients from the Intensive Care Unit (ICU) to a less intensive level of care, were related to the job satisfaction of critical care nurses. Sixty-

eight critical care nurses working in a medical ICU of a university hospital participated in the study. The results indicated a significant positive correlation between nurse-doctor collaboration on the transfer decision and nurses' job satisfaction ($r = .67$; $p < .05$). On the other hand, no significant correlation was found between general collaboration and nurses' satisfaction ($r = .08$), indicating that collaboration alone does not increase nurse satisfaction. However, generalisation of the study findings is not possible, since the study was conducted in a single intensive care unit of one medical centre. Also, the Decision About Transfer (DAT) scale, which was used to measure collaboration and satisfaction with respect to specific transfer decisions, was a newly developed instrument for which the researchers did not give any information regarding validity and reliability.

Nurse- Patient Relationship

Nurses' relationship with the patient is obviously a key element in their working life as nurses, but establishing satisfactory relationship with patients can be complicated by several factors. Often there are cultural differences and language problems, as in the case in Oman, between the nurse and the patient. The former may therefore not understand the latter's frame of reference and so may be unable to assess his/her suffering (Davitz et al., 1969).

Most of the previous research in nursing has focused on the relationship between nurses' satisfaction and patient care rather than the direct patient-nurse relationship. Many studies have clearly indicated that delivery of good patient care and provision of physical and emotional supports are central to nurses' job satisfaction. Grout et al. (1981) conducted a study to identify the perceived stressors and satisfiers of critical care nursing. They surveyed 1,238 critical care nurses from 98 intensive care units (ICU) in

74 hospitals in the United States. The questionnaire used, evolved through a series of interviews with ICU nurses and was pilot tested before being administered to the sample. The findings showed that nearly half of the respondents (45.7%) considered direct patient care as the greatest source of job satisfaction. Close patient contact, quality of nursing care, and patient improvement, progress and recovery were the most satisfying aspects of work in intensive care units.

Moreover, Hutt and Waite (1989) surveyed 4,000 nurses selected randomly from the membership records of the Royal College of Nursing, United Kingdom, aiming to identify their attitudes towards features of working life, factors influencing leaving National Health Service (NHS) nursing, and factors influencing retention in or returning to NHS nursing. The results of this study indicated that the perception that a high workload prevented nurses from giving the best care was the second most important reason for leaving or considering leaving the NHS (69% of respondents) after too high stress. In contrast, realistic staffing levels was the factor most influential in retention in or recruiting to NHS nursing.

Professional Status

According to Herzberg et al. (1959), an important precondition of job satisfaction is that the individual finds the work itself personally interesting and meaningful.

Stechmiller et al. (1992), developed a conceptual path model to explain how personal and work-related independent variables and the dependent variables of situational stress, job stress, and internal job motivation contribute to job satisfaction among critical care nurses. The sample consisted of 375 nurses from nine hospitals in Florida, U.S.A. The Job Diagnostic Survey (JDS), which was used to measure nurses' job satisfaction, had a satisfactory internal reliability, since the alpha coefficient for the

study ranged from 0.66 to 0.81. The study indicated that meaningfulness of work—defined as the need of the critical care nurse to experience the job as one that is generally meaningful, valuable, and worthwhile, had the strongest positive effect on nurses' job satisfaction, followed by opportunities for advancement and supervision. Another study was conducted in the United Kingdom by Price Waterhouse (1988), in order to assist health authorities to understand the factors affecting retention and recruitment of qualified nursing staff in the National Health Service (NHS). 7600 nurses were surveyed, some working in the NHS, some in the private sector, and some no longer working as nurses. The findings indicated that "the desire to help others" and "doing an interesting job" were the most important reasons why nurses join and remain in the profession.

Training and Professional Development

Gibson (1994) studied the reasons of turnover among a sample of British critical care nurses. Forty-five nurses from three intensive care units (ICUs), who had left their jobs, took part in the survey; the units were: a general ICU, a cardio-thoracic ICU, and a paediatric cardio-thoracic ICU. The main reasons given for leaving was to attend a full-time course (28.9%). Nurses seemed oriented to extend their knowledge and advance their career by attending post-basic courses, and left their jobs because they could not study, while working in the ICUs. Asked which factors most influenced their decision to leave, the majority cited "lack of career development" (37.8%), dissatisfaction with pay (20%), and discontent with clinical re-grading (17.8%), as the main influences on resignation. Moreover, the study by Williamson (1993) indicated that nurses' perception of achievement was mainly expressed as opportunities for professional development and utilisation of skills. The study was conducted during the implementation of a clinical regrading exercise in the United Kingdom and examined

the association between work variables and job satisfaction and retention amongst neonatal intensive care nurses. A small sample of 50 nurses from a neonatal intensive care unit of a hospital in England participated in the study. Data were collected using semi-structured interview. Herzberg's two-factor theory was used to develop the conceptual framework for the study. The results showed that the majority of the respondents found their work stimulating and rewarding. However, achievement was identified as the factor most influential to nurses dissatisfaction, since 72% felt that opportunities for professional development were not equal between the grades of staff, and 62% felt they were unable to utilise their skills fully. This study has inherent limitations. First, the sample was small and was employed in one unit only. Also, the study was conducted at a time when nurses were seen to be confused and resentful of the implementation of the clinical regrading exercise, which may have influenced their work attitudes.

Administration

Another important factor which nursing studies have identified as affecting the behaviour and attitudes of nursing staff is the nursing administration, including nursing managers, nursing supervisors or the head nurse. Duxbury et al. (1984) described the head nurse as one who controls the flow of information, represents nursing administration, and interprets and implements hospital policy. Based on the results of a large readership survey published in *Nursing 77* in United States in which nearly 17,000 nurses participated, Godfrey (1978) identified poor leadership as the second most important factor of nurses' dissatisfaction. The main complaints about head nurses and nursing/hospital administrators centred on the individual's lack of leadership and management skills, lack of support, failure to follow through problems, not being available when needed, and abuse of authority. However, one cannot generalise beyond

the findings of that study because the sample was not random, but limited to the readers of that particular journal who chose to return the form, and included registered nurses in all categories of positions as well as practical nurses and nursing students. Also, the author gave no interpretation of the methods used.

Stamps et al. (1997, p 45) noted Drews and Fisher's (1996) evidence that, as supervising nurses' management style became increasingly participative, there were higher levels of satisfaction among the staff nurses. Also, she cited work by Lucas (1991), who studied 505 nurses in four different hospitals, using Likert's Management Systems Theory to measure management style and Munson and Heda's satisfaction measure. The outcome indicated that a more participative management style is strongly associated with satisfaction.

Autonomy

Increased autonomy for the staff nurse is a well-recognised goal in the nursing profession. In Blegen's (1993) meta-analysis, autonomy was one of the most commonly included variables, but its effect on satisfaction was only moderate.

Weisman (1982), based on some of the findings from their research at Johns Hopkins, U.S.A., in which about 1200 full-time nurses, all in staff nurse positions in two hospitals, were followed over a 12-month period and interviewed at regular intervals, reported that the nature of hospital nursing jobs and incentive structures contributes to the problem of nursing turnover. The strongest predictor of job satisfaction was perceived autonomy-that is, perceived control over work, including the ability to make decisions on work performance. He suggested that rethinking of the nature of the job and the traditional employer-employee relationship between hospitals

and nurses was needed.

The importance of autonomy in nursing was revealed in the study of Dear et al. (1982). The study proposed to compare the level of job satisfaction, autonomy, locus of control, and turnover between intensive care nurses (ICU) and non-ICU nurses, and to identify the relative importance of these variables in predicting job satisfaction. The study was conducted over a one-year period, among 234 ICU nurses and 868 non-ICU nurses employed full-time in two large university hospitals in the United States. The findings indicated that both ICU and non-ICU nurses had similar levels in respect to the measured variables, and both identified as the strongest determinant of job satisfaction a sense of autonomy ($r = 0.45$; $p < 0.05$), followed by a sense of internal control ($r = -0.25$; $p < 0.05$). Conversely, low perceived autonomy was ranked as the second most important factor determining turnover ($r = -0.10$). The findings, however, should be considered in regard to methodological limitations related to the instruments employed to measure outcome variables. Dear et al (1982) did not report whether the internal consistency reliability of the Job Descriptive Index (JDI), had been tested before use in the study. Moreover, the JDI, like other instruments which, have been used to measure nurses' job satisfaction without being designed for this purpose, is believed not to reflect the characteristics of health industry jobs. Consequently, it is doubtful whether the four-item scale used to measure autonomy, taken from the University of Michigan's Quality of Employment Surveys, accurately represents nurses' perception of autonomy. Autonomy in critical care is also discussed in the study of McClune (1986), who investigated nurses' job satisfaction in a general cardio-thoracic intensive care unit. McClune argued that critical care nurses have more responsibility and autonomy in their job than nurses in other areas. She attributed this partly to the high dependence on nurses resulting from patient's severe sickness and partly to the high nurse/patient ratio

whereby each nurse works on a whole-task basis and gives total care to her/his patients. She claimed that in addition to individual autonomy, intensive care nurses have more autonomy as a group, in that they co-ordinate and control what happens in the intensive care unit.

Workload

One of the important variables that have been reported to influence nurses' job satisfaction is workload. The following studies showed that workload and other task requirements are important causes for nurses' turnover and nurses' dissatisfaction.

Weisman et al. (1980) completed a two-wave panel study of hospital staff nurses at two large university-affiliated hospitals in one metropolitan area in the U.S.A. (N=1,178) to assess the determinants of nursing turnover in a multivariate framework, with particular attention to identifying organisational factors which could be manipulated by hospitals to increase job satisfaction and reduce turnover. Nurses were interviewed and followed over a one-year period to identify voluntary resignation. Three types of data sources were utilised: (1) structured interviews for baseline data; (2) reports from head nurses for administrative view of the type of nursing; such as functional, team or primary; and (3) hospital documents; such as activity and staffing reports. Job related attributes that contributed to turnover included: overtime work, rotating shifts, high workload, unresponsive head nurse leadership, inappropriate task delegation by physicians, inadequate communication with head nurse, inadequate time for professional growth and development, mode of nursing and position level.

Moreover, Wandelt et al. (1981) interviewed 30 staff nurses in small groups. Two groups were from a large metropolitan hospital, two groups from a medium-sized hospital in a small mid-Texas town, and two groups from a medium-sized hospital in a

large west Texas City. They found that staffing shortages were producing overload and overwork. Nurses reported that they were worried about whether they had completed all their work and felt guilty if they were unable to give adequate or complete care. Nurses wanted to provide teaching, emotional support, and discharge planning for their patients. Other services contributed to the nurses' work overload by expecting that the nurse would do things for them just because the nurse was there. However, the validity of the findings is limited due to the small sample used in the study, which does not permit any generalisation of findings.

Helmer and McKnight (1988) used information collected from the Collective Bargaining Organisation of the Hawaii Nurses Association as part of pre-contract negotiation planning to develop short- and long-term solutions for nursing turnover. 85% of these nurses identified flexible scheduling to support patient care needs as necessary to gain and retain nurses. Poor work satisfaction occurs when nurses are not able to meet their expectations for patient care. Also, inadequate nurse-patient ratios to assure quality care and uncertainty and ambiguity about treatment of patients foster poor work satisfaction.

Pay

There is no doubt that pay plays a central role in determining job satisfaction or dissatisfaction. However, despite the centrality or importance of pay, nursing research has not identified a straightforward relationship between pay and nurses' job satisfaction.

Cavanagh (1992a) studied the relationship between selected variables and job satisfaction using structural modelling techniques. The selected variables were salary, kinship, communication, social integration, justice, promotion, participation, education,

opportunity and routine. A convenience sample of 221 female nurses working full-time in the greater Los Angeles area U.S.A. was used. Subjects were required to complete a questionnaire, originally created by Price and Mueller (1981) to assess respondents' characteristics on the selected variables. Coefficient alpha was used to determine the internal consistency of this instrument. The overall alpha was 0.83, while the range of individual subscales was 0.74 to 0.90. Validity was determined by using factor loadings; these ranged from 0.54 to 0.89. In this study the level of salary was not found to be a statistically significant factor in determining job satisfaction. However, the validity of the findings is limited due to the non-random sample (convenience sample or accidental sample as it is sometimes called) used in the study, which does not permit any generalisation of findings and also affects negatively the reliability of the questionnaire.

According to Cavanagh (1992a) many conflicting findings have been reported in the literature regarding salary. Indeed, Cavanagh (1992a, P. 709) cited that Froebe et al. (1983) and Munro (1982) found that staff nurses considered salary to be important in seeking employment, whereas Caston and Braitto (1985) found that pay was not a highly regarded feature of work

Blegen (1993) completed a meta-analysis of data from 48 studies and 15,048 subjects, describing the magnitude of the relationships between nurses' job satisfaction and the variables most frequently associated with it. Thirteen variables were frequently used in job satisfaction studies. Nine were organisational features and job attitudes. Job satisfaction was most strongly related to stress ($r = -0.609$) and commitment ($r = 0.526$). Five variables had moderate size correlations including communication with supervisors ($r = 0.446$), autonomy ($r = 0.419$), recognition ($r = 0.415$), routinisation ($r = 0.412$), and

communication with peers ($r = 0.358$). Blegen's (1993) meta-analysis did not even include pay because it did not appear often enough in the literature she surveyed. Accordingly, the literature cited below mainly indicates how nurses perceive the importance of and experience with pay.

Thompson (1981) studied the current level of job satisfaction in terms of six specific work components, and investigated whether a relationship existed between these components and satisfaction with work. The sample was composed of 284 nurse anaesthetists from a region in the U.S.A. The questionnaire used to collect the data, was developed using the work of Stamps et al. (1978) as a model, and was pre-tested before distribution to the respondents. However, Thompson did not report any reliability score obtained from the pilot study. The results indicated general satisfaction of the nurses with their jobs (56.6% of respondents). Pay was ranked as the most important work factor ($n = 62$), but at the same time the one giving the least satisfaction to nurse anaesthetists (62.3% reported dissatisfaction). Further calculations to compare the scores for job satisfaction and the scores for the pay factor, found no correlation between the two variables ($r = -0.05$). This is indicative of how complex measurement of job satisfaction is, since dissatisfaction with any one work factor does not necessarily signify dissatisfaction with work. In the United Kingdom, Scott and Gray (1994) reported that nurses' satisfaction with pay had fallen from 25% in 1992 to 16% in 1994. They suggested that this was directly related to the pay policy over the last years and the attempts to implement a local pay scheme.

Job Stress

Although the concept of stress is relatively modern, its study has attracted an immense amount of interest and a variety of definitions and models have been

developed. Lim et al. (1998) defined a stressor within the nursing context as “a perceived or objective external factor, such as demand, pressure, constraint, or deprivation that brings about strain such as dissatisfaction, performance decrements, and negative work-related attitudes” (p.271).

A vast amount of research done so far has investigated the factors determining stress in nursing, many of which are those already discussed as determining job satisfaction. Wheeler et al. (1994) reported some of them, including: work overload, time pressure, organisational and management issues, poor work relationships, and poor working conditions and facilities. An area of major concern is the consequences of job-related stress in terms of impaired organisational efficiency, high staff turnover, psychological symptoms and reduced job satisfaction. The stress-job satisfaction relationship has been identified as a negative one in several studies, controlling for stress as the independent variable, for example Stechmiller (1992) in the study described under the section of nurses' professional status.

Stamps (1997, p. 265) described some doctoral researches which studied the relationship between job-related stress and job satisfaction. One of these was a study by Donna Adams. Adams' research involved all staff registered nurses in a large, non-profit urban hospital in U.S.A. Her focus was to analyse the relationship between stress, job satisfaction, and organisational commitment. Adams created a statistical model to analyse the relative contributions of the several variables in what is a very complicated relationship. In this model, she studied each of the six components of the Stamps' instrument (Nurses and Work Satisfaction) separately, which gave her more sensitive results. The results of her study demonstrate a relationship between work satisfaction and stress. All work satisfaction components (interaction, autonomy, administration,

task requirements and pay) except for professional status were negatively influenced by stress, with an especially strong negative relationship between work stress and task requirements.

In Blegen's (1993) meta-analysis, described under the section on nurses' pay, job satisfaction was found to be strongly related to stress ($r = -0.609$) and the negative sign indicates an inverse association.

Ehrenfeld (1991) investigated whether personal characteristics, professional attributes, and structure of work influence nurses' perception of stress and satisfaction with the workplace. The study was conducted among 23 Coronary Care Units (CCUs) in Israel and involved 248 randomly selected critical care nurses. The questionnaires, which were developed to measure outcome variables, were pre-tested and found to have satisfactory internal consistency reliability: Cronbach's alpha = 0.81, 0.85, and 0.82 for the job satisfaction scale, the stress scale and the structure of work scale respectively. Questionnaires were also reviewed by experts to assure content validity. The research questions addressing whether any relationship existed between job satisfaction and perceived levels of stress revealed a weak correlation ($r = 0.16$; $p = 0.00$), making prediction of the relationship between the two variables not possible. However, a deficiency in the construction of the questionnaires gives an explanation for this result. As the author reported, the item considering "freedom" might have been ambiguous for respondents, since it was perceived both as a source of satisfaction, when related to autonomous action, and as a source of dissatisfaction, when linked to increased responsibility.

Job-related stress has also been studied in relation to other work variables. These variables were also most frequently associated with job satisfaction. Chapman (1993)

investigated the relationship between nursing stress and collegial support as well as different socio-demographic variables. A random sample of 500 staff nurses working in acute care settings was selected from hospitals with 33 to 1000 beds in 21 Iowa counties, Canada. Data were collected via a mailed, 15-item socio-demographic, self-report questionnaire and Staff Nurse Survey containing the Survey of Collegial Communications (SSC) and the Nursing Stress Scale (NSS). The SSC was adapted from the Survey of Organisations Instrument developed by the University of Michigan Institute of Social Research. The NSS was developed by Gray-Toft and Anderson (1981). Chapman found that age, education, and type of unit significantly affected nursing stress. Nurses who had been employed in nursing one to two years had the highest frequency of stressors. Newly employed nurses may experience a "honeymoon" period. Chapman suggested that, after orientation co-workers might reduce social support. He also claimed that nurses with higher education might have higher expectations of their work performance. Chapman also reported other major sources of stressors in the acute care hospitals: death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload, and uncertainty concerning treatment. Chapman concluded that efforts must be directed at eliminating these stressors or assisting nurses to cope with job stressors. The researcher did not report whether the internal consistency reliability of the instruments had been tested before use in the study.

A significant inverse relationship between job satisfaction and burnout was found in a study conducted by Dolan (1987). Before discussing the study, the essential elements of burnout will be presented as seen by Dolan herself. According to Dolan (1987):

"All the definitions of burnout share the following essential elements: decreased energy, shown by inability to keep up the working pace; decreased self-esteem, manifested in a sense of personal failure related to work; output exceeding input, whereby the individual perceives a greater expenditure of him/herself into the job for an ever smaller profit or reward; a sense of helplessness/hopelessness and being unable to perceive alternate ways of functioning; cynicism, negativism in relation to self, others, the job institutions, etc; and a feeling of self-depletion" (p. 3).

Dolan (1987) investigated the relationship between job satisfaction and burnout in two groups of recently qualified staff nurses from general and psychiatric fields of nursing, and a group of hospital administrative, which was acting as a control group. The hypothesis tested was that high job satisfaction would be associated with low burnout for the three groups. Ninety subjects, employed in nine hospitals in Dublin in Ireland, participated in the study. The Maslach Burnout Inventory (MBI) was used to assess the level of burnout, while job satisfaction was measured by a questionnaire developed by the researcher. The results identified a significant correlation between burnout and job satisfaction for the general group of nurses ($r = 0.68$; $p < 0.0001$) which, according to the researcher, confirmed the thesis that job satisfaction is a reliable indicator of burnout. No significant correlations were found for the other two groups. However, one can challenge the validity of the findings due to deficiencies attributed to the instruments used in the study. The researcher did not confirm the validity of the questionnaire, which she constructed to measure job satisfaction. No background information was given about the design of items, or the criteria for including them in the scale. In addition, it is not clear whether the reliability of the instrument was tested since, according to the author (p. 6), "an attempt was made to determine the reliability of respondents' answers", but no further details were revealed. Reservations were also expressed regarding the validity of the Maslach Burnout Inventory (MBI). The researcher argued that the instrument proved too sophisticated, with many of its statements being "subtle", "ambiguous", and "vague". Also, the fact that the MBI was

developed in the United States makes questionable its suitability for use in another country.

Summary of the Literature Review on Nurses' Job Satisfaction

The findings regarding relationships between the background variables (age, sex, and level of education) of nurses and their levels of job satisfaction in previous studies have been inconsistent studies. The organisational and job-related factors that have been reported to influence nurses' satisfaction were interaction with colleagues, with patients and with doctors, status of the job, autonomy, administration, workload, pay, and job stress. The following reviews summarised several variables that influence nurses' job satisfaction.

Hinshaw and Atwood (1984), in their review of nursing literature, found important environmental factors including: the clinical service and type of work, nursing care delivery model, degree of professionalisation, organisational climate, supervision and interpersonal relationships. In addition, they found certain job characteristics to be important: status, autonomy, repetition of duties, the nature of tasks to be performed, job outcomes, and pay.

Blegen and Mueller (1987) studied 13 determinants of job satisfaction of nurses using a causal model. These determinants included opportunity, routinisation, autonomy, job communication, social integration, distributive justice, promotion, motivation, pay, workload, general training, kinship responsibility, and unit size. Significant variables included non-routine tasks, perceived opportunities for promotion, the perception that rewards were distributed fairly, day shift, absence of over- and under-workload, high kinship ties in the community, and the perception of limited job opportunities outside the hospital. The results of Belgen and Mueller indicated that

routine tasks negatively affected the job satisfaction of nurses. Also, they found that distributive justice regarding rewards was a source of job satisfaction.

2.5. Measurement of Job Satisfaction of Doctors and Nurses

Most conceptual and methodological work on the measurement of job satisfaction has focused on the study of industrial workers rather than doctors and nurses.

Many methods are used to study job satisfaction; the findings of research on satisfaction depend on how satisfaction is measured. The most common way of determining individuals' satisfaction with work is by asking them. According to Hoppock (1935) three approaches are usually used in measuring job satisfaction. First is the direct question about satisfaction: "Do you like your job?" The second type is phrased as a question, "If you had it to do again, would you choose your present occupation?" The third approach infers satisfaction from the worker's behaviour. How workers feel about their jobs may be less well revealed by verbal behaviour than by performance on their jobs.

Hoppock (1935) found that when direct questions were asked about a person's job satisfaction, most workers, regardless of socio-economic level, indicated satisfaction. Although there were some expected differences in satisfaction among workers (those working at a higher level were more satisfied than those at lower level) the general picture was of overall job satisfaction. However, when the question was phrased differently, different results were produced. Although in response to the direct question, nine out of ten workers claimed to be satisfied, the proportion dropped to about two-thirds when a differently phrased question was used.

Later many job satisfaction scales have been carefully developed, and in many studies, their reliability and validity have been established. The most important ones are: the Job Satisfaction Survey (JSS; Spector, 1985), the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969), the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967) and the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975). These are facet measures of job satisfaction. Each scale has been used in many research studies. There are two general job satisfaction scales: the Job in General Scale (JIG; Ironson, Smith, Brannick, Gibson, & Paul, 1989), and the Michigan Organisational Assessment Questionnaire satisfaction subscale (Cammann, Fichman, Jenkins & Klesh, 1979).

The Job Descriptive Index (JDI) has been the most popular with researchers. The scale assesses five facets:

Work

Pay

Promotion

Supervision

Co-workers

The JDI is a reliable and valid measure of job satisfaction, but the further away from blue-collar workers and the more time passes, the less appropriate it becomes (Lichtenstein, 1984a). Breslau, Novack and Wolf have used this scale in 1978 in the United States. Their study is extensively quoted in the literature, both for content and methodology. Breslau et al. used three scales from the Cornell Job Descriptive Index (JDI) to measure physician satisfaction with the work itself, pay, and co-workers.

According to Lichtenstein (1984a):

"The questions and their format are not appropriate for the type of work physicians perform, and their use with this population possibly could have led to confusion on the part of

respondents. Several of the hypotheses generated in the study were not supported, possibly because of measurement problems in the satisfaction variables" (p. 60).

The most recent use of the JDI is in an article by Ndiwane (1999) involving a study that took place in three major hospitals and three rural health centres in the Northwest Province in Cameroon. This study examined whether there were significant differences in job satisfaction between nurses in urban hospitals and rural community health settings in the six major components of the job: work, pay, promotions, supervision, co-worker relationships, and the job in general. The Job Descriptive Index (JDI) questionnaires and the Job in General Scale (JIG) were used to measure job satisfaction. The data were analysed with inferential statistics. Focus groups interviews were also conducted, and content analysis was used to analyse the data. This is the only study found by the researcher, which used both questionnaires and focus group interviews in studying nurses' satisfaction. Although the Cornell JDI is considered one of the most valid and reliable measures of job satisfaction that exists, it was designed to be used with blue-collar workers, not doctors or nurses.

Similarly, another scale that is sometimes used to provide a measure for doctors and nurses satisfaction is the Warr-Cook-Wall job satisfaction scale (Warr, Cook, & Wall, 1979), which has high reliability and was developed for a British population. The advantages of this particular scale are its shortness (14 items), reliability, and ease of use. The disadvantage of this measure is that it was originally developed for a variety of British occupations, so almost one-third of the items are not really appropriate for doctors such as satisfaction with "your immediate boss" or "your job security." This scale is frequently used, particularly in British studies, but it is almost always used in conjunction with other scales or measures of satisfaction (see for example, Makin et al., 1988 and Cooper et al., 1989).

Information about doctors' and nurses' satisfaction has been gathered in many ways, ranging from qualitative methods, including personal interviews and semistructured questionnaires, to more quantitative methods, including more structured questionnaires and even some attempts to create some part of an attitude scale to measure doctors' or nurses' satisfaction.

"Surprisingly few studies have been conducted on the topic of physician job satisfaction; those that do exist generally have included the measure as a concern secondary to some other primary research aim or have neglected some of the complexities involved in measuring the concept" (Lichenstein 1984, p. 61).

According to Lichenstein (1984a) in several previous efforts at measuring doctor job satisfaction, researchers have used either a single, overall question to determine the doctor's level of satisfaction or multiple questions that simply were summed and reported as a single measure of satisfaction. For example, David Mechanic (1975) in U.S.A. asked a single question about each of nine different components of satisfaction and reported the results as though each question actually represented a separate facet of work. No attempt was made to analyse the set of items for their commonality or distinctiveness, so there is no way of knowing whether the nine questions actually represent nine different facets of satisfaction, or just two or three.

According to Stamps and Cruz (1994) one of the first efforts at constructing a scale to measure doctor satisfaction was completed by Lichenstein (1984a) from the USA. Lichenstein (1984a) elaborated a conceptual framework for measuring doctor satisfaction drawing heavily on the prior work by Stamps and Piedmonte (Stamps et al., 1978) in developing a scale to measure nurse satisfaction. He developed a satisfaction scale and field-tested it on a population of doctors working in highly bureaucratic settings- prison health programmes across the United States. A factor analysis produced six discriminable facets of doctor job satisfaction, composed of 33 items. These facets

were satisfaction with resources, self-directed autonomy, other-directed autonomy, patient relationships, professional relationships, and status. The scale was designed for use with one specialised group of doctors, those who work within a prison setting, so it cannot be used in its original form

Another approach at constructing a scale to measure doctors' satisfaction was taken by Schulz and Schulz (1988) in a study that took place in the mental health system in Germany. Their work draws heavily on Liechtenstein's work, and their original scale was constructed around Liechtenstein's six facets mentioned above. Subsequent factor analysis produced three factors that accounted for 43 percent of the variance: satisfaction with resources, satisfaction with autonomy and status, and satisfaction with professional relations. They also added a fourth component; one that specifically measures overall satisfaction. The scale has been used in samples of psychiatrists in Germany, Great Britain, and most recently in a large sample of doctors practising in a managed care environment in Wisconsin (Schulz et al., 1992). Schulz and associates at first limited their work to psychiatrists; the more recent study includes all specialisms.

In the same way, scales designed to study job satisfaction among nurses have been charged with major inadequacies. MacPhail (1988), in her literature review on job satisfaction in the nursing profession, pointed out that many studies fail to establish the validity and reliability of newly designed instruments, or to re-establish reliability on the study population, when instruments, designed and used by others, are selected. According to Traynor and Wade (1993), a fundamental deficiency is that many researchers do not justify the exclusion and inclusion of various items during the development of their scales. Mueller and McCloskey (1990) argue that, despite the documentation of numerous measures, there is no readily available, easy-to-use and

validated measure specifically designed to assess the job satisfaction of nurses.

Stamps et al. (1978), developed an instrument to measure the job satisfaction of health professionals, mainly nurses. Stamps and her colleagues seem to have followed closely the accepted principles for the measurement of job satisfaction. Stamps' Index of Work Satisfaction (IWS) is one of the best known and most widely used tools to measure nurses' response to their work. This instrument has been revised by Stamps (1997). The instrument consists of measures for six factors or components of job satisfaction: pay, professional status, autonomy, organisational policies, task requirements, and interaction. The IWS is designed to measure those factors within the scope of the organisation, and the components included are designed to measure a variety of factors that are central to the perception of satisfaction. It is important to be able to measure all aspects of satisfaction in such a way as to provide information that is of practical use to management. The measurement has two parts: Part A (Paired Comparison) and Part B (Attitude Questionnaires). Stamps (1997) mentioned many studies that used this tool as a measure for satisfaction. Most of these studies used only Part B, the attitude scale measuring the current level of satisfaction, and most of them view satisfaction as a dependent variable. She also mentioned that some researchers modified the IWS significantly or used it to measure a different construct than satisfaction. In all cases, they identified their instrument as coming from the IWS, although each used a slightly shorter version of the IWS. Additionally, Stamps (1997) mentioned that some of these studies created measures of satisfaction by selecting items from more than one tool.

The Stamps index of work satisfaction was initially developed using hospital-based nurses. In the early development phases, the scale was modified for use with

ambulatory physicians (Stamps et al., 1978), and Lichenstein (1984a) used it to develop his physician satisfaction scale as mentioned above. In the later development phases, this scale was modified for use with emergency medical technicians (Stamps and Shopnick, 1981), and also for many different types of nursing professionals (Stamps et al., 1986).

Based on thorough review of the literature written on the measurement of doctors' and nurses' satisfaction, and on the researcher's experience as a doctor, this instrument developed by Stamps et al. (1978) was found to be more appropriate for this study. Therefore, the researcher has built the questionnaires for doctors and nurses mainly on Part B of this instrument. For more details see the following chapter.

The comparison of doctors' satisfaction to that of other health care professionals like nurses is more complicated, because of the problem of modifying measurement tools to be appropriate to more than one health professional group. For this study, the researcher has developed two job satisfaction scales, one for doctors and the other for nurses, with many similarities.

At the present moment, there are two orienting concepts: the inherent stress within a health professional's role and the identification of factors that contribute to doctors and nurses satisfaction or dissatisfaction. They are two separate lines of research and should be so pursued. Although it is tempting to investigate the overlap that exists, it is more appropriate to develop separate measure for each (Stamps and Cruz, 1994). Linn's work on developing a scale is somewhat limited in applicability because of her efforts to measure both satisfaction and stress (Linn et al., 1985b).

According to Stamps and Cruz (1994) although there are several examples of research into doctor satisfaction, there is still a lack of agreement in terms of

conceptualising satisfaction, extending as far as whether level of satisfaction is a dependent or independent variable. Stamps and her colleagues (1994) treated satisfaction as a dependent variable and certain doctor characteristics that seem to influence the expectations of a doctor, including age, gender and specialism, as independent variables. Schulz and associates presented a model in which satisfaction is treated as a dependent variable and perceived clinical autonomy is viewed as an intervening variable (Schulz and Schulz, 1988). However, a particularly common approach is to consider satisfaction as an outcome of some organisational reconfiguration, especially efforts to increase continuity of care (Linn et al., 1985a & 1985b). In this study, satisfaction and its components were viewed as dependent variables and two separate measures were used for job satisfaction and job-induced stress as can be seen in next chapter.

In medicine, the typical view of stress is that it arises from high levels of dissatisfaction, and some of the research supports the relationship between stress and low level of job satisfaction (Makin et al., 1988; Clarke et al., 1984). However, others point out that stress levels are not related to level of satisfaction (Linn et al., 1986). Also, the stress-job satisfaction relationship, in nursing, has been identified as a negative one in several studies, controlling for stress as the independent variable (Norbeck, 1985; and Neubauer, 1992).

2.6. Conclusion

There are important factors from the literature on job satisfaction in general and the literature specific to doctors and nurses and their satisfaction with their work in medicine and nursing services that are useful in this study. By integrating these three bodies of literature, it is the aim of this research more completely to understand the

factors with relation to the job satisfaction of doctors and nurses. The variables from the literature useful to this research are highlighted in the following table.

Table 2.1 : Personal, Organisational and Job-Related Factors Associated with Job Satisfaction

Determinants of job satisfaction	Job Satisfaction in general	Doctors' Job Satisfaction	Nurses' Job Satisfaction	This Study
Personal Factors	Age, Sex,	Age, Sex,	Age, Sex, Tenure, Level of Education	Doctors: Age, Sex, Nationality, Religion, Position, specialisation, Experience, Marital status, Qualifications, Weekly working hours. Nurses: Age, Sex, Nationality, Religion, Marital Status, Position, type of practice, Experience, and shift patterns.
Organisational and Job- Related Factors	Autonomy, Relationship with Co-workers, Commitment, Administration and Management, Pay, Workload, Working Conditions, Job Stress.	Workload, Interpersonal Relationships, Administration, Relationship with patients, Pay, autonomy, Speciality and Job Stress.	Workload, Relationship with Colleagues, Administration, Relationship with patients, Relationship with doctors, Job status, Pay, autonomy, Practice areas and Job Stress.	Doctors: Pay, Professional Status, Administration, Workload, Patient-Doctor Relationship, Relationship with Colleagues, Autonomy, and Job Stress. Nurses: Pay, Professional Status, Administration, Workload, Relationship with Colleagues, Nurse-Doctor Relationship, Nurse-Patient Relationship, Autonomy, and Job Stress

A review of the literature on measurement of job satisfaction reveals that an instrument exists which measures those variables in a hospital context, namely Stamps' Index of Work Satisfaction (1978, revised 1997). Although developed predominantly for use with nurses, it provided the basis for Lichtenstein's (1984) Physician Satisfaction Scale and in the researcher's view was applicable (with some modification) to the roles of doctors and nurses in Oman. The process of modifying this instrument, and other aspects of the research methodology, are presented in the next chapter.

CHAPTER THREE

THE RESEARCH METHODOLOGY

3.1. Introduction

This chapter aims to give a description of the procedures that were followed in this research in order to collect the data related to the issue of this study. Research design serves many functions: it provides the researcher with a blueprint for studying social questions; dictates the boundaries of research activity and enables the investigator to channel his energies in specific directions; and it enables the researcher to anticipate potential problems during the implementation stage (Black and Champion, 1976). The chapter begins by presenting the hypotheses of the study. Then, the survey population and the procedures implemented to select the study sample are described. The chapter also describes the techniques used to collect the baseline data, including the survey packages and the focus group interviews, with sections about validity, pilot study, and reliability. An explanation is then given of the implementation of the data collection process and the statistical techniques used in the analysis of the data. The final section is devoted to a description of the focus group interviews: their background, strengths and limitations, planning of the focus groups, running of the focus groups and their analysis.

3.2. Statement of the Hypotheses

A combination of the aims and objectives of this study, and a review of literature related to the main assumptions of this research, has given rise to the following null hypotheses which will be tested in Chapter Four (these hypotheses are for both doctors and nurses unless specified).

Hypothesis one: There is no statistically significant relationship between background characteristics (age, gender, religion, marital status, number of children, availability of family members in Oman for expatriates, salary, designation, qualifications, period worked in Oman, years in the current post, work experience, shift patterns (nurses), and weekly working hours (doctors)) and job satisfaction.

Hypothesis two: There is no statistically significant difference between Omanis and non-Omanis with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

Hypothesis three: There is no statistically significant difference between the nurses/doctors at different health institutions with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

Hypothesis four: There is no statistically significant difference in job satisfaction between nurses working in different practice areas and similarly there is no statistically significant difference in job satisfaction between doctors working in different specialisms.

Hypothesis five: There is no significant correlation between job satisfaction (overall job satisfaction and satisfaction with each component) and job-induced stress.

Hypothesis six: There is no statistically significant difference in job satisfaction between nurses working in different wards.

3.3. Selecting the Sample

The way in which a researcher chooses a sample depends on his research objectives. As argued by Arber,

“Some researchers select samples in order to provide the maximum theoretical understanding, while others are primarily concerned to obtain a representative sample so that they can make inferences about the whole population” (Arber, 1993; p. 86).

There are many sampling techniques available, and the choice of a particular technique is determined by the purpose and the design of the study and by the time and resources available. The most popular sampling procedure is probability sampling. Here, the sample is drawn in such a way that each member of the population has an equal probability of being included in the sample (Weisberg and Bowen, 1977). The sample of the study must be representative of the whole population from which it is selected if it is to provide useful estimates about the characteristics of that population. A sample will be representative of the population from which it is drawn if all elements of the population have a specific non-zero probability of being included in the sample (Oppenheim, 1992). Babbie (1975; p. 140) argues that “samples need not be representative in all respects; representativeness is limited to those characteristics that are relevant to the substantive interests of the study”.

The ultimate purpose of survey sampling is to select a set of members from a population so that a description of those members accurately describes the whole population from which they are drawn. Probability sampling provides a method to meet such criteria. Babbie (1975; p. 145) argues that “random selection offers the researcher access to the body of probability theory, which provides the basis for his estimates of population parameters and estimates of errors”

The main purpose of this study is to identify the determinants of job satisfaction of doctors and nurses who work under different types of health care providers in the capital region, Muscat, Sultanate of Oman. These are the University Hospital, the Ministry of Health (hospitals and health centres) and the private sector. Three hospitals and three primary care health centres were included in the study. The first of these organisations is Sultan Qaboos University Hospital, the only university hospital in

Oman. It belongs to Sultan Qaboos University, College of Medicine and it is under the Ministry of Higher Education. This hospital has different salary and promotion systems from the other hospitals. The second hospital is the Royal Hospital, the principal hospital in the Ministry of Health, which receives referrals from all over the country. The Ministry of Health provides health services to all citizens in Oman through a network of hospitals, health centres and polyclinics distributed in all parts of Oman. The Ministry of Health follows the Civil Service systems of salary and promotion. The third hospital is Al-Shatti hospital; the first consultant-based private hospital with 30 beds built to international standards and the only private hospital of its kind in the Sultanate of Oman. These hospitals have been selected for the study because they represent different employers and they are all located in the same geographical area, the capital, Muscat. Additionally, they have almost all the specialisations, whereas the other Ministry of Health hospitals in the area have only two or three secondary specialisations; for example, Khoula Hospital is the main rehabilitation and physiotherapy centre. The Royal Hospital and University Hospital deal with referrals from the other hospitals in the region. Also, these two hospitals employ the majority of Omani doctors and nurses. Three health centres were selected randomly from a list of 16 health centres in Muscat region. These health centres were Mabela health centre, A' Seeb health centre and Al- Kouldh Al- Jadedda health centre. They have around 25% of the total population of doctors and nurses in the health centres. These health centres were selected to represent general practices in Muscat, which have different working situations from the secondary and tertiary care hospitals mentioned above. There are two other types of health care providers, the Armed Forces Hospital and Oman Royal Police Hospital. These two hospitals refused to participate in the study, claiming security reasons.

Lists of doctors and nurses were obtained from each of the three hospitals and the three health centres. The lists give the names of doctors and nurses, Omani and expatriate, their departments and posts. These lists were the sampling frames used in this study. A sampling frame is a list of the survey population from which a sample can be drawn (Babbie, 1975; Hoinville and Jowell, 1978). If the sampling frame is to fulfil its purpose it must meet a number of criteria. It must be sufficiently accurate, free from omissions and duplications and up to date (Murthy and Roy, 1983). These criteria were met by the sampling frames used in this study.

3.3.1. Doctors' Sample

The lists from the hospitals and the health centres showed that there were about 457 doctors, Omani and expatriate, registered in these hospitals and in the health centres. The researcher decided to take the whole number for the study, excluding only those who were on long leave at the time of the study, and those Omani doctors who were on scholarship abroad and those who have no direct contact at all with patients. Therefore, the sample for this study was 371 doctors. The Royal Hospital contributed 180, University Hospital 139, Al- Shatti Hospital 22 and the health centres 30 doctors (see Table 3.1). The doctors here represent various specialisations in these organisations, including medicine, surgery, paediatrics, obstetrics and gynaecology, family medicine (general practice), accident and emergency, anaesthesia and radiology. However, laboratory medicine doctors such as microbiologists, pathologists and biochemists were excluded because the questionnaire was designed mainly for doctors who have direct contact with patients.

Table 3.1. Sample of Doctors according to Hospital and Nationality

Hospital	Nationality	Number	%	Total Sample
University Hospital	Omani	38	27.3	139
	Non- Omani	101	72.7	
Royal Hospital	Omani	58	32.2	180
	Non- Omani	122	67.8	
Health centres	Omani	10	33.3	30
	Non- Omani	20	66.7	
Al- Shatti Hospital	Omani	-	-	22
	Non- Omani	22	100	

3.3.2. Nurses' Sample

The sampling frame of nurses showed a large number of nurses in each of the Royal Hospital and University Hospital. The Royal Hospital has 1093 nurses and the University hospital has 491 nurses. On the other hand, Al-Shatti Hospital has only 32 nurses and the health centres 39 nurses. The nurses in the hospitals represent various areas in nursing; for instance, critical care areas, wards and outpatient clinics.

There is no clear-cut answer in the literature on the appropriate sample size. A large sample size, however, is not sufficient to guarantee the accuracy of the results. It is true that in some designs, an increase in sample size will increase the precision of the results, but it will not reduce bias caused by an inaccurate sampling frame. Therefore, the size of the sample is not in itself enough to guarantee that all will be well (Moser and Kalton, 1971).

There are formulas for selecting a sample size to achieve a certain level of confidence. Dooley (1984) discusses the difficulties in using these formulas. To calculate sample size, one has to have knowledge of the population difficult to obtain prior to the study, such as population variance of a certain characteristic. Further, these formulaic determinants of sample size have their basis in normality, again difficult to

know prior to the study. Still further, most social research measures many variables, with different requirements for sample size due to different population variances.

Dooley (1984) states that surveys often set sample size around constraints such as resources and time available to collect data. With these considerations in mind, the researcher in this study decided to take 25 percent of the population in each of the two large hospitals, as displayed in Table 3.2. The 32 nurses in Al- Shatti hospital and the 39 nurses in the health centres were all invited to contribute in the study.

Table 3.2. Number of Nurses and Sample Size in each Hospital

Hospital	Number of Nurses	Sample size
University Hospital	491	123
Royal Hospital	1093	273
Al- Shatti Hospital	32	32
Health centres	39	39
Total	1655	467

In order to ensure that the selected sample of nurses is as representative of the population as possible, this research used a stratified random sampling technique. A stratified random sample is one in which the population is divided into groups or “strata” and a random sample is then selected from each subgroup (Babbie, 1975; Black and Champion, 1976 and Fink, 1995). “The ultimate function of stratification is then to organise the population into homogenous subsets and to select the appropriate number of elements from each” (Babbie, 1975; p. 156). This method of sampling gives a greater degree of representation and decreases the probable sampling error that would occur with a simple random sample of the same size.

Prior to sample selection, the sampling frame of nurses was divided into two groups (strata): Omanis and expatriates (Table 3.3).

Table 3.3. Sampling Frame of Nurses according to Nationality (Strata)

Hospital	Nationality	Number	%	Sample from each category	Total Sample
University Hospital	Omani	17	3.5	all	123
	Non- Omani	474	96.5	106	
Royal Hospital	Omani	165	15.0	41	273
	Non- Omani	928	85.0	232	
Health centres	Omani	22	56.4	all	39
	Non- Omani	17	43.6	all	
Al- Shatti Hospital	Omani	5	15.6	all	32
	Non- Omani	27	84.4	all	

In this study the researcher was interested in understanding differences between the strata (Omanis and expatriates). Therefore, proportionate sampling (selection of subjects in proportion to the size of the stratum in the population) was used in Royal Hospital. However, proportionate sampling may result in an insufficient base for making comparisons. According to Polit and Hungler (1999, P. 287) "researchers often adopt a disproportionate sampling design whenever interstratum comparisons are sought between strata of greatly unequal membership size". For this reason, the researcher adopted a disproportionate sampling design in the University Hospital. As can be seen from Table 3.3, all the 17 Omani nurses in University Hospital were invited to participate in the study and hence no stratification was made. Also, no stratification was made in Al Shatti Hospital and the Health centres.

Within each nationality group, the nurse population from Royal Hospital and the expatriate nurses from University Hospital were further stratified into subgroups (substrata) according to their posts (grades) as senior nurses and staff nurses (Table 3.4). Senior nurses are those nurses with grades higher than staff nurses, including senior staff nurses, head staff nurses, midwives, supervisors, and nursing officers.

Table 3.4. Sampling Frame of Nurses according to Post (substrata)

Hospital	Nationality	Post	Number	%	Sample	Total
University Hospital	Non- Omani	Senior Nurses	171*	36	38	106
		Staff Nurses	303*	64	68	
Royal Hospital	Omani	Senior Nurse	9	5.5	9	41
		Staff Nurse	156*	94.5	32	
	Non- Omani	Senior Nurse	222*	24	56	232
		Staff Nurse	706*	76	176	

The expatriate nurses, both staff and seniors, in The University Hospital and in the Royal Hospital, have relatively large memberships in post (grades) strata. Therefore, proportionate sampling was used. On the other hand, disproportionate sampling was adopted in selecting Omani nurses in relation to their posts in the Royal Hospital (Table 3.4.). The nine senior Omani nurses in the Royal Hospital were all invited to participate in the study. A random sample was then drawn from each *stratum* using a table of random digits. "Stratification does not violate the principle of random selection because a probability sample is subsequently drawn within each stratum" (Nachmias and Nachmias, 1996, P. 189).

3.4. The Research Instruments

Job satisfaction is usually measured with interviews or questionnaires administered to the job incumbents in question. Although interviews are used in some cases, most research is done with questionnaires. This is because interviews are expensive and time consuming to conduct. In this study, the researcher decided to use a combination of two methods: survey questionnaires and focus group interviews to measure job satisfaction and job-induced stress of doctors and nurses.

3.4.1. Combination of Focus Groups and Survey Questionnaires

Increasingly, researchers are recognising the benefits of combining qualitative and quantitative procedures, resulting in greater methodological mixes that strengthen the research design. Indeed, combining different data collection techniques into a single project can be highly productive. Therefore, in this study regarding job satisfaction of health professionals (doctors and nurses) the researcher used a combination of questionnaires and focus groups. As Morgan (1988, p. 36) states, “survey researchers have often noted the potential value of combining their work with focus groups and it is now time and past time to move forward in this regard.” Survey questionnaires have high generalisability. They provide large scale, numbers-based, smart statistics research. A theory built and tested with survey data therefore has a better known range of applicability as to subjects than one based upon non-survey data. On the other hand, survey questionnaires are not without their limitations:

1. The data are, necessarily, superficial.
2. There is little or no check on the honesty or seriousness of responses.
3. Although sophisticated techniques of statistical analysis may often be applied to make causal inferences from survey data, the absence of experimental control over supposed independent variables and the fact that most surveys are cross-sectional rather than being conducted over time, complicates the task of distinguishing correlation between variables from a truly causal relationship.

According to Morgan (1988), survey research has been very successful at establishing itself as a self-sufficient source of social science data. “In the absence of adequate triangulation, however, such self-sufficiency may become inbreeding” (Morgan, 1988, p. 36). A combination of both questionnaires and focus groups will

give more strength and depth to the study. "A diversity of imperfection allows us to combine methods not only to gain their individual strengths but also to compensate for their particular faults and limitations" (Brewer and Hunter, 1989, p. 17).

Although surveys and focus groups originate from different research paradigms, the methods themselves are not inherently incompatible. Knodel et al. (1987) provides an excellent illustration of the ways that focus groups can be combined with existing survey methods.

Focus groups are part of a larger effort to "triangulate" different forms of data collection on the same topic (Denzin, 1978; Fielding and Fielding, 1986; cited in Morgan, 1988; p. 25). Morgan (1988) also added that the independent and self-contained nature of focus groups is a crucial feature of their ability to contribute to triangulation. Multiple methods measurement or triangulation requires multiple sets of data about the same topic from different viewpoints. Moreover, the techniques used, while being independent of one another, should be focused as tightly as possible upon the particular question being investigated. Successful triangulation requires careful analysis of each method in relation to other methods and also in relation to the demands of the research problem.

3.4.2. The Questionnaires

To operationalise the general concepts of this study, the researcher employed questionnaires as the main research method of data collection. Babbie (1975, p. 105) defined operationalisation as "the process through which the researcher devises procedures and operations that will result in observations relevant to general concepts he is interested in studying." The questionnaire is a very popular tool of operationalisation in which concepts are operationalised in the form of questions, which are then put to the people under study.

The development of the questionnaires was of paramount importance. Care was taken to obtain the necessary information without unduly influencing the respondents. Care was also taken to translate the research objective into specific questions. This is vital in questionnaire construction, to ensure that answers to such questions will provide the data for hypothesis testing. "The question must also motivate the respondent to provide the information being sought" (Nachmias and Nachmias, 1996, p. 250). During the questionnaire development, consideration was given to the content, structure, format, and sequence of the questions.

The questionnaires chosen for this study were based mainly upon existing models of job satisfaction and job-induced stress. The job satisfaction questionnaires for both doctors and nurses were based mainly on the scale: Measurement of Work Satisfaction among Health Professionals developed by Stamps et al. (1978). The measures developed by Stamps and her colleagues, as mentioned in Chapter Two, demonstrate a sophisticated approach to the measurement of the job satisfaction of health professionals (mainly nurses). They began by identifying from the literature six aspects (facets) of job satisfaction that were viewed as hypothetically separate: pay, autonomy, task requirements, organisational requirements, interaction, and status or prestige, and developed an instrument containing 10 items for each facet. Factor analysis indicated that the facets and items selected theoretically were related empirically. Seven factors explaining 59% of the total variance in responses were identified as a result of this analysis: pay, professional status, doctor-nurse relationship, administration, autonomy, task requirements (workload), and interaction. The internal reliability of the questionnaire, which was determined by the use of the Cronbach coefficient alpha, was reported to be 0.912.

A number of additional items were based on a study by Stevens et al. (1992) which investigated professional and bureaucratic predictors of doctors' satisfaction in

medical departments of university hospitals in the Netherlands. Satisfaction was measured on a Likert-type attitude scale encompassing three dimensions: work environment, workload and patient demand.

The other existing model on which the researcher drew in constructing the satisfaction survey was that of Lim and Yuen (1998). They investigated the relationships among three potential sources of stress, namely, demands from patients/relatives, demands from doctors, and perceived job image, and work-related outcomes including job satisfaction, among hospital nurses in Singapore. Each stress variable was reflected in a number of items, scored on a 5-point scale.

In addition to the items derived from the three instruments referred to above, some new ones were formulated by the researcher.

Determination of particular items for inclusion, modification of some items and addition of new items was based upon a review of the relevant literature, suitability for the Omani work environment and congruency with the purpose of this study; further details are given later in this section.

The Job-Induced Stress questionnaire was based on a questionnaire, which was constructed and evaluated for medical doctors in Great Britain (Cooper et al., 1989). This instrument consists of 38 items evaluated on a 5-point Likert scale ranging from no stress at all (rating 1) to a source of extreme stress (rating 5). It was developed to be used among general practitioners, and is very specific to the work situation of a doctor. Questions deal with the demands of the job and the expectations of the patients, to what extent work interferes with family and social life, the impact of frequent interruptions at work and at home, administration, dealing with death and dying, and medical responsibility for friends and relatives.

Within this overall framework, additional items were added from two other instruments. The first of these was a questionnaire used by Rout, U. and Rout, J.K. (1994) to investigate the job satisfaction of GPs in the UK following the introduction in 1990 of new contractual arrangements. Their job stress inventory was almost identical with that of Cooper et al. (Rout, U. had been one of the researchers working with Cooper in the previous study), but contained a number of additional items.

The second study on which the researcher drew, in supplementing the Cooper et al. (1989) framework, was a Canadian study of occupational stress among doctors, by Richardson and Burke (1991a). The questionnaire used in the study contained 13 specific sources of stress which respondents were asked to rate on a 5-point Likert scale ranging from “not important” to “very important”.

As with the satisfaction questionnaire, items from the source instruments were selected, modified and added to, according to the needs of the study.

3.4.2.1. Doctors’ Job Satisfaction Questionnaire

The doctors’ job satisfaction survey instrument was divided into three parts as follows:

I Demographic Data

This section consisted of 16 questions in a multiple-choice format. In addition to the usual information on age, gender, marital status, specialism, qualification and experience in post, it asked for certain information particularly relevant in the Omani context. Respondents were asked whether they were of Omani or non-Omani nationality and, if the latter, whether their families accompanied them in Oman. They were also asked their religion as, in an Islamic state such as Oman, the sharing or non-sharing of certain religious beliefs and sensitivities (for example in relation to contact

with the opposite sex) might facilitate or impede the doctor's relationships with patients and colleagues (see Appendix 7, Part I).

II Job Satisfaction

This section was based on the instrument of Stamps et al. (1978) referred to above, with a number of omissions and changes to suit the context and purpose of the present study. As mentioned earlier, this instrument was developed mainly for nurses, therefore, a general change was to use the term "doctors" instead of "nurses" and medical services instead of "nursing services" used by Stamps et al. (1978). In a few items, the wording was shortened to make the items more clear and focused, and to reduce the likelihood of respondents being deterred by lengthy and "difficult" looking items. For instance, in item #42 of the questionnaire the words "From what I hear from and about doctors at other hospitals . . ." were simplified to "Compared to other hospitals . . ." Similarly, in the professional status-related item #35, the words "there is no doubt whatever in my mind that . . ." were deleted. These words were considered redundant, as the degree of certainty towards the core concept, "What I do in my job is really important" would be captured by the rating given to the item on the Likert scale. Other changes were made to match an item more closely to the Omani environment; for example, the words "The present rate of increase in pay", item #9 were changed to "The annual increment in salary", and the word 'place' was substituted for hospital in item #33, because doctors may be tempted to seek a higher salary abroad.

The most important change made, however, was the addition of new items regarding patient-doctor relationship to the interaction component. It was the researcher's feeling, based on relevant literature, as well as experience as a physician in Oman, that certain aspects of the way patients perceive and behave towards health professionals may place pressure on doctors or lower their morale. Five items were added to the instrument to reflect these attitudes and behaviours. Two of these, # 14

and 26 were taken from Stevens et al. (1992) and two (# 3 and 40) were taken from Lim and Yuen (1998), changing the words 'nurses' and 'the nursing service' to 'doctors'. The fifth item in this component, "I sometimes find I am asked to do things I am not trained for" (item #32) was added by the researcher, based on experience of the Omani environment.

These modifications resulted in an instrument comprised of six scales or dimensions of job-satisfaction as follows: (see Appendix 1)

Pay: Contains five (5) items.

Autonomy: Contains five (5) items. The researcher added item #30.

Task requirements: Contains seven (7) items. Items #11, #19 and #48 were taken from Stevens et al. (1992)

Administration: Contains nine (9) items. Item #2 was added by the researcher.

Interaction: Contains fourteen (14) items. Items #13, #14, #20, #26, #28, and #47 were taken from Stevens et al. (1992). Items (# 3 and 40) were taken from Lim and Yuen (1998) and item #32 was added by the researcher.

Professional status: Contains eight (8) items.

Statements relating to the six components were arranged randomly throughout the questionnaire, to avoid bias induced by respondents becoming aware of the specific component being examined. Responses were indicated on a 7-point Likert-type scale with a neutral mid-point, as follows: 1 = strongly disagree, 2 = moderately disagree, 3 = slightly disagree, 4 = neither disagree nor agree, 5 = slightly agree, 6 = moderately agree, 7 = strongly agree (see Appendix 2).

III Job Stressors

This section followed closely the original model developed by Cooper et al. (1989). The main way in which the Job Stressors questionnaire was changed for the present study was the omission of several items which were not applicable in the hospital environment, for example, items relating to home visits and practice administration. Also, the word “surgery” was changed to clinic (see, for example, items 10 and 11 in the doctors’ questionnaire), as more accurately reflecting the hospital environment.

Two additional items were borrowed from the questionnaire by Rout and Rout (1994) referred to earlier. These were “examining patients of the opposite sex” and “coping with new technology (e.g. computers)”. The first of these was included to reflect an issue which is a particularly sensitive one in an Islamic country such as Oman, while the second was included because the larger Omani hospitals have in recent years invested heavily in computer systems, but have faced problems of resistance and under-utilisation, particularly as medical personnel may receive little training in how to use such systems.

Items #6 and #19, concerning, respectively, uncertainty about diagnosis or treatment, and the need to maintain one’s own knowledge, were from Richardson and Burke (1991).

Some items were reworded to reflect more accurately the Omani context; for example, in item #4 concerning demand for a second opinion, the words (local or abroad) were added, reflecting the fact that it is by no means uncommon for Omanis to travel abroad for consultation or treatment. Item #26 was reworded to specify blood samples (rather than ‘samples’ as a general term) and the words ‘several . . . in a short time’ were omitted because in the researcher’s experience, Omani doctors do not have

to take several samples in a short time; the difficulty is more one of having to take samples several times during the course of the day.

The result of these changes was a list of 27 potential stressors, which respondents were asked to rate on a 5-point Likert-type scale with the values 1 = extremely stressful, 2 = moderately stressful, 3 = minimally stressful, 4 = not at all stressful and 5 = not applicable. Since some of the situations do not pertain to all doctors, the respondents were given the option to answer "not applicable" (see Appendix 7, Part III).

At the end of the questionnaire, space was given for respondents to make additional comments about any issues within the hospital that worried or pleased them.

3.4.2.2. Nurses' Job Satisfaction Questionnaire

The survey instrument developed for nurses was similar to that for doctors, subject to modification to suit the particular responsibilities and working conditions of Omani nurses.

I Demographic data

This section contained 16 items in a multiple-choice format. Many of the questions were similar to those of the doctors' survey except that the pre-coded response categories in the items related to, for example, age and income, were changed to reflect the job profile of nurses, who tend to be younger than doctors and earn less. Three items were also specific to nurses' job, namely, #9, concerning practice areas, #10 concerning work on the ward, and #12, concerning the shift pattern usually worked (see Appendix 8, Part 1).

II Job Satisfaction

A general change to the nursing questionnaire was to use the term "nurses" instead of "nursing service personnel" used by Stamps et al. (1978) to reflect the fact

that the present study is concerned specifically with nurses, and not with the various kinds of support staff who might be encompassed by the broader term. Unlike the doctors' questionnaire, only a few items were added to the nurses' questionnaire, as explained below.

Certain items used in the doctors' questionnaire were not retained in the nurses' questionnaire, as they were thought not to be applicable to the situation of nursing in Oman. An example is the task requirements item (#19 on the doctors' survey): "My work load hinders me from keeping abreast of the professional literature". Another is the autonomy-related item (#30 on the doctors' survey): "I have inputs into decisions that affect patients' management."

As in the doctors' questionnaire additional items, regarding patient-nurse relationship, were added to the interaction component, reflected in three items (# 8, 19 and 35) derived from Lim and Yuen (1998).

A dimension of job-satisfaction covered by the nurses' questionnaire, but not that of the doctors, was Doctor-Nurse Relationship, defined as the amount and type of professional interaction between doctors and nurses. This dimension was included here because doctors, with their superior power and status, can strongly influence the atmosphere in which nurses work, and the pressures they face. Three of the four items in this section were taken from the original questionnaire by Stamps et al. (1978). The fourth was adapted from Lim and Yuen (1998).

One item in the nurses' questionnaire was added by the researcher, based on personal experience. This was #40, concerning opportunity to attend courses (see Appendix 3 & Appendix 4).

III Job Stressors

A number of modifications were made to adapt the job stressors questionnaire of doctors used in this study to the particular tasks and responsibilities of nurses. For example, references to diagnosis were removed (compare item #6 in the doctors' questionnaire with item #6 in the nurses' questionnaire) and the word "examining" in item #12 of the doctors' questionnaire was changed to "nursing" in the equivalent item (#10) of the nurses' questionnaire. Items dealing with being "on call" and responsibility for conducting a clinic, which are applicable only to doctors, were omitted. Item #9, "Dealing with emergency situations", item # 23, "Language barrier when dealing with patients" and item # 24, "Conflicts with doctors" were added by the researcher on the basis of experience in Omani hospitals. The result was a list of 24 potential stressors, rated on the same 5-point Likert-type scale as used in the doctors' survey (see Appendix 8, Part III).

3.4.2.3. Validity

"Validity refers to the degree to which an instrument measures what it is supposed to be measuring" (Polit and Hunger 1999, p. 418). The scales used in this study are intended to measure different concepts of job satisfaction and job stress of doctors and nurses. The items in these scales measure the concepts from different dimensions and therefore these measurements are indirect. In this circumstance it is not certain that they are measuring the variable for which they were designed. Hence, supporting evidence is needed to prove that a scale is measuring what it appears to measure. This supporting evidence is obtained by testing the validity of the scale, which is a measure of the scale's adequacy and accuracy.

The methodological literature abounds with terms relating to different facets of the validity question. According to Litwin (1995) there are several types of validity,

which are typically measured when assessing the performance of a survey instrument: face, content, criterion and construct. Criterion and construct validity are difficult to measure because the former needs to be judged against some other method, known as a “gold standard”, for assessing the same concept, and the latter is determined only after years of experience with the instrument. Polit and Hunger (1999, p. 419) state that "one requirement of the criterion-related approach to validation is the availability of a reasonably reliable and valid criterion with which the measures on the target instrument can be compared. This is, unfortunately seldom easy". As there is no known “gold standard” for the scales used in this study to be used to determine the criterion validity, the researcher had to settle for testing the face and content validity of the scales.

Face validity

Face validity refers to whether the instrument *looks* as though it is measuring the appropriate construct. At the very minimum, a researcher who develops a new measure should establish that it has face validity – that is, that the measure apparently reflects the content of the concept in question (Bryman and Cramer, 1997). The researcher took the following steps to make sure that the questionnaires have high face validity:

1. The questionnaires were reviewed thoroughly by the researcher and his supervisor to check on the clarity of the questions and their appropriateness to doctors and nurses in Oman and to ensure that the meaning reflects the content of the scales. Therefore, many changes and modifications were made to the original versions of the questionnaires.
2. The questionnaires were also shown to senior staff in medicine and nursing in the department of Public Health and Primary Care, University of Hull. Their comments were considered and some of the questions and statements were modified accordingly.

Content Validity

Content validity is concerned with the sampling adequacy of items for the construct that is being measured. The content validity of an instrument is necessarily based on judgement. There are no completely objective methods of ensuring the adequate content coverage of an instrument. However, it is becoming increasingly common to use a panel of experts in the content area to evaluate and document the content validity of instruments. The content validity of the questionnaires of job satisfaction and job stress of this study was reviewed by a panel of experts in both medicine and nursing at Sultan Qaboos University Hospital and College of Medicine and by experienced doctors and nurses at Sohar Hospital, as can be seen in the next section. Two key issues were taken into account: whether individual items are relevant and appropriate in terms of the constructs and whether the items adequately measure all dimensions of the construct.

3.4.2.4. Pilot Study

An initial reading of existing literature made clear the importance of a pilot study, based on the argument of Hoinville et al. (1978, p. 90): "The creation of a good questionnaire does not have to rely solely on the researcher's perspective. At some stage in the design process the questionnaire should be subjected to a field test."

The importance of pilot testing has been emphasised by many writers such as Borg and Gall (1983), Hayman (1968), Cohen and Manion (1985), Lin (1976), Johnson (1977), and Avy et al. (1972). Although all the foregoing writers proclaim the importance of the pilot test, it might be valuable to indicate the reason for this importance.

Borg and Gall (1983, p. 30-31) reported, "Every questionnaire must be tested and refined under real world conditions. Even after years of experience, no expert can

write a perfect questionnaire". The pilot test is very important in research investigation because it helps the researcher to see how the questionnaires will be conducted at the time of the main study and how long respondents take to complete them, and to locate any ambiguities. On this basis, researchers can remove any items, which do not yield usable data, add items to fill any data gaps and reword unclear questions, in preparation for the main study.

The original questionnaires on which this study drew had been used in Western cultural contexts, mainly in the United States. Therefore, there are additional reasons for the pilot study:

1. Oman is an Arab and Islamic country with different cultural and social contexts.
2. The organisational settings in the health care sectors differ from those in the West.
3. The health professionals (doctors and nurses) are a mixture of Omanis and expatriates who represent different nationalities and cultures.
4. English is the second language for the vast majority of the participants.

The researcher distributed the doctors' questionnaire before conducting the pilot study to a group of 12 experts: professors, consultants, senior lecturers and lecturers representing different medical specialisations in Sultan Qaboos University Hospital and College of Medicine. The nurses' questionnaire was given to a group of 12 very senior nurses in the nursing administration office at Sultan Qaboos University Hospital to assess the content of the questions, their appropriateness, relevance and clarity. Their comments were reviewed alongside the feedback from the pilot study.

The pilot of the instrument was conducted in Sohar Hospital (Ministry of Health). Sohar Hospital is a regional hospital in north Al-Batina, opened officially on 15th

November 1997. This hospital provides secondary and tertiary care to inhabitants of the health region in which it is located. It is considered as a referral hospital for clinical cases from other hospitals and health centres of the region. Sohar Hospital has 176 doctors and 553 nurses in various specialisations: medicine, surgery, orthopaedics, paediatrics, obstetrics and gynaecology, ENT (ear, nose and throat), ophthalmology, accident and emergency, anaesthesiology, and radiology.

The researcher preferred not to pilot the study in one of the main study hospitals,

- a) to maintain adequate sample size, especially of Omani doctors, in the main study hospitals; if some doctors were excluded from the main study by having participated in the pilot, there might be insufficient left on which to draw;
- b) to avoid spread of information about the researcher's questionnaire amongst doctors and nurses in the hospitals which would be used in the main study, and so avoid a possible source of response bias;
- c) to preserve good relations with the administration of the hospitals selected for the main study, because asking them to participate in the pilot study also might unduly disrupt their work and make them reluctant to co-operate in the main study.

Bearing this in mind, Sohar was chosen because it has all the specialisms and units and at almost the same level, as the hospitals in the Muscat region which were selected for the main study.

The pilot study sample was 30 doctors and 30 nurses. They were randomly drawn from various specialisations and working areas of the hospital.

The researcher distributed the questionnaire with a covering letter (see Appendices 7 and 8) to the doctors through medical officers in charge and to the nurses via the head of nursing services in the hospital. The researcher arranged meetings with

all the participants in-groups over two days. Two groups of nurses and five groups of doctors were seen at different times. The researcher discussed the questionnaires with them question by question and statement by statement, to ensure that the questions were understandable, appropriate, and relevant to the measured scales.

General comments were made by all the participants that the questionnaire should be distributed and collected by the researcher in person, and not through the administration, as they felt that this might affect confidentiality. Most of them feared that the administration might see their responses to the questions and then use that against them. The average time taken by doctors and nurses to complete the questionnaires was 30-35 minutes.

The results of the pilot study revealed little difficulty in interpreting the instrument and complying with the instructions for its completion. Therefore, translation into Arabic was considered unnecessary.

All respondents agreed that the job stress questions for both doctors and nurses were clear and understandable and most of them represent real situations in the life of health professionals.

Regarding the job satisfaction questionnaires, the groups of doctors and nurses suggested that individual items required some clarification. They thought some items were inapplicable to their situations, some were irrelevant to the measured scale and some were ambiguous.

These suggestions by the experienced and highly qualified doctors and nurses in Sohar Hospital were supported by similar suggestions from the panel of experts from Sultan Qaboos University Hospital and College of Medicine.

These comments resulted in the following changes.

Pay (in doctors' and nurses' questionnaires)

The item "Excluding myself, it is my impression that . . ." was dropped from the subscale because it was long and unclear.

The item "Compared to other hospitals, we at this hospital are being fairly paid" was clarified by adding the name of the hospital in brackets after "this hospital", so this item was specific for each hospital. The word 'fairly' in this item was changed to 'poorly' to balance positive and negative items in the subscale.

Professional status (in doctors' and nurses' questionnaires)

Three items were removed from the subscales:

- "What I do in my job is really important", and
- "What I do in my job doesn't add up to anything really significant" were removed because they were considered difficult to understand.
- "When I'm at work in this hospital, the time generally goes by quickly" was dropped from the scale because it was not related to the professional status scale.

Another item was removed from the doctors' subscale. That was item #24, "my particular job really doesn't require much skill or know-how" because it was considered unclear.

A new item was added: "I sometimes feel my job is meaningless" borrowed from the Job Satisfaction survey (JSS) – Spector (1997).

Doctor-nurse relationship (nurses' questionnaire)

The item "There is a lot of teamwork between nurses and doctors on my unit" was reworded to "Teamwork between nurses and doctors on my unit is encouraging".

Administration

In the doctors' questionnaire, four items were dropped from the administration subscale: "There is ample opportunity for doctors to participate in the administration decision-making process", "It's my general impression that most doctors at this hospital really like the way work is organised and done", "I have all the voice that I want in planning policies and procedures for this hospital and my unit", "I have the feeling that this hospital in general, and my service too, is not organised with the need of patients given priority". These items were considered too long, unclear and in the case of the first and third, inapplicable in the Omani hospital situation. A new item was suggested by the expert panel and the pilot groups: "There are adequate teaching and training activities for doctors at this hospital". The item "Administrative decisions at this hospital interfere too much with patient care" was reworded to "Administrative decisions at this hospital sometimes interfere with patient care more than necessary".

The same changes were made in the administration subscale for nurses, except one more unsuitable item was removed: "I receive adequate training/guidance for what I do in my job".

Task requirements

One item was added to the doctors' questionnaire: "I have enough time off-duty". The item "I have plenty of time and opportunity to discuss patients with other colleagues" was reworded to "I have the time and opportunity to discuss patients with other colleagues"

One item was deleted from the nurses' questionnaire: "In my unit, I'm sure patients do not suffer because of the time spent on paperwork" because it was unclear to the nurses. The item "I don't spend as much time as I would like in taking care of patients directly" was reworded positively to "I have sufficient time for direct patient

care". Another item was added from the doctors' questionnaire: "A lower work load would improve my performance". The item "I have plenty of time and opportunity to discuss patient care problems with other nurses" was reworded to "I have the time and opportunity to discuss patient care problems with other nurses"

Interaction

Three items were removed from the doctors' subscale: item #13 "I receive adequate teaching and guidance from my colleagues" because it was not applicable for all doctors; it was more related to young doctors in training; item #32 "I sometimes find I am asked to do things I am not trained for" because it was found not related to this component and item #3 "the expectations of patients and their relatives on doctors are unrealistically high" was replaced by a new item suggested by the panel and the pilot groups, "I have satisfactory relationships with my patients and their families. No change was made in the nurses' subscale, except the addition of this new item.

Autonomy

Two items #41 and 12 (see Appendix 1) were dropped from the autonomy subscale of doctors. One item was added: "I have input into planning policies and procedures for my unit".

With regard to the nurses' questionnaire, item #10 was replaced by the item "I feel that I am supervised more closely than is necessary" from the Revised Version of the Stamps' instrument (Stamps, 1997). Item #23 was modified to "I can make judgements and decisions regarding patient care". Item #7 was replaced by the item "I feel I have sufficient input into the care for each of my patients" from the same source above. Item #47 was removed because it was considered inappropriate.

The panel also suggested a 5-point Likert scale instead of the original 7-point version, with the response alternatives ranging from strongly disagree to strongly agree, with a neutral midpoint.

According to Polit and Hungler (1999) there are differences of opinion concerning the appropriate number of response alternatives to use. Likert used five categories of agreement/disagreement responses. Some investigators prefer a 7-point scale, adding the alternatives “slightly agree” and “slightly disagree”. There is also a diversity of opinion about the advisability of including an explicit category labelled “uncertain”. Some researchers argue that the inclusion of this option makes the task less objectionable to people who cannot make up their minds or have no strong feelings about an issue. Others, however, feel that the use of this undecided category encourages fence sitting or the tendency to not take sides. The 5-point Likert scale was thought to be more appropriate to this study because it is easy to follow and would be more convenient to the rushed doctors and nurses. Moreover, this type of scale was more familiar to participants.

After the refinements and alterations described above, the final forms of the items were as shown in Appendices 5, and 6. Each scale contained a mixture of positively and negatively worded items; scoring for the latter was reversed so that for each component, a higher score denotes a higher level of satisfaction.

3.4.2.5. Reliability

Reliability is of central concern to social scientists because measuring instruments (scales) are rarely completely valid (Nachmias and Nachmias, 1996). This is because measurements in the social science are indirect and, therefore, more errors are encountered when social variables are measured as compared to physical variables (Nachmias and Nachmias, 1996). For example, in the present study, doctors'

professional status was measured with a subscale containing five statements. These indicators are indirect as they measure doctors' attitude towards a concept. In addition, the validity analysis carried out for this subscale was a subjective one (face and content validity); therefore, the subscale may not be completely valid and the researcher must evaluate the subscale with respect to other characteristics. The degree of reliability is a method commonly used to evaluate the consistency of scales or instruments. Litwin (1995; p. 6) defines reliability as "a statistical measure of how reproducible the survey instrument's data are". In other words, the researcher should expect the same results if he applied the same scale on different occasions or with a different set from an equivalent population.

Reliability analysis is carried out to assure the researcher that the scales are reliable and have as little measurement error as possible. Nachmias and Nachmias (1996) argue that a measuring instrument contains variable errors, that is, errors that appear inconsistently from observation to observation during any one measurement attempt or that vary each time a given unit is measured by the same instrument. Therefore, each measurement contains a true component and an error component. Therefore, reliability can be defined as "the ratio of the true score variance to the total variance in the score as measured" (Helmstadter, 1970; cited in Nachmias and Nachmias, 1996; p. 171). From the above definition, it can be seen that if there is no variable error, the ratio of the true score variance to the total variance becomes one, and the scale is perfectly reliable. However, when the measurement contains only error, the above ratio is zero, and the scale is completely unreliable. The reliability measure varies on a scale from 0 to 1, where a value close to zero is an indicator of an unreliable scale and a value close to one is an indicator of a reliable measure.

When considering measurement reliability, a distinction is made between external and internal reliability. External reliability refers to the degree of consistency of a

measure over time, or the possibility of an independent researcher replicating the same study in a similar setting. Internal reliability measures the consistency of the scale. It is applied to a scale containing several items that are thought to measure different aspects of the same concept (Litwin, 1995). High internal reliability indicates how different items measure a single concept. This is important for the present study as there are several scales and subscales to measure different concepts, each containing four or more statements. The aim here is to make sure that a group of items in a particular scale, which purports to measure one variable, should focus on that variable only.

Several procedures are commonly used to determine measurement reliability.

Among the most common methods are:

- (a) Test- retest, where the scale is administered to the same group on two separate occasions and then the correlation between the two sets of observation is computed. A high correlation between the two tests is an indicator of high reliability. Test-retest has two main limitations (Nachmias and Nachmias, 1996; p. 172). First, measurement on one occasion may influence measurements on subsequent occasions. Second, changes may have occurred in the measured variable during the period between the two tests, which may cause low reliability.
- (b) Parallel forms technique, where the researcher develops two parallel versions of the same scale and administers both forms to the same group. Correlation between the two versions is then computed to obtain an estimate of reliability.
- (c) Internal consistency is another commonly used technique to assess instruments and scale reliability. Internal consistency determines whether each scale is measuring a single concept and hence the items contained in the scale are internally consistent.

Internal reliability can be measured statistically by two procedures. First, Cronbach's coefficient, alpha, is the most frequently used measure of reliability. This coefficient is named after the 20th-century psychometrician who first reported it in 1951. It measures the internal consistency and homogeneity of a group of items combined to form a single scale (Litwin, 1995). Alpha varies between zero and one and the nearer the result is to one - preferably at or over 0.8 - the more reliable is the scale (Bryman and Cramer, 1997; p. 63). Secondly, a split-half reliability test is used. Here, the items in a scale are divided into two groups (on an odd-even basis) and the correlation between the respondent's scores for the two halves is computed. The rule of thumb is that the resulting coefficient should be 0.8 or above. Some authors argue that a coefficient above 0.6 is acceptable for exploratory research, although values over 0.7 are preferred (Bagozzi 1994). Borg (1981; p. 218 - 219) states that:

“Correlations below 0.35 show only very slight relationship between variables and have limited meaning in exploratory relationship, whereas a correlation within the range 0.35 and 0.65 shows a strong enough relationship between variables and is statistically significant beyond the one percent level”.

Litwin (1995) reported that correlation within the range between 0.25 and 0.55 have a strong relationship between variables. The above points were taken into consideration, and any item with a correlation of less than 0.35 was omitted from the scales.

Reliability of the Questionnaires

After the pilot study was completed and the suggested changes were made, the doctors' questionnaires were distributed to a group of thirty new doctors and the nurses' questionnaires were distributed to a group of thirty new nurses at Sohar Hospital. The aim of this distribution was to check on the reliability of the instruments. The reliability was tested using Cronbach's Alpha Coefficient.

The doctors' job satisfaction scale was comprised of six subscales measuring different aspects of job satisfaction. These subscales were pay, professional status, administration, task requirements, autonomy and interaction. Each was evaluated on a five point Likert scale from strongly disagree to strongly agree, with a neutral midpoint. Another scale was used to measure the job-induced stress of doctors. This scale was composed of twenty-seven items, each measured on a four-point continuum, with a fifth point if the item was not applicable to the respondent.

In the same way, the nurses' job satisfaction scale was composed of seven subscales. These subscales were pay, professional status, doctor-nurse relationship, administration, task requirements, autonomy and interaction. Each was evaluated on a five point Likert scale. The nurses' job-induced stress scale contained twenty-four items.

As mentioned earlier, the job satisfaction questionnaires for both doctors and nurses were based mainly on the instrument developed by Stamps et al. (1978) to measure work satisfaction among health professionals and on the revised version of this instrument (Stamps, 1997). The internal reliability of the subscales ranged from 0.69 to 0.85 with the highest for pay and the lowest for autonomy and the overall reliability was 0.91 (Stamps, 1978). Since then, the scale has gone through several modifications and revisions. In 1985, the values of Cronbach's Alpha were slightly lower on most of the components, but still well within the acceptable range (from 0.52 to 0.81) and total alpha was 0.82 (Stamps, 1997). In 1986, the values of Cronbach's Alpha of the subscales were: pay = 0.85, autonomy = 0.69, task requirements = 0.69, administration = 0.83, professional status = 0.76, interaction = 0.82 and overall reliability was 0.91 (Stamps, 1997). According to Stamps (1997), the autonomy component had one of the weakest values of Kendall's tau (an average of 0.68, with range of 0.54 to 0.80) and the

weakest factor loading on the individual items (with ranges around 0.3). Additionally, it had only a few items.

For this study, the researcher extensively modified the scale of job satisfaction and added items to it according to the needs of the study. Therefore, further reliability testing was needed.

Reliability of the Doctors' Job Satisfaction Scale

Table 3.5 shows the internal reliability of the subscales. As can be seen from the table that the item total correlations for item # 11 and item # 21 in the interaction subscale were low and therefore the removal of these two items resulted in improving the reliability from 0.69 to 0.81 indicating strong reliable subscale. Cronbach's alpha for the other subscales was within an acceptable range. The final overall Cronbach's alpha for the doctors' job satisfaction scale was 0.89. This value was very acceptable and indicated a statistically reliable scale. Therefore, the resulting doctors' job satisfaction scale was composed of 37 items (see Appendix 7). This scale was used in the main study.

Table 3.5: Results of the Reliability of the Subscales for Doctors (N = 30)

Subscale	No. of the item	Item total correlation	Alpha if item deleted	Reliability of the subscale
Pay	1	0.60	0.69	0.76
	14	0.84	0.54	
	23	0.60	0.69	
	32	0.40	0.74	
Professional Status	6	0.57	0.55	0.67
	19	0.36	0.65	
	26	0.36	0.65	
	29	0.37	0.64	
	34	0.58	0.55	
Administration	2	0.55	0.63	0.71
	10	0.35	0.71	
	13	0.60	0.63	
	22	0.48	0.65	
	30	0.46	0.66	
	36	0.36	0.70	
Task Requirements	7	0.50	0.81	0.82
	9	0.61	0.79	
	15	0.58	0.80	
	18	0.68	0.78	
	27	0.35	0.83	
	35	0.63	0.79	
	38	0.36	0.83	
	39	0.72	0.77	
Autonomy	4	0.70	0.68	0.80
	17	0.43	0.80	
	20	0.60	0.74	
	24	0.70	0.70	
Interaction	3	0.35	0.68	0.69
	5	0.45	0.65	
	8	0.59	0.63	
	11	-0.06	0.74	
	12	0.58	0.63	
	16	0.55	0.66	
	21	-0.27	0.76	
	25	0.36	0.68	
	28	0.52	0.65	
	31	0.35	0.69	
	33	0.51	0.65	
	37	0.59	0.63	

Reliability of the Nurses' Job Satisfaction Scale

Table 3.6 shows the alpha coefficients for the subscales. The alpha coefficient for the four items in the autonomy subscale was 0.30 and the inter-item total correlations were between 0.11 to 0.24, which indicate that the subscale was not reliable and therefore it was removed. Also, as can be seen from the table, the item total correlation for item # 26 in the interaction subscale was low. Removal of this item improved the reliability of this subscale from 0.65 to 0.68. Cronbach's alpha for the other subscales was within an acceptable range. The final overall Cronbach's alpha for the nurses' job satisfaction scale was 0.86. This value was very acceptable and indicated a statistically reliable scale. Therefore, the resulting nurses' job satisfaction scale was composed of 36 items (see Appendix 8). This scale was used in the main study.

Table 3.6: Results of the Reliability of the Subscales for Nurses (N = 30)

Subscale	No. of the item	Item total correlation	Alpha if item deleted	Reliability of the scale
Pay	1	0.67	0.51	0.70
	12	0.37	0.70	
	22	0.62	0.54	
	37	0.36	0.70	
Professional Status	5	0.54	0.60	0.69
	15	0.36	0.68	
	27	0.47	0.63	
	32	0.44	0.64	
	38	0.44	0.64	
Doctor-Nurse Relationship	10	0.40	0.62	0.70
	21	0.35	0.70	
	24	0.64	0.48	
	36	0.50	0.56	
Administration	7	0.46	0.63	0.68
	18	0.36	0.65	
	25	0.51	0.61	
	28	0.41	0.64	
	30	0.35	0.66	
	34	0.40	0.64	
	35	0.42	0.64	
Task Requirements	4	0.35	0.62	0.62
	11	0.52	0.50	
	13	0.36	0.58	
	19	0.46	0.52	
	31	0.37	0.61	
	39	0.42	0.54	
Autonomy	8	0.16	0.23	0.30
	14	0.11	0.31	
	20	0.11	0.29	
	40	0.24	0.14	
Interaction	2	0.35	0.63	0.65
	3	0.46	0.61	
	6	0.39	0.61	
	9	0.35	0.62	
	16	0.37	0.62	
	17	0.53	0.59	
	23	0.35	0.65	
	26	0.07	0.67	
	29	0.36	0.62	
	33	0.48	0.59	
	41	0.36	0.63	

Reliability of Job-Induced Stress Scales

The alpha coefficients for the doctors and nurses' Job- Induced Stress Scales were 0.90 and 0.91 respectively. These results revealed that both scales were strongly reliable. The items together were unidimensional, and in a strongly reliable way assessed this unidimensional concept. Therefore, analysis continued with the full complement of variables included in the calculation of the composite scale for job-induced stress. As the lowest value on the four-point scale represents "very stressful", this scale was reverse coded. In this way, a higher score corresponds to a higher level of stress.

3.4.2.6. Factor Analysis

Factor analysis was used to verify the validity of the doctors' job satisfaction scale and nurses' job satisfaction scale. The method was principal components factor analysis with a varimax rotation as the default in the software. Data were analysed using SPSS for windows computing programs based on 264 usable responses from doctors and 371 usable responses from nurses. The factor analysis provided a listing of six factors with an eigenvalue above 1.0. An eigenvalue of 1.0 or greater indicated that the factor possessed at least as much total variance as was contained in a single item (Waltz & Bausel, 1981). Based on the factor extraction data, eigenvalue, scree plot and variance explained, six factors for the doctors' data set and six factors for the nurses' data set were identified. Selection of more than six factors led to non-rational distribution of items among the factors. The results of factor analysis of both the doctors' data set and the nurses' data set are presented next in two separate sections.

Factor Analysis of Doctors' Scale

The scree test and percentage of variance indicated that the six factors for doctors' data set were substantially above chance levels and accounted for 47.51% of the total explained variance. Table 3.7 below represents the total explained variance.

Table 3.7: Total Variance Explained- Doctors' Scale

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.99	18.90	18.90	4.06	10.98	10.98
2	3.28	8.87	27.77	3.76	10.15	21.13
3	2.26	6.10	33.87	2.69	7.27	28.40
4	1.92	5.18	39.04	2.65	7.16	35.55
5	1.70	4.61	43.66	2.58	6.98	42.54
6	1.42	3.85	47.51	1.84	4.97	47.51
7	1.38	3.74	51.24			

Table 3.8 represents the factor analysis of the doctors' job satisfaction measure. It can be seen from this table that:

Factor 1: contains eight items from the interaction component relating to doctor-doctor relationships and team work and they are moderately loaded on it. Additionally, one item from the administration component loaded moderately on this factor. This latter item seems to be related to teamwork and the work environment. Another item loaded on this factor came from the task requirement component and is also related to teamwork.

Factor 2: All except one of the items of task requirements (workload) are loaded on this factor. Five items are loaded heavily and two items loaded moderately.

Factor 3: All the items of the pay component are loaded heavily on this factor.

Factor 4: Three items from the administration component relating to professional development are loaded on this factor. Additionally, one item from the autonomy component is loaded moderately on this factor. This latter item seems to be related to the rest of the items on this factor.

Factor 5: All the items from the professional status component are loaded moderately on this factor. Additionally, two items from the interaction component are moderately loaded on this factor. One of these two items is related to the relationships with patients and relatives, which were considered by doctors in this study as rewards to them, and the other one is related to respect and appreciation from patients. Both items are related to professional status. Another item, which is moderately loaded on this factor, came from the autonomy component and also seems to fit logically with the other items.

Factor 6: There are two items from the administration component loaded heavily on this factor. Another item that loaded moderately on this factor came from the autonomy component. This latter item seems also to be related to administration.

Table 3.8: Factor Analysis of Doctors' Job Satisfaction Measure (Sorted Factor Loadings)

Component	Item No.	Items	Factor loadings					
			1	2	3	4	5	6
Pay	1	My present salary is satisfactory.			.84			
	14	Considering what is expected of doctors at this hospital, the pay I get is reasonable.			.79			
	23	The annual increment in salary for doctors is not satisfactory.			.68			
	32	Compared to other hospitals, we at this hospital are poorly paid.			.71			
Professional Status	6	I am proud to talk to other people about what I do in my job.					.73	
	19	I sometimes feel my job is meaningless.					.55	
	26	Even if I could make more money in another place, I am more satisfied here because of the working conditions.					.46	
	29	I am satisfied with the types of activities that I do in my job.					.46	
	34	If I had the decision to make all over again, I would still go into medicine.					.55	
Administration	2	I have a great opportunity for continuing professional development.				.70		
	10	There are adequate teaching and training activities for doctors at this hospital.				.60		
	13	Administrative decisions at this hospital sometimes interfere with patient care more than necessary						.73
	22	There are enough opportunities for advancement in my career.				.64		
	30	There is a large gap between the administration of this hospital and the daily problems of medical service.						.67
	36	I'm generally satisfied with the way medical work is organised and gets done at this hospital.	.43			.43		
Interaction	3	I have satisfactory relationships with my patients and their families.					.40	
	5	Doctors in my department don't often act like "one big happy family".	.73					
	8	The people here get along together very well.	.56					
	12	Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.	.66					
	16	My colleagues appreciate my work.	.43					
	25	I have no opportunity to discuss personal problems with individuals in my department.	.47					
	28	New employees are not quickly made to "feel at home" on my unit.	.67					
	31	Patients/relatives are generally appreciative of what doctors do for them.					.47	
	33	There is a good deal of teamwork and co-operation between various specialties and departments in this hospital.	.56					
37	There is no team spirit here.	.70						
Autonomy	4	I have the freedom in my work to make important decisions as I see fit.					.46	
	17	I am sometimes required to do things in my job that are against my better professional judgement.						.41
	20	I have input into planning policies and procedures for my unit.				.42		
	24	I have inputs into decisions that affect patients' management.						
Task requirement	7	I could deliver much better care if I had more time with each patient.		.74				
	9	A lower workload would improve my performance.		.83				
	15	My workload hinders me from keeping abreast of the professional literature.		.72				
	18	In my unit, my patients don't suffer because of the time spent on paperwork.		.40				
	27	I have the time and the opportunity to discuss patients with other colleagues.	.42					
	35	I think I could do a better job if I didn't have so much to do all the time.		.77				
	21	I have enough time off-duty.		.48				
11	Due to lack of time, I cannot assist every patient as I wish to do.		.75					

These outcomes suggest that the questionnaire's four strongest factors were pay, task requirements, professional status and interaction, and two components appeared to need revising, namely, administration and autonomy.

Based on this factor analysis, a revised doctors' job satisfaction scale was produced, which seems to be more appropriate to measure doctors' satisfaction in Omani medical settings: hospitals and health centres. This scale is composed of six new factors, which were used in the analysis of the data in this study. These factors are as follows:

1. Teamwork (previously called interaction)
2. Workload (previously called task requirements).
3. Pay
4. Professional development
5. Professional status
6. Administration

Confirmation of the integrity of this new scale was obtained in the main study by using Cronbach's alpha. Intra-subscale reliability tests for each of the factors (components) appear in Table 3.9. In general, factors with more items have higher scores, but all fall within an acceptable range of reliability.

The overall reliability of the scale was 0.87. The high reliability of all 36 items chosen except one suggest that each is measuring the general concept of the questionnaire, *i.e.*, job satisfaction, and the high intra-scale reliability suggests that each item within a subscale is measuring that particular aspect of job satisfaction. One item (# 20) was removed from factor 4 due to the low item total correlation (0.10), indicating

this item's minimal contribution to the reliability of the subscale. Therefore the final scale was composed of 35 items and six factors or components (Appendix 9).

Table 3.9: Results of the Intra- Subscale Reliability Test

Revised factor	Reliability
Teamwork	0.82
Workload	0.83
Pay	0.78
Professional development	0.64
Professional satisfaction	0.68
Administration	0.60

Factor Analysis of Nurses' Scale

The scree test and percentage of variance indicated that the six factors for the nurses' data set were substantially above chance levels and accounted for 43.06% of the total explained variance. Table 3.10 below represents the total explained variance.

Table 3.10: Total Variance Explained- Nurses' Scale

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.85	16.25	16.25	3.56	9.60	9.60
2	2.67	7.42	23.67	2.97	8.26	17.86
3	2.04	5.67	29.34	2.45	6.81	24.67
4	1.73	4.80	34.14	2.31	6.41	31.08
5	1.68	4.66	38.80	2.24	6.22	37.30
6	1.53	4.26	43.06	2.07	5.76	43.06
7	1.30	3.62	46.68			

Table 3.11 represents the factor analysis of nurses' job satisfaction measure as sorted by factor loadings.

Factor 1: Six items from the interaction component relating to nurse-nurse relationship and teamwork are moderately loaded on this factor. Additionally four items from the administration component are also moderately loaded on it. Another item

from the task requirement component is moderately loaded on this factor. The additional items seem to be related to nurse-nurse relationship.

Factor 2: All items of the component, doctor-nurse relationship, are loaded heavily (3 items) or moderately (one item) on this factor.

Factor 3: All items of the pay component are loaded on this factor. Three items are loaded heavily and one item is moderately loaded.

Factor 4: Four items from the interaction component relating to relationship with patients are loaded moderately on this factor.

Factor 5: All except one of the items of the task requirements component are loaded moderately on this factor.

Factor 6: All the items of the professional status component are loaded moderately on this factor. Additionally, three items from the administration component relating to professional development are loaded moderately on this factor, suggesting that nurses considered professional development as part of their professional status.

The results of the factor analysis on the nurses' job satisfaction measure showed that pay, doctor-nurse relationship, and task requirements were the strongest factors. The interaction factor was composed of items related to the nurse-nurse relationship and teamwork, which appeared on Factor 1 and the other items, which related to relationships with patients, appeared on Factor 4 as a new factor. Therefore, this component is divided into two subscales by factor analysis.

The administration component is also divided into two parts. Those items related to professional development appeared on Factor 6 with items of the professional status component, making a new factor. The other items, related to administration, appeared on Factor 1, as mentioned above.

Table 3.11: Factor Analysis of Nurses' Job Satisfaction Measure (Sorted Factor Loadings)

Component	Item No.	Items	Factor Loadings					
			1	2	3	4	5	6
Pay	1	My present salary is satisfactory.			.81			
	12	The annual increment in salary for nurses is not satisfactory.			.61			
	22	Considering what is expected of nurses in this hospital, the pay we get is reasonable.			.79			
	26	Compared to other hospitals, we at this hospital are poorly paid.			.52			
Professional status	5	I am satisfied with the types of activities that I do in my job.						.40
	15	Even if I could make more money in another place, I am more satisfied here because of the working conditions.						.41
	27	I sometimes feel my job is meaningless.						.42
	32	I am proud to talk to other people about what I do in my job.						.43
	20	If I had the decision to make all over again, I would still go into nursing.						.40
Doctor-nurse relationship	10	Physicians in general don't co-operate with the nursing staff on my unit.		.74				
	21	Doctors do not understand the constraints faced by nurses.		.53				
	24	Teamwork between nurses and doctors on my unit is encouraging.		.70				
	36	Physicians at this hospital generally understand and appreciate what the nursing staffs do.		.71				
Administration	7	The nursing administrators generally consult with the staff on daily problems and procedures.	.60					
	18	I'm generally satisfied with the way nursing work is organised and gets done at this hospital.	.52					
	25	There is a large gap between the nursing administration of this hospital and the daily problems of the nursing service.	.50					
	28	There are enough opportunities for nurses to advance in their career.						.57
	30	There are adequate teaching and training activities for nurses at this hospital						.58
	34	I have enough opportunities to attend courses in and outside this hospital.						.50
	35	Administrative decisions at this hospital sometimes interfere with patient care more than necessary.	.43					
Task requirements	4	I could deliver much better nursing care if I had more time with each patient.					.63	
	11	I have sufficient time for direct patient care.					.43	
	13	I have the time and opportunity to discuss patient care problems with other nurses.	.40					
	19	A lower workload would improve my performance.					.58	
	31	There is too much clerical and "paperwork" required of the nurses in this hospital.					.44	
	14	I think I could do a better job if I didn't have so much to do all the time.					.60	
Interaction	2	The nurses on my unit often act like "one big happy family".	.58					
	3	Patients/relatives do treat nurses with respect.				.51		
	6	Patients/relatives are generally not appreciative of what nurses do for them.				.57		
	9	There is a good deal of teamwork and co-operation between various levels of nurses at this hospital.	.53					
	16	I have satisfactory relationships with my patients and their families.				.46		
	17	The nurses here are not as friendly as I would like.	.57					
	23	New employees are not quickly made to "feel at home" on my unit.	.45					
	29	The expectation of patients and their relatives on nursing services are unrealistically high.				.44		
	33	Nurses at this hospital do a lot of bickering and backbiting.	.59					
	8	There is a lot of "rank consciousness" at this hospital, nurses seldom mix with others of lower ranks.	.50					

The revised nurses' job satisfaction scale, therefore, was composed of six new factors, which seem to reflect the understanding of job satisfaction and its dimensions, among nurses in Oman. These factors are as follows:

1. Nurse- nurse relationship (previously called Interaction)
2. Doctor-nurse relationship
3. Pay
4. Nurse-patient relationship
5. Workload (previously called Task Requirements)
6. Professional satisfaction (previously called Professional Status)

The overall reliability of the scale as measured in the main study using Cronbach' alpha was 0.83. This value was also very acceptable and indicated a statistically strong scale. The results for the reliability of the subscales are presented in Table 3.12 below. These results are in the acceptable range. Therefore, the nurses' job satisfaction scale is composed of 36 items and six factors (see Appendix 10).

Table 3.12: Results of the Intra- Subscale Reliability Test

Revised factor	Reliability
Nurse- nurse relationship	0.74
Doctor-nurse relationship	0.75
Pay	0.69
Relationship with patients	0.60
Workload	0.52
Professional satisfaction	0.60

3.4.2.7. Implementation of the Questionnaires

The researcher was strongly aware of the need to prepare adequately for the administration of the questionnaires. All levels of the organisation should be involved in the preparatory steps. Lines of communication should be opened between the researcher and the hospital administration, the medical administration and the nursing administration. The researcher first obtained an official letter from the Ministry of

Higher Education to the directors of the hospitals and health centres, asking for their co-operation with the researcher and explaining the purpose of the project (see Appendix 12). The directors welcomed the letter and showed a high level of willingness to participate in the study. The researcher started by preparing the sampling frame from the hospitals and the health centres. Then, the researcher prepared letters to the directors of the hospitals and the health centres explaining again the purpose of the study, determining a date for the beginning of the study, and promising candidates confidentiality. He asked the directors to distribute this letter to all departments, medical and nursing. The letter clearly indicated the ways in which the questionnaires would be distributed and collected (see Appendix 13). By the time of the study, doctors and nurses at all the hospitals and health centres were aware of the study.

The questionnaires were distributed to doctors and nurses in each hospital through their departments' secretaries. The secretary knows all the doctors or nurses working in her/his department and knows how to reach them. The secretary in each department was very supportive and helpful. A closed envelope with the doctor's/nurse's name and place of work (department or section) containing the questionnaire package and an empty envelope with the researcher's name on it was given or sent to each doctor and nurse. Empty boxes were put in the secretariat offices for the collection of the returned questionnaires. The distribution of the questionnaires in the hospitals started in the last week of January 2000 and was completed within three weeks. The researcher allowed a period of four weeks for the completed questionnaires to be returned to the boxes in the secretariat offices. The questionnaires were collected on Monday 13th March 2000 with a good response rate (see Chapter 4). A reminder letter was sent to all departments with a closing date but there were no more responses. With regard to the health centres, the researcher distributed the questionnaires in person in the last week of January 2000 and collected the completed forms within three weeks.

3.4.2.8. Statistical Analysis of the Data

All doctors' and nurses' responses for each question were processed and analysed by using the Statistical Package for Social Science (SPSS). Due to the type of instruments used (different kinds of questionnaires, with a mixture of nominal, ordinal and interval data), the researcher decided to employ both parametric and non-parametric statistical tests. Each type has its own advantages and disadvantages. For example, non-parametric tests do not specify conditions about the parameters of the population from which the sample is drawn (Norusis, 1991 and Bryman and Cramer, 1997). What this means is that the test requires very limited assumptions about the distribution of the data (the tests do not assume that the data are normally distributed). However, these tests have been criticised based on the ground that they are not as powerful as their parametric counterparts (Hubert and Blalock, 1979; Bryman and Cramer, 1997 and Wonnacott and Wonnacott, 1990).

Parametric tests are more powerful tools in statistical analysis. Although the prerequisite for these tests is that the population from which the parameters are obtained is normally distributed, many researchers argue that it is almost impossible to find data that are exactly normally distributed; thus, approximation to normality is sufficient for such tests (Bryman and Cramer, 1997 and Norusis, 1991). Based on this criterion, for variables which did not satisfy the normality criterion, non-parametric tests were employed, whereas for those variables which were proved to be normally or approximately normally distributed, parametric tests were used.

Non-parametric tests

(a) Chi-square test

From the variety of non-parametric tests available, the researcher decided to use the chi-square test. The chi-square test is widely used in conjunction with contingency tables (crosstabulation) which contains a cell for each combination of categories of the two variables. It is used to test statistical significance, meaning that it allows the researcher to ascertain the probability that the observed relationship between the two variables may have arisen by chance. The test is used with ordinal and nominal variables and calculated by comparing the observed frequencies in each cell in a contingency table with those that would occur if there was no relationship between the two variables (Bryman and Cramer, 1997). The chi-square test was used to test hypothesis one.

(b) Rank correlation: relationships between ordinal variables

When variables are at the ordinal level, a measure of correlation can be used called *rank correlation*. One of the prominent methods for examining the relationship between pairs of ordinal variables is Spearman's rho (Bryman and Cramer, 1997). The interpretation of the results is identical to Pearson's r , in that the computed coefficients will vary between -1 and $+1$. Thus it provides information on the strength and direction of relationships. Moreover, unlike Pearson's r , rho is a non-parametric method which means that it can be used in a wide variety of contexts since it makes fewer assumptions about variables (Bryman and Cramer, 1997). This test was used to test hypothesis five.

Parametric tests

Among the parametric tests used, the researcher employed the following:

(a) The t-test:

This test is used to determine if the means of two groups differ statistically. The t-test is calculated by comparing the difference between the two means with the standard error of the difference in the means of the different groups (Bryman and Cramer, 1997). If the difference in the means of the two groups is close to zero, it is more likely that this difference is due to chance. To reject a null hypothesis, it is important to calculate the degree of freedom (df.) which is the number of subjects or respondents (N-1). If the calculated value of t is larger than or equal to a critical value (in the t-distribution table) at the significance level of less than 0.05¹ (p-value is less than or equal to 0.05), the null hypothesis can be rejected at that particular significant level² and degree of freedom. The t-test was used to test hypothesis two.

(b) One-way analysis of variance (ANOVA)

To compare the means of three or more groups, such as the mean job satisfaction of doctors or nurses (in the four hospitals selected in this study), it was necessary to compute a one-way analysis of variance. The test is often termed an F-test, in which an estimate of the between-groups variance (or mean square) is compared with an estimate

¹ Significance levels commonly used in statistical research are the 0.05, 0.01 and 0.001 levels, though the usage of the 0.05 level is the most common (Hubert and Blalock, 1979; p. 161).

² The level of significance has nothing to do with the size or importance of a difference. It is simply concerned with the probability of that difference arising by chance. For example, if the level of significance is set at 0.05, it would be expected that the probability of that difference arising by chance is five out of a hundred times for every hundred times the same sample is collected from the same population.

of the within-groups variance (or mean square) by dividing the former by the latter (Bryman and Cramer, 1997). The total amount of variance in the dependent variable (i.e., job satisfaction) can be thought of as comprising two elements: that which is due to the independent variable (i.e., hospital type) and that which is due to other factors. The variance that is due to the independent factors is referred to as explained variance, whereas the variance that is caused by other factors is described as error or residual variance. If the explained variance (between-groups) is considerably larger than the error or (residual) variance (within groups), then the F-ratio will be higher, which implies that the difference between the means is unlikely to be due to chance. The F-test or ratio only tells us whether there is a significant difference between one or more of the groups. It does not inform us where this difference lies. A number of tests, which take account of this fact, have been developed and are available on the **Post Hoc** option which opens the **One-Way ANOVA (in SPSS): Post Hoc Multiple Comparisons**. Because these tests are carried out after the data have been initially analysed, they are referred to as *post hoc* or *a posteriori* tests (Bryman and Cramer, 1997). One of these tests is the Tukey's test. ANOVA and Tukey's test were used to test hypotheses three, four and six.

(d) Regression Analysis

Regression analysis, in the form of multiple regression, is regarded as the most widely used and powerful tool for summarizing the relationship between variables and for prediction of the dependent variable (Bryman and Cramer, 1997). In the computation of the multiple-regression equation, the researcher employed a procedure called *stepwise* to decide the sequence of the entry of variables into the equation. The stepwise selection of independent variables is the most commonly used method in

testing regression (Norusis, 1993, Bryman and Cramer, 1997). It is a combination of forward and backward selection.

3.4.3. Focus Groups

3.4.3.1. Introduction

There are many definitions of a focus group in the literature, but features like organised discussion (Kitzinger 1994), collective activity (Powell et al 1996a), social events (Goss & Leinbach 1996) and interaction (Kitzinger 1995) identify the contribution that focus groups make to social research. Powell et al. (1996a, p. 499) define a focus group as: "a group of individuals selected and assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research".

Focus groups are a form of group interviewing but it is important to distinguish between the two. Group interviewing involves interviewing a number of people at the same time, the emphasis being on questions and responses between the researcher and participants. Focus groups, however, rely on "interaction within the group based on topics that are supplied by the researcher" (Morgan 1997, p. 12). Hence, the key characteristic which distinguishes focus groups is the insight and data produced by the interaction between participants. The discussion is comfortable and often enjoyable for participants as they share their ideas and perception. Group members influence each other by responding to ideas and comments in the discussion (Krueger, 1994)

Merton and Kendall's (1946) influential article on the focused interview set the parameters for focus group development. This was in terms of ensuring that participants have a specific experience of or opinion about the topic under investigation; that an explicit interview guide is used; and that the subjective experiences of participants are explored in relation to predetermined research questions.

The focus group is far from new. The method can be traced back to the Second World War, when sociological research was conducted into the effectiveness of wartime propaganda under the leadership of Merton. Since then, their main use has been primarily to discover consumers' attitudes in marketing. According to Morgan (1988), focus groups are the predominant form of qualitative research in marketing. He noted "the contribution of focus groups to social science research at present is more potential than real" (1988, p. 75) and argued that returning the focus group technique to social science research would require considerable borrowing and considerable innovation. Since then, however, there has been an exponential rise in the number of studies employing focus group methodology in sociology.

Not only advertisers but even politicians and businessmen are unable to make any decisions without first commissioning a series of focus groups (Furnham, *Telegraph* 1998). Indeed, the British Prime Minister, Tony Blair, famously declared, "there is no one more powerful than a member of a focus group" (cited in Ferguson, 1997, p. 46). It is obvious that focus groups are currently enjoying unprecedented popularity.

3.4.3.2. Focus Groups in Comparison to Other Methods

The main purpose of focus group research is to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way in which would not be feasible using other methods, for example observation, one-to-one interviewing, or questionnaire surveys. These attitudes, feelings and beliefs may be partially independent of a group or its social setting, but are more likely to be revealed via the social gathering and the interaction which being in a focus group entails. Compared to individual interviews, which aim to obtain individual attitudes, beliefs and feelings, focus groups elicit a multiplicity of views and emotional processes within a group context. The individual interview is easier for the researcher to control than a focus group, in which participants may take the initiative. Compared to observation, a focus

group enables the researcher to gain a larger amount of information in a shorter period of time. Observational methods tend to depend on waiting for things to happen, whereas the researcher follows an interview guide in a focus group. In this sense focus groups are not natural but organised events. Focus groups are particularly useful when there are power differences between the participants and decision-makers or professionals, when the everyday use of language and culture of particular groups is of interest, and when one wants to explore the degree of consensus on a given topic (Morgan & Kreuger 1993). As Kitzinger says, "focus groups reach the parts that other methods cannot reach" (Kitzinger, 1994, p. 299).

3.4.3.3. The Role of Focus Groups

Focus groups can be used in four different ways in relation to quantitative methods (see for example Krueger, 1994):

1. Focus groups can precede quantitative procedure, for exploring and preparing (questionnaires for example) and they can help to explore or generate hypotheses (Powell & Single, 1996b), though they need not be limited to such preliminary and exploratory purposes.
2. Focus groups can be used at the same time as quantitative procedures (triangulation) to confirm findings and to obtain both breadth and depth of information. This is the way, which is of most interest to the researcher and was used in this project.
3. Focus groups can follow quantitative procedures to provide insights about the meaning and interpretation of the results.
4. Focus groups can be used alone (self-contained focus groups). However, in marketing, while focus groups and other qualitative methods are considered

to be a useful preliminary or exploratory tool, their results must be verified by quantitative work on representative samples.

3.4.3.4. Strengths of Focus Groups

There are a number of broad advantages to the use of focus groups. These may be summarised as follows:

1. Focus groups are relatively cheap and quick, and comparatively easy to conduct;
2. Focus groups allow the researcher to interact directly with respondents. This provides opportunities for the clarification of responses to minimise misunderstanding, for probing and for the observation of non-verbal responses;
3. Focus groups have the ability to explore topics and generate hypotheses;
4. Focus groups allow respondents to react to and build upon the response of other group members, so there is an opportunity to collect data from group interaction;
5. Participants may feel supported and empowered by a sense of group membership and cohesiveness;
6. Focus groups are very flexible. They can easily operate across traditional boundaries to examine a wide range of topics with a variety of individuals and in a variety of settings;
7. Focus groups may be one of the few research tools available for obtaining data from children or from individuals who are not particularly literate (Stewart and Shamdasani, 1990; Morgan, 1988, 1993).

3.4.3.5. Weaknesses of Focus Groups

Although focus group research has many advantages, as with all research methods there are limitations. Some can be overcome by careful planning and moderating, but others are unavoidable and peculiar to this research method:

1. One cannot make generalisations from small, unrepresentative samples;
2. The open-ended nature of responses obtained in focus groups often makes summarisation and interpretation of results difficult;
3. The moderator may bias results by knowingly or unknowingly providing cues about what types of responses and answers are desirable;
4. Focus groups require carefully trained moderators (Furnham, 1988; Krueger, 1994; and Stewart and Shamdasani, 1990).

3.4.3.6 Focus Group Planning (Sampling, Composition and Preparation)

The sampling strategy used with focus groups depends entirely on the purpose of the project. This is why the group is called a 'purposive sample'. The sample should contain those segments of the population who will generate the most productive discussions and who will provide the most meaningful information in terms of the project goals. It is good advice to "concentrate on those population segments that are going to provide the most meaningful information" (Axelrod, 1975b, cited in Morgan, 1988, p. 45). They are what Patton (1990) calls "information-rich" cases. In these cases, random sampling of the population would be a waste of time and resources. However, the researcher often assembles a pool of potential participants and then selects randomly from within this pool of qualified individuals. This level of randomisation is regularly done, and it helps minimise selection bias (Krueger, 1998a).

Sample size varies. According to Morgan (1998) there is no fixed rule about how many groups are enough for a certain project. Most commonly, projects require 3 to 5 focus group sessions. In fact, this depends on the complexity of the topic and diversity of the people being studied. More complex topics will require more focus group sessions, but this decision should be made taking into consideration the cost in terms of time and resources and the process of analysing the data.

Regarding the group size, different researchers suggest different ranges. Some suggest 6 to 12 participants. Others would advocate between 6 and 8. In *Focus Group Kit 2*, Morgan (1998) suggests 6 to 10 participants.

Deciding on the appropriate group composition for focus groups is crucial. The researchers of focus groups differ in their views as to whether it is necessary to use screening procedures during the recruitment of participants. Some argue in favour of screening, on the basis that differences in the background of the participants may affect the flow of discussion, due to lack of common ground. Others argue the opposite, that if all the participants share a virtually identical background then this can lead to a flat, unproductive discussion.

According to Kitzinger (1995) most researchers recommend aiming at homogeneity within each group, in order to capitalise on people's shared experiences. However, it can also be advantageous to bring together a diverse group (for example, from a range of professions) to maximise exploration of different perspectives within a group setting. However, it is important to be aware of how hierarchy within the group may affect the data (a nursing auxiliary, for example, is likely to be inhibited by the presence of a consultant from the same hospital). Homogeneity within the groups is necessary for participants to be compatible (Morgan, 1998).

Recruitment of strangers has, more recently, been recognised as an "overly rigid restriction" (Morgan & Krueger, 1993). However, the conviction of the necessity of working with strangers may be a product of the constraints peculiar to marketing research.

The most important thing is that participants need to feel comfortable with each other. Meeting with others whom they think of as possessing similar characteristics or levels of understanding about a given topic, will be more appealing than meeting with those who are perceived to be different (Morgan, 1988).

This study aimed to identify the determinants of job satisfaction of health professionals (doctors and nurses) working in the Muscat region, Oman. Those health professionals were working for different employers: the Ministry of Higher Education (Sultan Qaboos University Hospital), the Ministry of Health (Royal Hospital and the Primary Care Health Centres) and the private sector (Al Shatti Hospital). There were different groups of doctors and nurses, Omani and non-Omani, seniors and juniors, with different specialisations. Therefore, the researcher decided to use one focus group session for each organisation. Each focus group included doctors and nurses, Omanis and expatriates, seniors and juniors from various disciplines, to get a wide range of opinions regarding the topic of the study. However, much of the focus group literature advises against mixing categories of people within one organisation (Morgan, 1988). This advice stems from a recognition that there are likely to be routine patterns of what people do and do not discuss together and perhaps resistance towards exploring issues which may be of interest to the researcher but may be taboo for the group. Morgan and Krueger (1993, p. 6) suggest a way to counter the unfortunate effects of group composition: "Another way to minimise problems with group composition is through extra effort in selecting and ordering the questions in the interview guide". It was very difficult to conduct more than one group discussion in each organisation (for example

one group for nurses and another for doctors) due to the arrangements of work and time constraints and no-one was willing to stay, after a long day of work, to participate in the group discussion.

For groups of health professionals, such as doctors and nurses, individual recruitment was necessary. A sample of individuals was drawn from current listings of doctors and nurses who participated in the questionnaire survey. The researcher personally contacted each individual selected at his/her place of work. About eight doctors and eight nurses were contacted at each organisation, because it was anticipated that some people might not come. This initial contact was three weeks prior to the scheduled discussion date. In this initial contact, the researcher introduced himself to the participants and explained the purpose of the study. He gave an idea about focus group discussion and obtained verbal agreement for participation. Also, the researcher obtained the contact numbers (mobile, pager, or residence phone number) of those who agreed to participate. Two weeks later, a confirmation letter was sent to each participant with a general idea about the topic and a guarantee of confidentiality, and the date, time and place of the focus group (see Appendix 14). Final confirmatory contact was made on the morning of the day of the focus group.

3.4.3.7. Running the Groups

Once a meeting has been arranged, the role of moderator or group facilitator becomes critical, especially in terms of providing clear explanations of the purpose of the group, helping people feel at ease, and facilitating interaction between group members. The moderator could be the researcher himself or a selected professional person who is comfortable and familiar with group processes. In this study, the researcher himself was the moderator of the focus groups. It was necessary, however, to enlist the assistance of a colleague, who timed the session and took brief notes on the

sequence of the discussion, to help with later identification of speakers when the tapes were transcribed.

According to Stewart and Shamdasani (1990) there is no one best style for leading a focus group, nor is there a single best 'type' of moderator. During the meeting, moderators will need to promote debate, perhaps by asking open questions. They may also need to challenge participants, especially to draw out people's differences, and tease out a diverse range of meanings on the topic under discussion. Sometimes moderators will need to probe for details, or move things forward when the conversation is drifting or has reached a minor conclusion. Moderators also have to keep the session focused and so sometimes they may deliberately have to steer the conversation back on course. Moderators also have to ensure everyone participates and gets a chance to speak. At the same time, moderators are encouraged not to show too much approval (Krueger 1988), so as to avoid favouring particular participants. They must avoid giving personal opinions so as not to influence participants towards any particular position or opinion. Moderators will need to possess good interpersonal skills and personal qualities, being good listeners, non-judgmental and adaptable. These qualities will promote the participants' trust in the moderator and increase the likelihood of open, interactive dialogue.

An interview guide was used in running the focus groups. The purpose of the interview guide was to provide direction for the group discussion. Krueger (1998b) advises use of the questioning route. The researcher prepared an interview guide, translating the research objectives into questions (see Appendix 11). All the questions were open-ended, clear and simple.

Selection of the place was balanced between the interest of the project and that of the participants. The location was convenient and comfortable for the participants, and

refreshments were available. In addition, gifts were offered to all participants after the sessions.

Three focus group interviews were conducted for this study. The first group was at the Royal Hospital and it included eight participants: five nurses (two Omanis and three expatriates), and three doctors (one Omani and two expatriates). The second group was conducted in the University Hospital with eleven participants: five nurses (two Omanis and three expatriates), and six doctors (two Omanis and four expatriates). The last focus group conducted with doctors and nurses from the health centres in Muscat region. There were eight participants; three Omani doctors, two expatriate doctors, two Omani nurses and one expatriate nurse, representing the three health centres selected for the study. This last focus group was held at the Department of Family Medicine- College of Medicine, Sultan Qaboos University. Unfortunately, it was difficult to conduct a focus group at Al Shatti Hospital (private sector) because of the unwillingness of doctors and nurses in this hospital to participate in a group discussion, for reasons such as shortage of staff and time constraints.

The assistant took notes of the discussion and the sessions were tape-recorded, with the consent of the participants. At the end of each focus group, the assistant moderator summarised the key points in the interview to ensure that the researcher had adequately understood the intent of participants. Immediately, after the group interview, there was a debriefing between the researcher (the moderator) and the assistant moderator on the most important ideas expressed. This debriefing captured the first impressions and highlighted and then contrasted the findings with those from earlier focus groups. After each group discussion; the tape was reviewed and a full transcription was made. This took three to four hours for each recorded session.

3.4.3.8. Analysis and Writing Up

Analysing focus group outcomes is basically the same as analysing any other qualitative self-report data (Britten, 1995). At the very least, the researcher draws together and compares discussions of similar themes and examines how these relate to the variables within the sample population. Here is a quotation from Krueger (1994) which nicely summarises the data analysis process:

"...Remember that the researcher is the detective looking for trends and patterns that occur across the various groups. The analysis process begins with assembling the raw materials and getting an overview or total picture of the entire process. The researcher's role in analysis covers a continuum with assembly of raw data on one extreme and interpretative comments on the other. The analysis process involves consideration of words, tone, context, non-verbal, internal consistency, frequency, extensiveness, intensity, specificity of responses and big ideas. Data reduction strategies are essential in the analysis" (p. 80)

In order to analyse the focus group data, the researcher read the transcripts several times to familiarise himself with the content and to gain an understanding of the "themes" of responses. The "categories" or "themes" of findings were defined and related to the original research aims. Also, potential quotations were highlighted to substantiate various ideas and points of view. A "Cut and Paste" process was used to put appropriate responses under category headings. As this is a qualitative research, no attempt was made to quantify findings.

According to Krueger (1998a) the skeleton or framework of the report of the results of focus groups is typically composed of the key questions or the big ideas that have emerged from the discussion. These questions and big ideas serve as the outline for the results or findings section. These results can be presented using three different styles or models. The first style of presentation consists of the question or idea, followed by participant comments (the raw data model). The second style is a summary description, followed by illustrative quotes (the descriptive model). The third style is a summary description with illustrative quotes, followed by an interpretation (the interpretative model). The raw data reporting style is faster and easier for the

researcher, but this style essentially transfers the work of analysis to the reader of the report. This style is recommended only as a prelude to the descriptive or interpretative styles or in situations where the analyst has limited skills. Both the descriptive and interpretative styles have advantage of data reduction, with the interpretative procedure providing the greatest depth in analysis. The interpretative style was used in writing up the results of the focus groups in this study.

3.5. Conclusion

The chapter has explained the methods used to carry out the empirical research to identify the factors contributing to job satisfaction of doctors and nurses in Oman. A triangulation method was employed to collect both qualitative and quantitative data. Gathering data through different collection techniques enabled more accurate testing of the assumptions and hypotheses made by this study, and facilitated description of several dimensions of job satisfaction. The main instrument was survey questionnaires, designed to provide quantitative data. The questionnaires were supplemented by qualitative data derived from focus groups interviews. The two methods, therefore, offer different types of data, which fit well together. In this case the researcher has more confidence concerning his conclusions than he would have if he had employed a single method.

The respondents (nurses) included in this study were selected by a stratified random sampling method. Besides it being more representative and decreasing the probable sampling error, the sampling technique selected minimises time and cost.

Before ending this chapter it is important to explain at this stage that all testing of hypotheses carried out in the following chapter was conducted at the 0.05 level of significance. The t- test has been interpreted on the two-tailed test.

CHAPTER FOUR

RESULTS OF THE SURVEY

The results of the statistical analyses of the responses reported by the survey respondents (doctors and nurses) are presented in this chapter. The first section is devoted to the results of the doctors' survey. In this section, the demographic findings, descriptive statistics of job satisfaction and job-induced stress are reported first, followed by presentation of the findings related to the research hypotheses. A report of the results of the open-ended questions is then presented. In a similar way, the next section presents the findings of the nurses' survey. Then the chapter concludes with a summary.

4.1. Section One - Doctors' Survey

4.1.1. Descriptive Statistics

This section is divided into three parts. The first part deals with the description of the sample obtained and the demographic details of the respondents. The second part presents the mean scores and standard deviations of each component of job satisfaction and also presents the mean scores and standard deviations of the items comprising these components. The third part deals with the mean scores and standard deviations of the items of the job-related stress scale.

4.1.1.1. Description of the Sample Obtained: Demographic Details of Respondents

Return rate

Questionnaire packets were distributed to 371 doctors working in the selected hospitals and health centres in Muscat region. Completed valid questionnaires were

received from 264 doctors, a response rate of 71.2%. The response rate according to each health institution is displayed in Table 4.1.1 below:

Table 4.1.1: Response Rate from each Health Institution

Health Institution	Sample	Returned	Response Rate
Royal Hospital	180	129	72%
University Hospital	139	89	64%
Al- Shatti Hospital	22	21	95%
Health Centers	30	25	83%

Demographic Characteristics of Doctors

The survey asked doctors to provide personal information about themselves on a number of demographic characteristics: age, sex, nationality, religion, marital status, number of children, salary, main specialisation, post (designation), highest degree, years worked in Oman (expatriates), period in the current post, work experience, and weekly working hours.

Age

Part A of Table 4.1.2 represents the distribution of respondents by age groups. The table shows that 30 (11.4%) of the respondents were between 24-30 years of age, 91 (34.6%) between 31-40 years, 100 (38.0%) between 41-50 years and 42 (16.0%) were 51 years or older. It appears from the table that the majority of respondents were in the middle two age groups.

Sex

Part B of Table 4.1.2 shows that 181 (68.6%) of the respondents were male and 83 (31.4%) were female.

Nationality

Part C of Table 4.1.2 represents the distribution of doctors by nationality: Omani and non-Omani. There was no specification of nationality for non-Omanis for confidentiality reasons but the majority were Indians. The table shows that 71 (26.9%) of the respondents were Omani and 193 (73.1%) were non-Omani. As it is obvious from the table, the majority of doctors were expatriates. On the national level, Omani doctors represent about 15% of the total medical doctors in the Ministry of Health (MOH, 1998).

Religion

Part D of Table 4.1.2 represents the distribution of respondents by religion. The table shows that 129 (49.2%) of respondents were Muslims of whom 55% were Omanis, 55 (21.0%) were Christians, 69 (26.3%) were Hindu, and nine (3.4%) were adherents of other religions. It appears from the table that almost half of the respondents (49.2%) were Muslims.

Marital Status and Number of Children

Part E of Table 4.1.2 represents the marital status. The table shows that 19 (7.2%) of the respondents were single of whom 84% were Omanis, 239 (90.5%) were married and five (1.9%) represented the other groups (divorced, widowed, and separated). The majority of doctors in this sample (90.5%) were married.

Part F of the table shows that 35 (13.3%) of doctors in this sample had no children, 200 (75.8%) had 1-3 children, 29 (11.0%) had 4-6 children and no one had more than 6 children.

Availability of Family Members in Oman

Part G of Table 4.1.2 shows the distribution of respondents (expatriate doctors) by the availability of family in Oman. The table shows that 157 (82.6%) of the expatriate doctors in this study were accompanied by members of their families and 33 (17.0%) had left their families behind in their home countries.

Table 4.1.2: Distribution of Respondents by Age group, Sex, Nationality, Religion, Marital Status, Number of Children and Availability of Family Members

A)	Age group / years	N	%
1.	24-30 years	30	11.4
2.	31-40 years	91	34.6
3.	41-50 years	100	38.0
4.	51 years or more	42	16.0
	<i>Total:</i>	263	100.0
B)	Sex		
1.	Male	181	68.6
2.	Female	83	31.4
	<i>Total:</i>	264	100.0
C)	Nationality		
1.	Omani	71	26.9
2.	Non- Omani	193	73.1
	<i>Total:</i>	264	100.0
D)	Religion		
1.	Muslim	129	49.3
2.	Christian	55	21.0
3.	Hindu	69	26.3
4.	Others	9	3.4
	<i>Total:</i>	262	100.0
E)	Marital Status		
1.	Single	19	7.2
2.	Married	239	90.9
3.	Others (divorced, separated and widowed)	5	1.9
	<i>Total:</i>	263	100.0
F)	Number of Children		
1.	None	35	13.2
2.	1-3	200	75.8
3.	4-6	29	11.0
4.	More than 6	0	0.0
	<i>Total:</i>	264	100.0
G)	Availability of Family Members in*		
1.	Available	157	82.6
2.	Not available	33	17.4
	<i>Total:</i>	190	100.0

* Non-Omani only

Monthly Salary

Table 4.1.3 represents the distribution of the respondents by monthly salary. The table shows that 13 (5.0%) of the respondents had a monthly salary of less than 500 OR, 89 (34.1%) had a monthly salary ranging between 501-800 OR, 48 (18.4%) had a monthly salary of 801-1200 OR, 25 (9.6%) had a salary of 1201-1400 OR and 86 (33.0%) had a monthly salary greater than 1400 OR.

Table 4.1.3: Distribution of Respondents by Monthly Salary

	Monthly Salary (in Omani Riyals, OR)	N	%
1	< 500 OR	13	5.0
2	501-800 OR	89	34.1
3	801-1200 OR	48	18.4
4	1201-1400 OR	25	9.6
5	More Than 1400	86	33.0
	<i>Total:</i>	<i>261</i>	<i>100.0</i>

Table 4.1.4 shows the respondents' distribution by monthly salary in each health institution. In the University Hospital the majority of respondents (doctors) earned more than 800 OR and 37.5% earned more than 1400 OR. In Royal Hospital, 46.5% of respondents had salaries of 800 OR or less and 33.1% earned more than 1400 OR. Also the table shows that majority of doctors (84.0%) in the Health Centres were paid 800 OR or less. In the private hospital (Al-Shatti) 52.4% of doctors earned more than 1400 OR.

Table 4.1.4: Comparison of Respondents' (Doctors) Monthly Salary between Health Institutions

Health Institution	N	Monthly Salary in Omani Riyals		
		< 800	801-1400	> 1400
University Hospital (Sultan Qaboos University)	88	19 (21.6%)	36 (40.9%)	33 (37.5%)
Royal Hospital (Ministry of Health)	127	59 (46.5%)	26 (20.5%)	42 (33.1%)
Health Centers (Ministry of Health)	25	21 (84.0%)	4 (16.0)	0
Al- Shatti Hospital (Private Sector)	21	3 (14.3)	7 (33.3)	11 (52.4%)

Main Specialisation

Table 4.1.5 represents the distribution of respondents by main specialisation. Doctors were working in a range of disciplines: the largest proportion (20.3%) were in surgery. The next largest groups were working in medicine, paediatrics, and general practice: 16.9% and 14.6% and 14.6% respectively. 9.2% of respondents were working in obstetrics and gynaecology, 8.8% in anaesthesia and 6.5% in accident and emergency. The smallest number (3.8%) were working in radiology.

Table 4.1.5: Distribution of Respondents by Main Specialism

Main Specialism	N	%
Surgery	53	20.3
Medicine	44	16.9
Obstetrics & Gynaecology	24	9.2
Paediatrics	38	14.6
Accident & Emergency (A & E)	17	6.5
Anaesthesia	23	8.8
Radiology	10	3.8
General Practice	38	14.6
Others	14	5.4
<i>Total:</i>	<i>261</i>	<i>100.0</i>

Designation (Post)

Table 4.1.6 represents the distribution of respondents by designation. The table shows that the largest group of doctors in this sample (40.0%) were specialists. The next largest proportion of doctors (33.5%) were medical officers (doctors without any specialism and residents). 26.5% of doctors were in the highest posts as consultants and professors. 56.3% of Omani doctors were medical officers and 65% of expatriate doctors were at higher posts (specialists and consultants).

Table 4.1.6: Distribution of Respondents by Designation

Designation	N	%
Medical Officer (doctors without any specialism and residents)	87	33.5
Specialist or Registrar	104	40.0
Consultant or Professor	69	26.5
<i>Total:</i>	<i>260</i>	<i>100.0</i>

Qualifications

Table 4.1.7 represents the distribution of respondents by highest degree or qualifications. The table shows that 40.3% of doctors in this study had membership or higher qualifications, 29.7% had postgraduate diplomas or equivalent and 30.0% had only M.D. or MBBS.

Table 4.1.7: Distribution of Respondents by Highest Degree (from lowest to highest)

Highest Degree	N	%
M.D. (MBBS) (graduate degrees in medicine)	79	30.0
Post Graduate Diploma or Equivalent.	78	29.7
Membership or Equivalent (and higher)	106	40.3
<i>Total:</i>	<i>263</i>	<i>100.0</i>

Years at the Present Work Position

Part A of Table 4.1.8 shows the distribution of respondents by number of years in their current work position. The largest proportion of doctors (40.5%) had been in their current position for 1-4 years. The next largest group (28.6%) had been there for more than eight years. Another 20.2% had been in their current post for 5- 8 years and 10.7% for less than one year.

Years Worked in Oman (for Non-Omani)

Part B of Table 4.1.8 represents the distribution of non- Omani respondents by number of years worked in Oman. The table shows that 11 (5.7%) doctors had been in Oman for less than one year, 75 (38.9%) from one to five years, 61 (31.6%) from six to ten years, 30 (15.5%) from 11 to 15 years and 16 (8.3%) for more than 15 years. It is obvious from the table that the majority of expatriate doctors had been in Oman for less than ten years.

Work Experience

Part C of Table 4.1.8 shows the distribution of respondents by work experience. The table shows that 31 (11.9%) had less than five years experience, 47 (18.1%) had from five to ten years, 67 (25.8%) had from 11 to 16 years, 61 (23.5%) had from 17 to 22 years and 54 (20.8%) had more than 22 years work experience. It is clear from the table that about 44.3% had work experience in excess of 16 years.

Weekly Working Hours

Part D of Table 4.1.8 describes the distribution of respondents by weekly working hours. The largest group of doctors (41.6%) were working 36 to 52 hours a week. The next largest proportion (22.5%) were working 53 to 69 hours a week. The table also

shows that 16.0 % were working 70 to 86 hours and 6.9% were working more than 86 hours per week. However, 13.0% were working only 35 hours a week.

Table 4.1.8: Distribution of Respondents by Years in the Present Work Position, Years Worked in Oman, Work Experience and Weekly Working Hours

A)	Years in the Present Work Position	N	%
1.	< 1 year	28	10.7
2.	1-4 years	106	40.5
3.	5-8 years	53	20.2
4.	More than 8 years	75	28.6
	<i>Total:</i>	262	100.0
B)	Years Worked in Oman (for Non-Omanis)		
1.	< 1 year	11	5.7
2.	1-5 years	75	38.9
3.	6-10 years	61	31.6
4.	11-15 years	30	15.5
5.	More than 15 years	16	8.3
	<i>Total:</i>	193	100.0
C)	Work Experience		
1.	< 5 years	31	11.9
2.	5-10 years	47	18.1
3.	11-16 years	67	25.8
4.	17-22 years	61	23.5
5.	More than 22 years	54	20.8
	<i>Total:</i>	260	100.0
D)	Weekly Working Hours		
1.	35 hours	35	13.0
2.	36-52 hours	109	41.6
3.	53-69 hours	59	22.5
4.	70-86 hours	42	16.0
5.	More than 86 hours	18	6.9
	<i>Total:</i>	262	100.0

4.1.1.2. Job Satisfaction Profile

Part II of the questionnaire contained a measure of job satisfaction. Factor analysis produced 35 items which measure respondents' current level of satisfaction in relation to six job components: professional status, teamwork, professional development, administration, workload and pay.

Analysis was performed by computing the mean and standard deviation scores for each item. Component (subscale) mean and standard deviation scores were calculated by dividing the sum of the item scores by the number of items comprising that component. The overall job satisfaction mean and standard deviation scores were calculated by dividing the sum of the components (subscales) scores by their number (six). These mean and standard deviation scores are based on a response scale of 1 to 5, in which 1 represents strong dissatisfaction with the item concerned and 5, strong satisfaction. Therefore, the higher the mean, the stronger the satisfaction with the item and the lower the mean, the stronger the dissatisfaction. In this study, a mean score of 3 or more indicates satisfaction and mean score below 3 indicates dissatisfaction.

The Level of Job Satisfaction among the Study Sample

Job satisfaction was categorised into two levels as follows:

<u>Satisfaction level</u>	<u>Mean scores/ out of 5 points</u>
1) Satisfied	3.00 and more
2) Dissatisfied	below 3.00

Table 4.1.9 reflects that the majority 160 (68.4%) of respondents were satisfied with their job with a mean score of 3.45. The dissatisfied group was composed of seventy-four respondents (31.6%) with and a mean score of 2.70.

Table 4.1.9: Classification of Respondents by Satisfaction Levels

Satisfaction level	N	%	Mean	S.D
1) Satisfied	160	68.4	3.45	0.27
2) Dissatisfied	74	31.6	2.70	0.23

Overall Job Satisfaction

Table 4.1.10 shows that doctors were satisfied with their professional status, and teamwork. However, they expressed moderate satisfaction with professional

development; and they were dissatisfied with their administration, pay and workload. The "Overall Job Satisfaction" score was $M = 3.21$ and Standard Deviation = 0.44. This is not high, but is greater than three, suggesting that doctors find their job more satisfying than dissatisfying.

Table 4.1.10: Mean Total Scores for Job Satisfaction Components and Overall Job Satisfaction Ranked from Most Satisfied to Least Satisfied

Facet (Component)	N	Mean	S.D.
Satisfaction with Professional Status	259*	3.77	0.52
Satisfaction with Teamwork	256	3.44	0.58
Satisfaction with Professional Development	261	3.09	0.84
Satisfaction with Administration	263	2.97	0.77
Satisfaction with Workload	252	2.86	0.77
Satisfaction with Pay	258	2.50	0.82
Overall Satisfaction	234	3.21	0.44

*Variations in numbers are due to missing data

Satisfaction with Professional Status

The component mean score was $M = 3.77$, the highest of all components, which indicates that doctors were highly satisfied with their job status. Table 4.1.11 shows the item mean and standard deviation scores obtained in this component. Responses to item #19 "I sometimes feel my job is meaningless" ($M = 4.06$) highlight a general disagreement with this item, indicating that the doctor's job is meaningful and challenging. Items (#3 and #31) indicate that doctors felt that what they were doing was appreciated and valued by patients and society. Additionally, the freedom in work to make important decisions according to one's professional judgement is an essential element of professional status (item # 4).

Table 4.1.11: Item Mean and Standard Deviation Scores for Satisfaction with Professional Status Component

Number of Item	Item	N	Mean	S.D.
3	I have satisfactory relationships with my patients and their families.	264	4.23	.66
19	I sometimes feel my job is meaningless.	264	4.06	0.93
34	If I had the decision to make all over again, I would still go into medicine.	263	3.86	1.13
4	I have the freedom in my work to make important decisions as I see fit.	263	3.71	1.01
6	I am proud to talk to other people about what I do in my job.	262	3.69	0.95
31	Patients/relatives are generally appreciative of what doctors do for them.	263	3.63	.81
29	I am satisfied with the types of activities that I do in my job.	264	3.58	0.91
26	Even if I could make more money in another place, I am more satisfied here because of the working conditions.	264	3.34	1.01
	Component Mean and Standard Deviation:	259	3.77	0.52

Satisfaction with Teamwork

The component mean score for "Satisfaction with Teamwork" was $M = 3.44$ which indicates satisfaction. Table 4.1.12 shows the item mean and standard deviation scores obtained. It is interesting to note that doctors reported considerable satisfaction with team spirit, contact with their colleagues and the people they work with, indicating that support derived from their immediate environment is readily available.

Table 4.1.12: Item Mean and Standard Deviation Scores for Satisfaction with Teamwork Component

Number of Item	Item	N	Mean	S.D.
27	I have the time and the opportunity to discuss patients with other colleagues.	264	3.72	0.77
16	My colleagues appreciate my work.	262	3.65	0.73
28	New employees are not quickly made to "feel at home" on my unit.	264	3.58	0.94
12	Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.	262	3.57	0.92
8	The people here get along together very well.	263	3.46	0.96
37	There is no team spirit here.	264	3.44	1.03
33	There is a good deal of teamwork and co-operation between various specialities and departments in this hospital.	264	3.39	0.98
36	I'm generally satisfied with the way medical work is organised and gets done at this hospital.	263	3.27	0.99
5	Doctors in my department don't often act like "one big happy family".	262	3.23	1.09
25	I have no opportunity to discuss personal problems with individuals in my department.	263	3.16	1.00
	Component Mean and Standard Deviation:	256	3.44	0.58

Satisfaction with Professional Development

The component mean score for "Satisfaction with Professional Development" was $M = 3.09$ which indicates moderate satisfaction. Table 4.1.13 shows the item mean and standard deviation scores obtained. In general, doctors were moderately satisfied with the opportunities available for continuing professional development.

Table 4.1.13: Item Mean and Standard Deviation Scores for Satisfaction with Professional Development Component

Number of Item	Item	N	Mean	S.D.
2	I have a great opportunity for continuing professional development.	262	3.23	1.06
10	There are adequate teaching and training activities for doctors at this hospital.	264	3.10	1.16
22	There are enough opportunities for advancement in my career.	263	2.98	.84
	Component Mean and Standard Deviation:	261	3.09	1.07

Satisfaction with Administration

Table 4.1.14 shows the item mean and standard deviation scores obtained. The component mean score for "Satisfaction with Administration", was $M = 2.97$, indicating the dissatisfaction of the sample with this component. There was clear dissatisfaction because of lack of effective communication with the administration, and because of the more than necessary interference of administrative decisions with patient care (items 30 and 13).

Table 4.1.14: Item Mean and Standard Deviation Scores for Satisfaction with Administration Component

Number of Item	Item	N	Mean	S.D.
17	I am sometimes required to do things in my job that are against my better professional judgement.	264	3.28	1.07
30	There is a large gap between the administration of this hospital and the daily problems of medical service.	263	2.89	1.06
13	Administrative decisions at this hospital sometimes interfere with patient care more than necessary	264	2.74	1.02
	Component Mean and Standard Deviation:	263	2.97	0.77

Satisfaction with Workload

As Table 4.1.15 shows, the component mean score was $M = 2.86$, indicating dissatisfaction with this component. There was moderate satisfaction with time spent on administration (paperwork) (item 18). Items 21, 15, and 11 also indicate moderate level of satisfaction with time off-duty, time for reading professional literature, and time for patient assessment because of heavy workload. However, items 35, 9, and 7 indicate clear dissatisfaction with the amount of work, which negatively affects doctors' performance and the quality of care given to the patients.

Table 4.1.15: Item Mean and Standard Deviation Scores for Satisfaction with Workload Component

Number of Item	Item	N	Mean	S.D.
18	In my unit, my patients don't suffer because of the time spent on paperwork.	261	3.28	1.01
21	I have enough time off-duty.	261	3.08	1.15
15	My workload hinders me from keeping abreast of the professional literature.	263	3.03	1.07
11	Due to lack of time, I cannot assist every patient as I wish to do.	263	3.03	1.10
35	I think I could do a better job if I didn't have so much to do all the time.	263	2.71	1.02
9	A lower workload would improve my performance.	262	2.42	1.17
7	I could deliver much better care if I had more time with each patient.	262	2.41	1.11
	Component Mean and Standard Deviation:	252	2.86	0.77

Satisfaction with Pay

Table 4.1.16 shows that the pay component mean score ($M = 2.5$) was lower than 3, indicating that doctors were dissatisfied with their pay. It is important to note that

there was a clear dissatisfaction with items addressing the amount of pay, equity of pay, and the annual increment in salary. The item mean score for "The annual increment in salary for doctors is not satisfactory" was the lowest of any in the questionnaire (M = 2.07). Also, it is important to mention that this component's standard deviation value (S.D. = 0.82) was the highest of any obtained, indicating a wide variation in doctors' attitudes toward pay.

Table 4.1.16: Item Mean and Standard Deviation Scores for Satisfaction with Pay Component

Number of Item	Item	N	Mean	S.D.
14	Considering what is expected of doctors at this hospital, the pay I get is reasonable.	264	2.69	1.03
1	My present salary is satisfactory.	262	2.67	1.08
32	Compared to other hospitals, we at this hospital are poorly paid.	263	2.59	1.11
23	The annual increment in salary for doctors is not satisfactory.	261	2.07	0.95
	Component Mean and Standard Deviation:	258	2.50	0.82

4.1.1.3. Job- Related Stress

Part III of the questionnaire contained a measure of job-related stress, a 27-item Likert scale. Mean scores for the sources of stress are given in Table 4.1.17. The top six stressors were: "night calls" (2.55), "dealing with problem patients" (2.48), "dealing with the terminally ill and their relatives" (2.47), "uncertainty about diagnosis or treatment" (2.44), "time pressure" (2.39) and "interference of job with family life" (2.37).

Table 4.1.17: Item Mean and Standard Deviation Scores for Job-Induced Stress Scale. Each Item is Rated on a Scale of 1 to 4 (1= not at all stressful, 2 = minimally stressful, 3 = moderately stressful and 4 = extremely stressful)

Stressors (Items)	Mean	S.D
Night calls.	2.55	1.05
Dealing with problem patients.	2.48	0.88
Dealing with the terminally ill and their relatives.	2.47	0.94
Uncertainty about diagnosis or treatment.	2.44	0.91
Time pressure.	2.39	1.00
Interference of job with family life.	2.37	0.97
Daily contact with dying and chronically ill patients.	2.28	0.98
Emergency calls during clinic hours.	2.26	0.97
Increased demand by patients and relatives for second opinion (local or abroad).	2.25	0.97
No appreciation of work by patients.	2.22	0.96
Hospital referral and paperwork.	2.16	0.90
Worrying about patients' complaints	2.14	0.81
Coping with phone calls during night and early morning.	2.09	1.02
Need to maintain own knowledge.	2.06	0.96
Interference of your job with social life.	2.06	0.95
Unrealistically high expectations by others of your role.	2.02	0.92
Dealing with relatives as patients.	1.97	0.96
Remaining alert when on call.	1.88	1.01
Dealing with friends as patients.	1.84	0.90
Interruption of family life by telephone.	1.75	0.90
Arranging admissions.	1.73	0.83
Working environment (clinic set up, equipment, nursing staff, etc.)	1.68	0.84
Coping with new technology (e.g. computers).	1.67	0.82
Conducting clinic.	1.66	0.80
Lack of emotional support from home, especially from spouse.	1.62	0.98
Examining patients of the opposite sex.	1.50	0.77
Taking blood samples from patients.	1.40	0.71

4.1.2. Testing the Hypotheses (Inferential Statistics)

This section of the chapter deals with those hypotheses testing possible relationships between the dependent and independent variables of this study, in order to build a base for the analysis and interpretation of data in Chapter Six.

The Background Characteristics and Their Relation to Job Satisfaction Levels

Hypothesis one stated that:

There is no statistically significant difference between doctors with different background characteristics (age, gender, religion, marital status, number of children, availability of family members in Oman for expatriates, salary, designation, qualifications, period worked in Oman, years in the current post, work experience and weekly working hours) in their job satisfaction.

Job satisfaction, the dependent variable, was categorized, as mentioned above, into two categories: satisfied and dissatisfied. The chi-square test was undertaken to determine if there was any significant difference between respondents with different background characteristics, in their levels of satisfaction. The starting point for the administration of the chi-square test was the null hypothesis of no difference related to the variable being examined.

Table 4.1.18 presents the results of the chi-square statistical procedure. The variables examined for significance were: 1) age, 2) sex, 3) religion, 4) marital status, 5) number of children, 6) presence of family (for expatriates), 7) salary, 8) designation, 9) qualifications, 10) period worked in Oman (for expatriates), 11) years at current post, 12) weekly working hours, and 13) work experience.

Table 4.1.18: Frequencies and Percentages of Satisfaction Levels in Relation to the Background Variables (Chi-Square) {Hypothesis # 1}

Background Characteristic		Satisfaction level		χ^2	p
		Satisfied N (%)	Dissatisfied N (%)		
Age	1) Young (under 40)	59(55.1)	48(44.9)	15.78	0.000*
	2) Old	100(79.4)	26(20.6)		
Sex	1) Male	115(71.0)	47(29.0)	1.63	0.201
	2) Female	45(62.5)	27(37.5)		
Religion	1) Muslim	70(60.3)	46(39.7)	6.69	0.011*
	2) Non -Muslim	89(76.1)	28(23.9)		
Marital Status	1) Single	6(37.5)	10(62.0)	7.17	0.028*
	2) Married	150(70.4)	63(29.6)		
	3) Others	4(80.0)	1(20.0)		
Number of Children	1) None	17(56.7)	13(43.3)	2.26	0.323
	2) 1-3	125(70.6)	52(29.4)		
	3) 4-6	18(66.7)	9(33.3)		
Family (expatriates)	1) In Oman	105(75.0)	35(25.0)	0.17	0.680
	2) In Home Country	22(78.6)	6(21.4)		
Salary	1) 800 O.R. or Less	55(58.5)	39(41.5)	7.11	0.029*
	2) 801-1400 O.R.	50(76.9)	15(23.1)		
	3) More than 1400	54(73.0)	20(27.0)		
Designation (Post)	1) Medical officer	44(56.4)	34 (43.6)	10.87	0.004*
	2) Specialist/ Registrar	65 (70.7)	27 (29.3)		
	3) Consultant	50 (82.0)	11 (18.0)		
Qualifications	1) M.D.(MBBS)	43(59.7)	29 (40.3)	3.75	0.153
	2) Diploma / Equivalent.	77(70.6)	32 (29.4)		
	3) Membership or higher	39 (75.0)	13 (25.0)		
Period worked in Oman (expatriates)	1) 5 years or less	58(76.3)	18(23.7)	0.89	0.642
	2) 6-10 years	39(72.2)	15(27.8)		
	3) More than 10 years	33(80.5)	8(19.5)		
Years at Current Post	1) 4 years or less	74(64.9)	40(35.1)	1.14	0.565
	2) 5-8 years	35(71.4)	14(28.6)		
	3) More than 8 years	50(71.4)	20(28.6)		
Weekly working hours	1) 35-52 hours	99(78.0)	28(22.0)	14.94	0.001*
	2) 53-86 hours	53(60.2)	35(39.8)		
	3) More than 86 hours	7(38.9.0)	11(61.1.0)		
Work experience	1) Less than 5 years	11(40.7)	16(59.3)	16.34	0.001*
	2) 5-10 years	30(68.2)	14(31.8)		
	3) 11-16 years	36(61.0)	23(39.0)		
	4) More than 16 years	81(79.4)	21(20.6)		

* Significant at $p < 0.05$

From Table 4.1.18, it is evident that seven background variables were found to show significant differences in job satisfaction. These variables were age, religion, marital status, salary, designation, weekly working hours and work experience as

explained below. However, other variables like sex, number of children, presence of family (for expatriates), period worked in Oman, years at current post and qualification were found to show no statistically significant differences in job satisfaction and therefore the null hypothesis was accepted.

Age

Table 4.1.18 above generates a chi-square value of 15.78 with a significance level (p value) of 0.000 which is less than 0.05 meaning that there is a statistically significant difference between the young (under 40) and older doctors in relation to their levels of satisfaction. Therefore, the null hypothesis was rejected. As shown in the table, 79.4% of older doctors were satisfied, while 55.1% of the young doctors were satisfied with 44.9% dissatisfied.

Religion

Table 4.1.18 above generates a chi-square value = 6.69 and p value = 0.011 indicating statistically significant difference between Muslim and non-Muslim (Christians, Hindu and others) doctors in terms of job satisfaction levels. Therefore, the null hypothesis was rejected. 76.1% of non-Muslim doctors were satisfied, while 61.3% of Muslim doctors were satisfied. This means that non-Muslim doctors were more satisfied than Muslims.

Marital Status

Table 4.1.18 produces a chi-square value = 7.17 and p value = 0.028 indicating a statistically significant difference between the marital status groups with respect to job satisfaction levels, leading to the rejection of the null hypothesis. 70.4% of the married doctors were satisfied, while 37.5% of single doctors were satisfied with the majority

(62.5%) dissatisfied. Therefore, married doctors were more satisfied than those who were unmarried.

Salary

As Table 4.1.18 shows the chi-square = 7.12 and the significance level = 0.029 which is greater than 0.05. Therefore, there was a statistically significant difference in job satisfaction between doctors of different salary levels, leading to the rejection of the null hypothesis. Those doctors with a salary = 800 O.R. or less were least satisfied with their job while those in the middle were more satisfied.

Designation

Table 4.1.18 above generates a chi-square value = 10.87 which is significant at the 0.05 level (p-value = 0.004) indicating that a significant difference exists between the designation categories in relation to job satisfaction levels. Therefore the null hypothesis was rejected. It is apparent from the table that as the level of designation increases, job satisfaction increases.

Weekly Working Hours

There was a statistically significant difference in job satisfaction (chi-square = 14.94, and p-value = 0.001.) between doctors working different weekly hours (Table 4.1.18). Therefore, the null hypothesis was rejected. As can be seen from the table, as the weekly working hours increase, job satisfaction decreases.

Work Experience

Table 4.1.18 above generates a chi-square value of 16.34 with a significance level (p value) of 0.001, which is less than 0.05, meaning that there is a statistically significant difference between doctors of different experience. Therefore, the null

hypothesis was rejected. This means that doctors' job satisfaction increases as work experience increases.

Nationality

Hypothesis two stated that:

There is no statistically significant difference between Omani doctors and non-Omani doctors with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

The t-test was used to study the difference in job satisfaction and factors (components) contributing to it between Omani and non- Omani doctors.

For research hypothesis 2, it was predicted that the responses of Omani doctors would indicate different levels of job satisfaction from expatriate doctors. This hypothesis was supported. Omani doctors had lower mean scores, indicating less satisfaction than expatriate doctors (Table 4.1.19); therefore the null hypothesis was rejected. It can be seen from Table 4.1.19, that there was a statistically significant difference between the two groups in overall job satisfaction ($t = 4.80, p < .0001$) and some of the factors affecting it. These factors were administration ($t = 2.46, p = .015$), workload ($t = 5.86, p < .0001$), and teamwork ($t = 3.77, p < .0001$). There was no statistically significant difference with regard to satisfaction with pay, professional status, and professional development; therefore, the null hypothesis for these three factors was accepted.

Table 4.1.19: Description of Satisfaction Dimensions (Mean, Standard Deviation and Degree of Freedom) by Nationality and t-Test value {Hypothesis # 2}

Factors	Omani			Non- Omani			t-Test	df	p
	N	Mean	S.D.	N	Mean	S.D.			
Pay	71*	2.37	0.85	187*	2.55	0.80.	1.61	256	.100
Professional Status	69	3.69	0.59	190	3.79	0.49	1.41	257	.160
Administration	71	2.78	0.75	192	3.04	0.77	2.46	261	.015
Workload	66	2.41	0.66	186	3.01	0.74	5.86	250	.000
Teamwork	69	3.22	0.59	187	3.53	0.57	3.77	254	.000
Professional Development	71	3.01	0.87	190	3.12	0.82	0.95	259	.344
Overall Job Satisfaction	63	3.00	0.39	171	3.29	0.42	4.80	232	.000

* Variations in numbers indicates missing data

Effect of Place of Work (Health Institution) on Job Satisfaction

Hypothesis three stated that:

There is no statistically significant difference between the doctors at different health institutions with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

Hypothesis # 3 aimed to study the effect of place of work on job satisfaction and its factors. As mentioned in Chapter Three, there were four health institutions selected for this study:

- 1) University Hospital (Sultan Qaboos University)
- 2) Al- Shatti Hospital (Private Sector)
- 3) Royal Hospital (Ministry of Health)
- 4) Health centres (Ministry of Health)

Table 4.1.20 summarises the results of One-way Analysis of Variance (ANOVA), where the place of work was the independent variable and job satisfaction scores on different satisfaction factors were the dependent variables.

Table 4.1.20 shows that the effect of place of work was significant in five out of six job satisfaction factors, $p < 0.05$. Those five factors were 1) professional status ($F = 3.34, p = .020$), 2) administration ($F = 4.63, p = .004$), 3) professional development ($F = 3.67, p = .013$), 4) workload ($F = 5.31, p = .001$) and 5) pay ($F = 11.28, p = .000$). In other words, the mean scores of the place of work in each of these five factors were not equal. Therefore the null hypothesis was rejected. Teamwork and overall job satisfaction were equally weighted by doctors working in the four health institutions and therefore the null hypothesis was accepted with regard to teamwork and overall job satisfaction.

Table 4.1.20: ANOVA Results for the Effect of Place of Work on Job Satisfaction (Hypothesis # 3)

Dependent Variables (factors)	Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F	Sig.
Professional Status	Between groups	3	2.63	0.88	3.34	.020
	Within groups	255	66.81	0.26		
	<i>Total</i>	258	69.44			
Administration	Between groups	3	7.91	2.64	4.63	.004
	Within groups	259	147.40	0.57		
	<i>Total</i>	262	155.31			
Teamwork	Between groups	3	1.54	0.51	1.53	.098
	Within groups	252	84.69	0.34		
	<i>Total</i>	255	786.23			
Professional Development	Between groups	3	7.48	2.49	3.67	.013
	Within groups	257	174.85	0.68		
	<i>Total</i>	260	182.34			
Workload	Between groups	3	8.92	2.97	5.31	.001
	Within groups	248	138.96	0.56		
	<i>Total</i>	251	147.88			
Pay	Between groups	3	20.14	6.71	11.28	.000
	Within groups	254	151.16	0.59		
	<i>Total</i>	257	171.30			
Overall Job Satisfaction	Between groups	3	1.42	0.47	2.53	.058
	Within groups	230	42.86	0.19		
	<i>Total</i>	233	44.28			

It is naturally useful to say which health institutions are responsible for these differences in job satisfaction. To be able to do this, Tukey's test was carried out. The results of this test for each of the five factors are presented separately as follows (See Appendix 16a.):

Professional Status

There was a statistically significant difference in satisfaction with professional status between the doctors working in the hospitals and those working in the health centres but no significant differences between the hospitals. Doctors in the health centres were less satisfied with this component than doctors in the other health institutions. Table 4.1.21 shows the mean scores of this component for each health institution.

Table 4.1.21: Mean Scores of Satisfaction with Professional Status for each Health Institution

Health Institution	N	Mean
University Hospital	86	3.76
Al- Shatti Hospital	21	4.00
Royal Hospital	128	3.78
Health centres	24	3.51

Administration

Tukey's test showed significant differences in satisfaction with administration between doctors working in the hospitals and those working in the health centres. Doctors of the health centres were the most satisfied with this component and this could be due to the size of the organisation. Health centres are small and staff and administration have close contact. Table 4.1.22 shows the mean scores of this component for each health institution.

Table 4.1.22: Mean Scores of Satisfaction with Administration for each Health Institution

Health Institution	N	Mean
University Hospital	88	2.91
Al- Shatti Hospital	21	3.03
Royal Hospital	129	2.90
Health centres	25	3.50

Professional Development

The result of the Tukey's test revealed a significant difference in satisfaction with professional development between doctors working in the Royal Hospital and those working in the other health institutions (University Hospital, Al Shatti Hospital and health centres). Doctors in the Royal Hospital were more satisfied with their opportunities for professional development than the rest. Table 4.1.23 shows the mean scores of this component for each health institution.

Table 4.1.23: Mean Scores of Satisfaction with Professional Development for each Health Institution

Health Institution	N	Mean
University Hospital	88	2.96
Al- Shatti Hospital	21	2.79
Royal Hospital	127	3.26
Health centres	25	2.97

Workload

Tukey's test was used to clarify the significant differences among doctors of different health institutions with regard to satisfaction with workload. There was a statistically significant difference between doctors working in Al- Shatti Hospital and those working in the other health institutions. Doctors of Al- Shatti Hospital (private sector) were much more satisfied with their workload than the doctors of the University Hospital, Royal Hospital and the health centres. Doctors of the health centres were the

most dissatisfied with this component. Table 4.1.24 shows the mean scores of this component for each health institution.

Table 4.1.24: Mean Scores of Satisfaction with Workload for each Health Institution

Health Institution	N	Mean
University Hospital	83	2.74
Al- Shatti Hospital	19	3.38
Royal Hospital	126	2.91
Health centres	24	2.56

Pay

There was a statistically significant difference in satisfaction with pay between doctors working in the University Hospital and Al- Shatti Hospital and those working in the Ministry of Health (Royal Hospital and health centres). Doctors working in the Royal Hospital and in the health centres were more dissatisfied with their pay. Table 4.1.25 shows the mean scores of this component for each health institution.

Table 4.1.25: Mean Scores of Satisfaction with Pay for each Health Institution

Health Institution	N	Mean
University Hospital	89	2.84
Al- Shatti Hospital	18	2.74
Royal Hospital	126	2.24
Health centres	25	2.44

Specialisation

Hypothesis four stated that:

There is no statistically significant difference in job satisfaction (summation of the six subscales) between the doctors in different specialisation.

Because there were more than two categories of specialisation, analysis of variance was the statistical method of choice, as it examines categories for mean differences for job satisfaction.

Table 4.1.26 shows the results of the ANOVA test of job satisfaction of doctors by specialisation groups. This table shows no significant difference in job satisfaction ($F = 1.50$, $p > 0.05$) between doctors with different specialisations. Therefore the null hypothesis was accepted.

Table 4.1.26: Analysis of Variance of Job Satisfaction of Doctors by Specialisations (Hypothesis # 4)

Sources of Variation	Sum of Squares	Degree of Freedom	Mean Squares	F	Sig.
Between Groups (Explained)	2.27	8	0.28	1.50	.157
Within Groups (Residual)	41.89	222	0.19		
Total	44.16	230			

Job- Induced Stress and Job Satisfaction

Hypothesis five stated that:

There is no significant correlation between job satisfaction (overall job satisfaction and satisfaction with each component) and job-induced stress (summation of all items).

Table 4.1.27 shows the results of Spearman's rho correlation between overall satisfaction and stress and between satisfaction with each component of job satisfaction and stress for all doctors working in the hospitals (Royal Hospital, University Hospital, and Al-Shatti Hospital). Doctors of the health centres were not considered because the stress scales were not in general applicable, leaving too few cases sensibly to compute correlations.

There was no statistically significant correlation between satisfaction with pay and job-induced stress (- 0.14, $p > 0.05$). Therefore the null hypothesis was accepted for this component.

There were weak negative correlations between job-induced stress and satisfaction with professional status (- 0.21), satisfaction with professional development (- 0.27), satisfaction with administration (- 0.35) and satisfaction with teamwork (- 0.32). These correlations were statistically significant at $p < 0.05$. The null hypothesis was therefore rejected. This means that satisfaction with these components can be significantly and inversely affected by the job-induced stress.

As can be seen from Table 4.1.27, there was a moderate negative correlation (- 0.53) between satisfaction with workload and stress. This correlation was statistically significant at $p < 0.05$. Therefore, the null hypothesis was rejected. This means that the strongest negative relationship was between stress and workload.

Lastly, Table 4.1.27 shows the correlation between overall job satisfaction and job-induced stress. This correlation was modest (- 0.48) and statistically significant. Therefore, the null hypothesis was rejected. The negative relationship between these two variables indicates that as the level of stress increases, there tends to be a decrease in the level of job satisfaction. Spearman's rho correlations were computed for Omani and non-Omani doctors separately. Similar patterns of correlations were observed for both groups and were similar to that for the combined group.

Table 4.1.27: Correlation of Overall Job Satisfaction and Satisfaction with each Component Against Job- Induced Stress (N¹ = 184)

Job Satisfaction Scale	Spearman's rho Correlation	p
Pay	- 0.14	.061
Professional Status	- 0.21	.000
Professional Development	- 0.27	.001
Administration	- 0.35	.000
Workload	- 0.53	.000
Teamwork	- 0.32	.000
Overall job satisfaction	- 0.48	.000

Regression and Multivariate Analysis

While bivariate analyses are useful in beginning to understand the relationship between the independent variables and job satisfaction, a better reflection of reality is a multivariate approach. Bivariate analyses do not account for the fact that, in social reality, two concepts (the criterion and the predictor) are not operating in a vacuum. Regression analysis, in the form of multiple regression, is regarded as the most widely used method for conducting multivariate analysis, particularly when more than three variables are involved (Bryman and Cramer, 1997). The main aim of this section is to examine the possible contributions of the independent variables (background and personal variables and job-induced stress) to job satisfaction. However, the background and personal variables (age, sex, religion, marital status, number of children, availability of family member for expatriates, salary, post, qualification, period worked in Oman for expatriates, years at current post, weekly working hours, work experience, nationality and type of health institution) were of different types: nominal, and ordinal. *Therefore,*

¹ The respondents were given the option to answer "not applicable". This led to a situation where only 184 of the respondents gave valid answers

these variables were recoded into dummy or indicator variables, so that each level of the nominal variables became a flag variable. The relative importance of the independent variables to the dependent variables is measured by R^2 (the coefficient of determination), which represents the proportion of the variance in the dependent variable accounted for by the variation of the independent variables (Kennedy, 1998). It is often used as an indication of how well the model implied by the regression equation fits the data. For example, if R^2 of the regression model is 0.49, it can be said that the independent variables entered into the regression equation are providing an explanation of 49 percent of the variance in the dependent variable. In the computation of the multiple regression equation, the researcher employed a *stepwise* procedure to decide the sequence of the entry of variables into the equation. The *stepwise* selection of independent variables is the most commonly used method in testing regression (Bryman and Cramer, 1997). It is a combination of forward and backward selection. With this procedure, variables are entered in steps, with the variable that exhibits the highest correlation with the dependent variable being entered at the first step, followed by the variable that exhibits the next highest correlation with the dependent variable; and so on, until the regression procedure terminates. The procedure terminates when independent variables fail to conform to the criterion for inclusion² operated by the stepwise procedure (Bryman and Cramer, 1997).

Before considering the results of the regression model, the F- ratio test should be inspected first. This test is used to examine the null hypothesis that *the multiple correlation is zero in the population from which the sample was drawn*. This means that the multiple R (correlation between the dependent variable and the independent

² The criterion for entry is set at $p = 0.05$. Therefore, any variable with a p-value greater than 0.05 will be excluded from the regression equation.

variables produced by the regression analysis) is equal to zero. Table 4.1.28 shows the result of the regression analysis of the independent variables on job satisfaction. There are two variables that are significant in the two steps of model building, as shown by the F-value: job-induced stress and salary (salary of 800 Omani Riyals or less). The null hypotheses for these two independent variables are that their regression coefficients are equal to zero. When these hypotheses are rejected, the relationship of each variable with job satisfaction is different from zero. The probability that these variables have an impact on job satisfaction is notable, and this would be confirmed by drawing other samples from the same population from which this group was drawn. There are no other direct relationships with job satisfaction in this sample.

Table 4.1.28: Steps of the Multiple Regression Results (N = 179)

Independent Variable	Steps	R	R ²	F
Job-induced stress	1	0.38	0.15	19.71 P< 0.0005
Salary level (800 OR or less)	2	0.46	0.20	15.18 P< 0.0005

Table 4.1.28 provides information about what happens as each variable is entered in the equation, which is demonstrated by the steps from 1 to 2. As it can be seen, the multiple R (R²) was 0.15 when only job-induced stress was included in the regression equation. When lowest salary level (salary of 800 Omani Riyals or less) was entered, the R² became 0.20, suggesting that this variable added 0.05 (0.20-0.15) to R². The procedure was terminated after step 2. Step 2 provides the final figures for the equation as a whole. This shows that R² once job-induced stress and lowest salary level are entered into the equation is 0.20, suggesting that 20% of the variation in job satisfaction is explained by these two variables alone. The other independent variables did not enter the regression equation because they failed to conform to the criterion for inclusion set

by the stepwise procedure. In fact, these variables, when the two variables (job-induced stress and lowest salary level) are controlled, they do not have enough impact on job satisfaction to escape the program's exclusion criterion.

Another important statistical test that should be consulted in regression analysis is the t-value produced in Table 4.1.29, which indicates the statistical significance of individual regression coefficients (Beta). As can be seen from Table 4.1.29, the coefficients of the two independent variables in the model were statistically significant (p- values less than 0.05). This suggests that the calculated coefficients (Beta) for each of the two independent variables are unlikely to be zero in the population.

Table 4.1.29: Stepwise Multiple Regression Results at the Last Step (N = 179)

Independent Variable	Unstandardised Coefficients (B)	Standardised Coefficients (Beta)	T	Tolerance
Job-Induced Stress	-0.362	-0.345	4.11 P<0.05	0.962
Salary Level (800 OR or less)	-0.229	-0.255	3.04 P<0.05	0.962
(Constant)	4.05	-	23.49 P<0.05	-

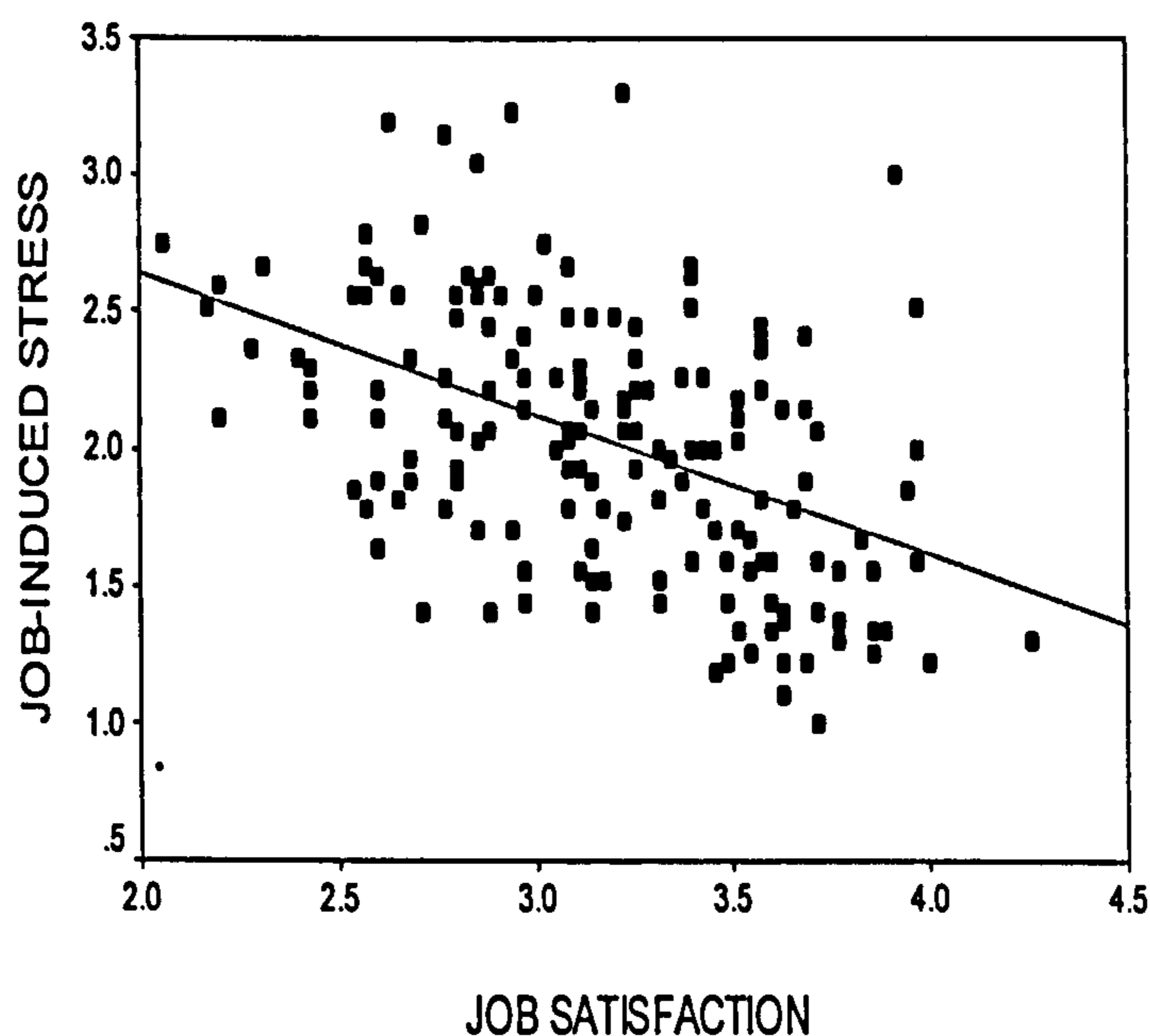
The last column (tolerance) in Table 4.1.29 provides information about multicollinearity, which refers to the situation in which there is a high multiple correlation when one independent variable is regressed on the others (intercorrelation among independent variables) (Norusis, 1993). If two independent variables are intercorrelated, they provide very similar information, and it is difficult to determine the contribution of each variable to the dependent variable. The tolerance of a variable is a commonly used measure of multicollinearity (Norusis, 1993). When the tolerance is low (close to zero), the multiple correlation is high and there is the possibility of multicollinearity which renders the results untrustworthy (Bryman and Cramer, 1997).

The tolerance for the two independent variables included in the model of this study is high (close to one) suggesting that multicollinearity is unlikely and the results are trustworthy.

Interpretation of the unstandardised regression coefficients (B) gives the effect on job satisfaction of increasing the independent variable in question by one unit, while statistically holding constant all of the other independent variables. For every one unit increase in doctors' job-induced stress score, there is a 0.362 unit decrease in their job satisfaction score (see Figure 4.1.1). Finally, doctors with the lowest salary level were more dissatisfied.

Figure 4.1.1

Scatterplot: Job satisfaction and job-induced stress (doctors)



Standardised regression coefficients (Betas) represent the relative importance of the independent variables to understanding variation in job satisfaction. These are standardised scores, meaning that each has been converted into units of standard deviation. This allows for the direct comparison between variables with different units of measure, as they are placed on a common scale. The Betas show that job-induced

stress (Beta = -0.345) the most important independent variable in the model for understanding job satisfaction.

4.1.3. Content Analysis of the Open-Ended Questions

The final page of the survey instrument contained two open-ended questions (see Appendixes 7). The first question invited respondents' comments about the perception of any issues associated with their job within their hospital that concerned them and contributed to their dissatisfaction. The second question asked respondents to comment on any issues associated with their job within their hospital that pleased them.

In total, 136 questionnaires (52 % of the returned questionnaires) contained responses to the questions, with 85 (63 %) of the respondents providing an answer to both questions. The first question received comments from 115 (84.5%) respondents, while 106 (78%) respondents answered the second question.

Content analysis was performed for the responses given to these questions. To be able to do this, the researcher firstly selected randomly twenty forms to identify the common themes or factors for each question. Several themes and sub-themes (factors) were identified for question one (see Table 4.1.30) and for question two (see Table 4.1.31). Secondly, the factors for each question were entered into the SPSS program. "Yes" was used as a "code" if the respondent gave comment(s) regarding that factor and "No" was used as a "code" if the respondent did not comment on that factor. The "yes" responses for each factor were considered in calculating the percentage of respondents.

The responses to the first question indicated several factors that significantly contributed to the dissatisfaction of doctors with their job in their hospitals or health centres. These factors are displayed in Table 4.1.30 below:

Table 4.1.30: Sources of Job Dissatisfaction (N = 115)

Main Themes (factors)	Sub-Themes	Number of Respondents*	%
Work-load	1) Shortage of staff	38	33.0
	2) On call duties	15	13.0
Administration	1) Management style	25	21.6
	2) Organisation of services	15	13.0
	3) Communication	12	10.4
Promotion	--	42	36.5
Pay	--	27	23.5
Professional Development	--	24	21.0
Job Security	--	9	7.8

- Each respondent provided comments for more than one factor

About fifty-three (46.0%) of the doctors who responded to question one centred their comments upon the workload as a major cause of job dissatisfaction. These responses showed that workload is a function of two main factors: shortage of staff and scheduling and duty rosters.

Thirty-eight respondents (33.0%) stated that their workload results from shortage of staff, which may have negative implications for the quality of care, especially when too many patients are seen in a short time.

“If the workload was less, maybe we can work in a better way - qualitywise...” (A&E-doctor -Royal Hospital).

“Inadequate staffing in the clinics results in patients' dissatisfaction and poor institutional image” (Consultant Physician- SQUH).

“Availability of doctors and staff is less which may have negative effects on doctors and patients....” (Cardiothoracic Surgeon- Royal Hospital).

“The lack of some important specialties needed to work in a team; (for example speech therapy)...” (Psychiatrist- SQUH).

Further anxiety surrounded the impact of inadequate staff on the wellbeing of doctors.

“Failure to anticipate the looming shortage of doctors, as it is necessary to maintain a healthy doctor” ... (Paediatrician – SQUH).

The extent of this problem prompted one respondent to say:

“The doctors should not be responsible for any medical mistake that may occur because they are overworked...” (Gynecologist- Royal Hospital).

Others felt that shortage of staff could negatively affect the hospital’s teaching activities. Both Sultan Qaboos University Hospital and Royal Hospital are recognised teaching centres for medical students and they have postgraduate programmes for doctors. Teaching and training activities could be jeopardised by the heavy workload because little time is devoted to instruction and training.

“Inadequate staffing resulting in interference of patient care and teaching activities. The same reason for lack of time for research activities...” (Consultant Physician- SQUH).

Ability to delegate responsibility was also found to contribute to workload. The ability to delegate tasks was limited by lack of support staff.

“In our hospital, especially the ophthalmology department and certain other departments are understaffed, leading to heavy workload and inability to distribute work, we have to do very close night duties...” (Ophthalmologist- SQUH).

Another aspect of heavy workload is on call duties (13% of respondents). In both University Hospital and Royal Hospital, on call duty is twelve hours that start at the end of a working day and end at the beginning of the next working day. This requires the doctor to work a thirty-six hour shift, because he or she cannot take off the day after a night on call. This is a source of extreme job dissatisfaction amongst doctors in both hospitals.

“We have prolonged tough duty hours...” (Physician - Royal Hospital).

“Post duty doctors should get the morning off as they are exhausted and tired, and this will affect the proper management and care of patients. On call hours in C.C.U (Cardiac Care Unit) should be a maximum of 12 hours instead of 36 hours...” (Cardiologist - Royal Hospital).

The second most dissatisfying factor among doctors was administration. Fifty-two respondents (45.0%) were unhappy about various aspects of administration. These

aspects were management style, organisation of services and communication, which were identified from emerging themes. Doctors of the University Hospital and Al-Shatti Hospital were more dissatisfied with their administrations.

Twenty-five (21.6%) respondents disliked the management style of their hospital administration. The management style was authoritarian rather than participatory.

“Management structure is bureaucratised and insufficiently decentralised...” (A&E Doctor-SQUH)

“Complete lack of direction and planning...” (Physician - Royal Hospital).

“Sometimes the benefit of the patient is not going with some hospital policies...” (Urologist- SQUH).

There was resentment of the way in which some doctors felt that they were treated, expressed as follows:

“Administration not recognizing the true quality of people who care, but glorifying some who do not deserve it, because of their race or influence...” (Anesthetist- University Hospital).

“Differentiation of doctors, including salaries based on nationality, rather than by qualification and experience...” (Doctor- Al Shatti Hospital).

Doctors felt that the management style was inadequate in resolving conflict situations between staff.

“Immature management of conflicts situations...” (Doctor- Al Shatti Hospital).

“Lack of disciplinary action on ‘stormy petrels’ among doctors, because of their race”... (Al Shatti Hospital).

Also, they felt that administrators did not understand the nature of doctors' work and contradicted their medical decisions and threatened their sense of clinical freedom.

“Doctors have no say in the hospital and there is too much administrative interference with our job. Patients and relatives are becoming increasingly demanding and have easy access to higher officials for complaint...” (Pediatric Surgeon - Royal Hospital).

Fifteen respondents (13.0%) were dissatisfied with the organisation of health services at the department level or at the hospital level

“I expected the organization to be much more organized than it is at present...” (Doctor- Al Shatti Hospital).

The hospitals included in this study seem not yet to have established an effective appointment system in the outpatient clinics.

“The outpatient clinic organization concerns me; we have a heavy patient load and over-utilisation by the public, the appointment system not working well...” (Doctor- SQUH).

One source of dissatisfaction was when a doctor could not do his work because of lack of equipment that the administration did not secure:

“Delay in obtaining equipment... I feel there is a lack of understanding by the people in the administration of my needs as a doctor...” (Doctor- SQUH).

Twelve respondents (10.4%) were dissatisfied because of lack of effective communication with the administration. This process of communication lacks one of the essentials for effective communication: feedback.

“There is no appreciation of your work or acknowledgement of your skills...” (Physician - Royal Hospital).

“At certain times lack of feedback on issues makes it difficult to know what management is doing or how it is responding to suggestions or questions about various concerns of staff etc...” (Doctor- Al Shatti Hospital).

Promotion was the third dissatisfying factor for doctors. It was a major concern for doctors working in the Royal Hospital and the health centres. Forty-two respondents (36.5%) stated their frustration due to lack of promotion.

“For 8 years in one grade and no promotion...” (Radiologist -Royal Hospital)

“No appreciation of the work done during all these years as there are no promotions or increase in salary...” (Cardiothoracic Surgeon- Royal Hospital).

“Doctors are working for 10 years in the same post without promotion...” (Obstetrician-SQUH).

Qualification is the only criterion for promotion and no importance is given to years of experience and hard work.

“The hospital promotion board gives more emphasis to certificates rather than years of work experience and good performance at work for promotion...” (A&E doctor-Royal Hospital).

Doctors also felt inequity in achieving promotion.

“People having the same qualification or experience are given different grade for no apparent reasons. Hard work is badly appreciated....” (A&E doctor- Royal Hospital).

“I have had experience, good training and qualification from abroad in my specialty but I waited for four years to get my designation. Contrary to other Gulf Countries, there are obstacles for locals to get their designations...” (Omani doctor -Royal Hospital).

The extent of this problem prompted one respondent to say:

“Slowness and deficiency in staff promotion with promotion of inefficient staff according to ‘WASTA’ (indirect means)...” (Paediatrician- SQUH).

Twenty-seven (23.5%) doctors expressed dissatisfaction with pay. Doctors felt that their salary scales do not reflect the extended years of training and education they have to go through.

“In spite of well qualified doctors, recognition in terms of salary and promotion are lacking...” (Pediatrician - Royal Hospital).

“A hospital where you have worked more than 3 years as a registrar but are paid as a medical officer...” (Surgeon - Royal Hospital).

This feeling was stronger among doctors working in the Ministry of Health (Royal Hospital and the health centres) who receive less pay than doctors working in the other hospitals involved in the study. There was also a wide feeling of inequity in pay within one organisation, where Western doctors receive higher salaries and between organisations.

“There should not be disparity in the salary structure between those with equal qualification when the nationality differs....” (Doctor- Al Shatti Hospital)

“Our pay is poor in comparison to the pay of doctors in SQU Hospital...”(Anesthetist-Royal Hospital).

Twenty-four (21.0%) junior doctors felt that opportunities for professional development in terms of continuous medical education (CME), postgraduate specialism training and research were inadequate.

“I'm dissatisfied with the amount of training we receive as postgraduate doctors in surgery, I feel there is no well-structured programme for us...” (Omani doctor- Royal Hospital).

Also, expatriate junior doctors expressed the same feeling:

“For expatriate doctors, no time or activities are provided for professional growth, e.g. attending medical conferences...” (A&E doctor-SQUH).

There was apparent conflict with the administration regarding research:

“Some lack of understanding and knowledge by the administration of the importance of research and international contacts...” (Family physician- SQUH).

A small number (nine respondents) of expatriate doctors expressed their dissatisfaction with job security. They felt insecure in their jobs, as their contracts could be terminated at any time:

“Job security is a stressful issue. One never knows when his or her contract will be terminated. He or she can not plan their future regarding children's education and other issues....” (Paediatrician- SQUH).

Analysis of the second question showed a group of factors that are considered by the doctors in this study as major sources of their job satisfaction. See Table 4.1.31 below:

Table 4.1.31: Sources of Job Satisfaction (N = 106)

Main Themes (factors)	Sub-Themes	Number of Respondents*	%
Interaction at work	1) With colleagues	99	93.4
	2) With patients	48	45.3
Working conditions	--	33	31.1
Teaching medical students	--	20	19.0
Others	--	18	17.0

* Each respondent provided comments for more than one factor

The most important factor that pleased doctors in all hospitals and health centres was their relationship with colleagues and patients. Ninety-nine respondents (93.4%) expressed the importance to them of collegial relationships. This resulted from their desire to have a tension free and pleasant work environment.

“Our hospital is very homely and friendly to work at...” (Doctor- Al Shatti Hospital).

“General family atmosphere here...” (Doctor- Health Centres).

“We have a cordial atmosphere...” (Physician- SQUH).

Additionally, this relationship with colleagues was not based on nationality or sex; rather it was individual, personal qualities that seem to matter to respondents.

“We have a multicultural pleasant working environment. There are doctors from different parts of the world here but we are happy...” (Surgeon- SQUH).

“It is so pleasing to work as a team with the doctors and irrespective of the nationality, either Omani or non- Omani...” (Paediatrician- Royal Hospital).

This feeling also extended to other professionals in the team:

“Very co-operative and responsive behaviour of nurses...2 (Cardiologist- Royal Hospital).

Also, doctors felt that support from colleagues and heads of departments in terms of recognition, and appreciation of their efforts was a source of satisfaction to them.

“Our head of department...is very much concerned about our wellbeing, so we can forget all pains. That is why we are still here!!...” (Paediatrician- Royal Hospital).

Forty-eight respondents (45.3%) mentioned that their relationship with their patients gives them a great feeling of satisfaction. This feeling was a reflection of the attitude of patients towards the doctors. Doctors derived pleasure and satisfaction from the patients' appreciation, trust and respect.

“I have a great sense of satisfaction because of patients' appreciation of our services...” (Omani physician- SQUH).

“Reasonably behaved patients and their families (if handled properly) pleased me...” (Paediatrician-SQUH).

“Friendly patients...” (Surgeon- Royal Hospital).

“Our patients are so co-operative and kind...” (Omani physician- Royal Hospital).

Thirty-three of respondents (31.1%) were satisfied with the working conditions in terms of the hospital building, cleanliness, location of the hospital, and facilities, medical and non- medical. This source of satisfaction was important for the doctors in Royal Hospital, SQUH and Al- Shatti Hospital.

“What pleases me most is the cleanliness of this hospital...” (Cardiothoracic surgeon- Royal Hospital).

“Location of the hospital (seaside) is one of the issues that pleases me...” (Doctor- Al Shatti Hospital).

Twenty respondents (19.0%) from the teaching hospitals (SQUH & Royal Hospital) expressed their feeling of satisfaction as clinical educators. Some doctors liked serving as a role model and mentor and watching students improve their skills. Others gained satisfaction from sharing their clinical experiences with students and residents.

“Interesting teaching opportunities and generally well-motivated and committed undergraduates and post graduates...” (A&E Doctor- SQUH).

“Good opportunity to teach and train Omani students who are very obedient, intelligent and attentive...” (Paediatrician- Royal hospital).

Eighteen respondents (17.0%) were pleased with other issues in their organisations, particularly patient care.

“High quality of inpatient nursing care...” (doctor Al Shatti Hospital).

“The quality of care given to our patients pleases me...” (Surgeon- SQUH).

4.2. Section Two- Nurses' Survey

The purpose of this section is to present the results obtained from the nurses' survey. Firstly, descriptive statistics (frequencies, percentages, means, standard

deviation, and so on) are used to describe the sample characteristics, including the return rate and the demographic variables of the respondents and to provide descriptive information about the key research variables in the study. The key research variables were the components of job satisfaction (pay, professional satisfaction, workload, nurse-nurse relationship, nurse- doctor relationship, and nurse-patient relationship), overall job satisfaction and job-related stress. Means and standard deviations are used to describe the sample in these terms. Secondly, inferential statistics are used to test the research hypotheses. Finally, a report of the content analysis of the two open-ended questions on the last page of the survey is presented.

4.2.1. Descriptive Statistics

This section is divided into three parts. The first part deals with the description of the sample obtained and the demographic details of the respondents. The second part presents the mean scores and standard deviations of each component of job satisfaction and also presents the mean scores and standard deviations of the items comprising these components. The third part deals with the mean scores and standard deviations of the items of the job-related stress scale.

4.2.1.1. Description of the Sample Obtained: Demographic Details of Respondents

Return rate

Questionnaire packets were distributed to 467 nurses working in the selected hospitals and health centres in Muscat region. Completed questionnaires were received from 371 nurses, a response rate of 79.4%. The response rate according to each health institution is displayed in Table 4.2.1 below:

Table 4.2.1: Response Rate from each Health Institution

Health Institution	Sample	Returned	Response Rate
Royal Hospital	273	236	86.4
University Hospital	123	77	62.6
Al- Shatti Hospital	32	27	84.4
Health Centers	39	31	79.5

Age

Part A of Table 4.2.2 represents the distribution of respondents by age. The table shows that 98 (26.4%) of the respondents were between 20-30 years of age, 185 (49.9%) between 31-40 years, 76 (20.5%) between 41-50 years and 12 (3.2%) were 51 years or older. It appears from the table that the majority (49.9%) of respondents were in the age group 31-40.

Sex

The sample was predominantly female (94%), reflecting the national distribution overall within nursing (see Table 4.2.2, Part B).

Nationality

Part C of Table 4.2.2 represents the distribution of nurses by nationality: Omani and non-Omani. There was no specification of nationality for non-Omanis for confidentiality reasons. The table shows that 63 (17%) of the respondents were Omani and 303 (83%) were non-Omani. As it is obvious from the table, the majority of nurses were expatriates. On the national level, Omani nurses represent 26% of the nursing workforce in the Ministry of Health (MOH, 1998).

Religion

Part D of Table 4.2.2 represents the religions of the respondents. The table shows that 84 (22.6%) of the respondents were Muslims, 256 (69.0%) were Christians, 20 (5.4%) were Hindu, and 11 (3.0%) followed other religions. It appears from the table that the majority (69.0%) of the respondents (nurses) were Christians.

Marital Status and Number of Children

Part E of Table 4.2.2 represents marital status. The table shows that 68 (18.3%) of the respondents were single, 285 (78.8) were married and 18 (4.9%) represented the other groups (divorced, widowed, and separated). The majority of nurses in this sample (78.8%) were married.

Part F of the table shows that 97 (26.4%) of nurses in this sample had no children, 245 (66.8%) had 1-3 children, 22 (6.0%) had 4-6 children and only three (0.80%) had more than 6 children.

Availability of Family Members in Oman

Part G of Table 4.2.2 shows that 166 (55.3%) of the expatriate nurses in this study were accompanied by members of their families and 134 (44.7) had left their families in their home country.

Table 4.2.2: Distribution of Respondents by Age group, Sex, Nationality, Religion, Marital Status, Number of Children and Availability of Family Members

A)	Age group / years	N	%
1.	20-30 years	98	26.4
2.	31-40 years	185	49.9
3.	41-50 years	76	20.5
4.	51 years or more	12	3.2
	<i>Total:</i>	<i>371</i>	<i>100.0</i>
B)	Sex		
1.	Male	22	5.9
2.	Female	349	94.1
	<i>Total:</i>	<i>371</i>	<i>100.0</i>
C)	Nationality		
1.	Omani	63	17.0
2.	Non- Omani	308	83
	<i>Total:</i>	<i>371</i>	<i>100.0</i>
D)	Religion		
1.	Muslim	84	22.6
2.	Christian	256	69.0
3.	Hindu	20	5.4
4.	Others	11	3.0
	<i>Total:</i>	<i>371</i>	<i>100.0</i>
E)	Marital Status		
1.	Single	68	18.3
2.	Married	285	76.8
3.	Others	18	4.9
	<i>Total:</i>	<i>371</i>	<i>100.0</i>
F)	Number of Children		
1.	None	97	26.4
2.	1-3	245	66.8
3.	4-6	22	6.0
4.	More than 6	3	0.8
	<i>Total:</i>	<i>367</i>	<i>100.0</i>
G)	Availability of Family Members in Oman (non-Omani)		
1.	Available	166	55.3
2.	Not available	134	44.7
	<i>Total:</i>	<i>300</i>	<i>100.0</i>

Monthly Salary

Table 4.2.3 represents the distribution of the respondents by monthly salary. The table shows that 25 (6.8%) of the respondents had a monthly salary of less than 200 OR, 237 (64.4%) had earned between 201-400 OR, 61 (16.6%) had a monthly salary ranging

between 401-600 OR, and 45 (12.2%) were paid more than 600 OR. It appears from the table that majority of respondents (64.4%) had a salary ranging between 201-400 OR.

Table 4.2.3: Distribution of Respondents by Monthly Salary

	Monthly Salary (in Omani Rival. OR)	N	%
1.	<200 OR	25	6.8
2.	201-400 OR	237	64.4
3.	401-600 OR	61	16.6
4.	More than 600 OR	45	12.2
	<i>Total:</i>	368	100.0

Table 4.2.4 shows the respondents' distribution by monthly salary in each health institution. In the University hospital, 45.5% of the respondents had a monthly salary of about 400 Omani Riyals or less, 27.3% had a salary between 401 to 600 OR and 27.3% had a salary of more than 600 OR. However, the majority of nurses (81.6%) in Royal Hospital had a salary of around 400 OR or less and only 7.7% earned more than 600 OR. In the Health Centres, 51.6% of the respondents had a salary of about 400 OR or less, and the rest earned between 401 to 600 OR; nobody's salary exceeded 600 OR. 77.8% of the respondents in the private hospital had a salary of 400 OR or less and 22.2% had a salary of more than 600 OR; those might be Western nurses

Table 4.2.4: Comparison of Nurses' Monthly Salary between Health Institutions

Health Institution	N	Monthly Salary in Omani Riyals		
		< 400	401-600	> 600
University hospital (Sultan Qaboos University)	77	35 (45.4%)	21 (27.3%)	21(27.3%)
Royal hospital (Ministry of Health)	233	190 (81.6%)	25 (10.7%)	18 (7.7%)
Health Centres (Ministry of Health)	31	16 (51.6%)	15 (48.4%)	0
Al- Shatti hospital (Private Sector)	27	21 (77.8%)	0	6 (22.2%)

Practice Area

Table 4.2.5 shows that majority of respondents (46.6%) were working in the wards. 58 (15.7%) were working in the out patient departments, 60 (16.3%) working in the critical care units, 32 (8.7%) working in the operating theatre, 22 (6.0%) working in A&E and 25 (6.8%) working in the nursing administration.

Table 4.2.5: Distribution of Respondents by Practice Area

Practice Area	N	%
Wards	172	46.6
Out patient department (OPD)	58	15.7
Critical care units (intensive care, cardiac care, special care baby unit)	60	16.3
Operating theatre (OT)	32	8.7
Accident & Emergency (A&E)	22	6.0
Nursing administration	25	6.8
<i>Total:</i>	<i>369</i>	<i>100.0</i>

Working with In-Patient (Wards)

Table 4.2.6 represents the distribution of respondents by wards. The table shows that 46 (26.7%) of the nurses in this sample were working in medical wards, 29 (16.9%) working in surgical wards, 27 (15.7%) working in obstetrics and gynaecology wards, 44 (25.6%) in paediatric wards and 26 (15.2%) were working in other wards.

Table 4.2.6: Distribution of Respondents by Wards

Wards	N	%
Medical wards	46	26.7
Surgical wards	29	16.9
Obstetrics and gynaecology wards	27	15.7
Paediatric wards	44	25.6
Other wards (e.g. VIP wards)	26	15.2
<i>Total:</i>	<i>172</i>	<i>100.0</i>

Designation (Post)

Table 4.2.7 represents the distribution of respondents by designation. The table shows that 260 (70.3%) of the nurses in this study were staff nurses, and 110 (29.7%) were senior nurses. Staff nurses were the majority (70.3%) reflecting the normal distribution of nurses in Omani hospitals.

Table 4.2.7: Distribution of Respondents by Designation

Designation	N	%
Staff nurse	260	70.3
Senior nurse	110	29.7
<i>Total:</i>	<i>370</i>	<i>100.0</i>

Highest Degree

Table 4.2.8 represents the distribution of respondents by highest degree or qualification. The table shows that 261 (70.4%) of nurses in the sample had a diploma in nursing, 90 (24.3%) had a bachelor degree and 20 (5.4%) had a postgraduate degree.

Table 4.2.8: Distribution of Respondents by Highest Degree

Highest Degree	N	%
Diploma in nursing (or equivalent)	261	70.4
Bachelor in nursing (or equivalent)	90	24.3
Postgraduate degree	20	5.4
<i>Total:</i>	<i>371</i>	<i>100.0</i>

Shift Pattern

Table 4.2.9 represents the distribution of respondents by shift pattern. The majority (73.3%) had mixed duty (rotating shift), 91 (24.5%) had day duty only, three (0.80%) had night duty only, and five (1.3%) had another type of duty.

Table 4.2.9: Distribution of Respondents by Shift Pattern

Shift Pattern	N	%
Day duty	91	24.5
Night duty	3	0.8
Mixed duty	272	73.3
Other	5	1.3
<i>Total:</i>	<i>371</i>	<i>100.0</i>

Years in the Present Work Position

Part A of Table 4.2.10 shows the distribution of respondents by number of years in the present work position. The majority of nurses (47.0%) had been in their current post for more than eight years, 64 (17.4%) from four to eight years, 104 (28.3%) from one to four years, and 27 (7.3%) for less than one year.

Years Worked in Oman (for Non-Omanis)

Part B of Table 4.2.10 represents the distribution of non- Omani respondents by number of years worked in Oman. The table shows that 21 (6.9%) of nurses had been in Oman for less than one year, 58 (17.5%) from one to three years, 68 (22.4%) for four to seven years, 73 (24.1%) for eight to eleven years and 88 (29.0%) for more than 11 years.

Work Experience

Part C of Table 4.2.10 shows the distribution of respondents by work experience. The table shows that 51 (13.8%) had less than five years work experience, 85 (23.0%) from five to ten years, 130 (35.2%) from 11 to 16 years, 74 (20.1%) from 17 to 22 years and 29 (7.9%) had more than 22 years work experience.

Table 4.2.10: Distribution of Respondents by Years in the Present Work Position, Years Worked in Oman and Work Experience

A)	Years in the Present Work Position	N	%
1.	< 1 year	27	7.3
2.	1-4 years	104	28.3
3.	5-8 years	64	17.4
4.	More than 8 years	173	47.0
	<i>Total:</i>	<i>368</i>	<i>100.0</i>
B)	Years Worked in Oman (for Non- Omanis)		
1.	< 1 year	21	6.9
2.	1-3 years	53	17.5
3.	4-7 years	68	22.4
4.	8-11 years	73	24.1
5.	More than 11 years	88	29.0
	<i>Total:</i>	<i>303</i>	<i>100.0</i>
C)	Work Experience		
1.	< 5 years	51	13.8
2.	5-10 years	85	23.0
3.	11-16 years	130	35.2
4.	17-22 years	74	20.1
5.	More than 22 years	29	7.9
	<i>Total:</i>	<i>369</i>	<i>100.0</i>

4.2.1.2 Job Satisfaction Profile

Part II of the questionnaire contained a measure of job satisfaction. Factor analysis produced 36 items which measures respondents' current level of job satisfaction in terms of six factors (components). These factors were pay, professional satisfaction, workload, nurse-nurse relationship, nurse-doctor relationship, and nurse-patient relationship. For the analysis methods used in this section see section 4.1.1.2.

The Level of Job Satisfaction among the Study Sample

Job satisfaction was categorised into two levels as follows:

<u>Satisfaction level</u>	<u>Mean scores/ out of 5 points</u>
1) Satisfied	3.00 and more
2) Dissatisfied	below 3.00

Table 4.2.11 shows that the majority 231 (73.6%) of the respondents (nurses) were satisfied with their job with a mean score of 3.40. The dissatisfied group was composed of 83 respondents (26.4%) with a mean score of 2.73.

Table 4.2.11: Classification of Respondents by Satisfaction Levels

Satisfaction Level	N	%	Mean	S.D
1) Satisfied	231	73.6	3.40	0.26
2) Dissatisfied	83	26.4	2.73	0.24

Overall Job Satisfaction

Table 4.2.12: Mean Total Scores for Job Satisfaction Components and Overall Job Satisfaction Ranked from Most Satisfied to Least Satisfied

Facet (Component)	N	Mean (Range 1-5)	S.D
Professional Satisfaction	354*	3.69	0.51
Satisfaction with Nurse-Nurse Relationship	346	3.42	0.53
Satisfaction with Nurse-Patient Relationship	358	3.25	0.61
Satisfaction with Nurse- Doctor Relationship	362	3.24	0.75
Satisfaction with Pay	362	2.66	0.80
Satisfaction with Workload	354	2.47	0.60
Overall Satisfaction	314	3.21	0.39

*Variations in numbers are due to missing data

The overall mean level of satisfaction of the respondents was 3.21 on a scale of 1 to 5, indicating a moderate level of job satisfaction. Table 4.2.12 above shows the mean scores for each of the components of job satisfaction. The respondents were moderately satisfied with their professional status and with their interaction at work and they were dissatisfied with their pay and workload.

Professional Satisfaction

The component mean score for "professional satisfaction" was $M = 3.69$ which indicates satisfaction. Table 4.2.13 shows the item mean and standard deviation scores obtained for this component. Nurses in this sample appeared to be satisfied with their professional status. Items 27, 32, and 38 highlight a general agreement that nursing is meaningful and challenging. Also, it is important to mention that nurses were satisfied with the extent to which they could use their skills (item 5). Additionally, they felt adequately trained to provide the care required in their units. They were satisfied with the training activities and in-service education available for them in their organisations (item 30) and with opportunities for professional growth and development (item 28). They were moderately satisfied with the opportunities available for them to attend courses outside their organisations (item 34).

Table 4.2.13: Item Mean and Standard Deviation Scores for Professional Satisfaction Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
30	There are adequate teaching and training activities for nurses at this hospital.	370	4.02	0.85
27	I sometimes feel my job is meaningless.	367	3.87	1.10
32	I am proud to talk to other people about what I do in my job.	369	3.86	0.90
5	I am satisfied with the types of activities that I do in my job.	370	3.71	0.90
20	If I had the decision to make all over again, I would still go into nursing.	367	3.63	1.10
28	There are enough opportunities for nurses to advance in their career.	367	3.54	1.04
15	Even if I could make more money in another place, I am more satisfied here because of the working conditions.	368	3.53	1.00
34	I have enough opportunities to attend courses in and outside this hospital.	369	3.38	1.04
Component Mean and Standard Deviation:		354	3.69	0.51

Satisfaction with Nurse-Nurse Relationship

The component mean score for satisfaction with "nurse-nurse relationship" was $M = 3.42$ which indicates moderate job satisfaction. Table 4.2.14 shows the item mean and standard deviation scores obtained. It is interesting to note that nurses reported greater job satisfaction with the team spirit, co-operation between various levels of nurses, contact with their colleagues nurses and the nurses they talk to and work with, indicating that support derived from their immediate environment is readily available (items 17, 2, 23 and 9). Moderate satisfaction was reported by the respondents with regard to the work environment in terms of bickering and backbiting (item 33). The

respondents appeared, however, to be dissatisfied with administrative decisions and interference in patient care (item 35).

Table 4.2.14: Item Mean and Standard Deviation Scores for Nurse-Nurse Relationship Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
17	The nurses here are not as friendly as I would like.	369	3.73	0.91
2	The nurses on my unit often act like "one big happy family".	366	3.64	0.91
18	I'm generally satisfied with the way nursing work is organised and gets done at this hospital.	371	3.63	0.86
23	New employees are not quickly made to "feel at home" on my unit.	368	3.58	0.96
9	There is a good deal of teamwork and co-operation between various levels of nurses at this hospital.	370	3.57	0.88
7	The nursing administrators generally consult with the staff on daily problems and procedures.	368	3.43	1.01
13	I have the time and opportunity to discuss patient care problems with other nurses.	368	3.39	0.96
8	There is a lot of "rank consciousness" at this hospital, nurses seldom mix with others of lower ranks	367	3.31	1.13
25	There is a large gap between the nursing administration of this hospital and the daily problems of the nursing service.	370	3.29	1.08
33	Nurses at this hospital do a lot of bickering and backbiting.	362	3.21	1.10
35	Administrative decisions at this hospital sometimes interfere with patient care more than necessary.	366	2.95	1.09
	Component Mean and Standard Deviation:	346	3.42	0.53

Satisfaction with Nurse-patient Relationship

Table 4.2.15 shows the item mean and standard deviation scores for satisfaction with the nurse-patient relationship component. The component mean score was $M = 3.25$ indicating moderate satisfaction. It is interesting to note that nurses reported considerable satisfaction with their relationships with the patients and with the families of the patients (item 16). However, they reported moderate satisfaction with the way patients and their relatives treat and respect them and appreciate their efforts (items 3, and 6). They were dissatisfied with the unrealistic expectations and demands of the patients and their relatives (item 29).

Table 4.2.15: Item Mean and Standard Deviation Scores for Nurse-patient Relationship Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
16	I have satisfactory relationships with my patients and their families.	364	3.89	0.73
3	Patients/relatives do treat nurses with respect.	369	3.38	0.88
6	Patients/relatives are generally not appreciative of what nurses do for them.	367	3.07	1.00
29	The expectation of patients and their relatives on nursing services are unrealistically high.	365	2.66	0.97
	Component Mean and Standard Deviation:	358	3.25	0.61

Satisfaction with Nurse-Doctor Relationship

The component mean score for satisfaction with the "doctor-nurse relationship" was $M = 3.24$, indicating moderate satisfaction with this component. Table 4.2.16 shows the item mean and standard deviation scores obtained. The nurses were

considerably satisfied with the teamwork and co-operation between them and the doctors in their units. However, item 36 indicates only a moderate level of satisfaction with doctors' attitudes toward nurses in terms of appreciation of their work and efforts. Item 21 indicates dissatisfaction with the negative attitude of doctors with regard to an understanding of the constraints faced by nurses.

Table 4.2.16: Item Mean and Standard Deviation Scores for Nurse-Doctor Relationship Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
24	Teamwork between nurses and doctors on my unit is encouraging.	369	3.58	0.90
10	Physicians in general don't co-operate with the nursing staff on my unit.	368	3.56	0.93
36	Physicians at this hospital generally understand and appreciate what the nursing staff do.	369	3.25	1.00
21	Doctors do not understand the constraints faced by nurses.	365	2.58	1.10
	Component Mean and Standard Deviation:	362	3.24	0.75

Satisfaction with Pay

The component mean score was $M = 2.66$, which indicates dissatisfaction. Table 4.2.17 shows the item mean and standard deviation scores obtained. It is important to mention that this component's standard deviation value (S.D. 0.81) was the highest of any obtained, indicating a wide variation in nurses' attitudes toward pay. The table shows that nurses were moderately satisfied with their present salary but strongly dissatisfied with this salary when they compared it with the amount of work that they were doing or when they compared their salary to those of other nurses in another

organisation. Also, those nurses were considerably dissatisfied with the annual increment in salary.

Table 4.2.17: Item Mean and Standard Deviation Scores for Pay Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
1	My present salary is satisfactory.	369	3.04	1.10
22	Considering what is expected of nurses in this hospital, the pay we get is reasonable.	365	2.87	1.00
26	Compared to other hospitals, we at this hospital are poorly paid.	367	2.43	1.25
12	The annual increment in salary for nurses is not satisfactory.	369	2.34	1.05
	Component Mean and Standard Deviation:	362	2.66	0.81

Satisfaction with Workload

The component mean score for satisfaction with "workload" was $M = 2.47$, indicating dissatisfaction of the sample with this component. Table 4.2.18 shows the item mean and standard deviation scores obtained. It is important to note that there was clear dissatisfaction with the items addressing workload and time spent on administration and clerical and paperwork.

Table 4.2.18: Item Mean and Standard Deviation Scores for Workload Component

No. of Item in the Questionnaire	Item	N	Mean	S.D
11	I have sufficient time for direct patient care.	363	3.02	1.00
14	I think I could do a better job if I didn't have so much to do all the time.	366	2.76	1.00
19	A lower workload would improve my performance.	367	2.54	1.10
31	There is too much clerical and "paperwork" required of the nurses in this hospital.	371	2.13	1.11
4	I could deliver much better nursing care if I had more time with each patient.	362	1.97	0.87
	Component Mean and Standard Deviation:	354	2.47	0.60

4.2.1.3. Job- Related Stress

Part III of the questionnaire contained the measure of job-related stress, a 24-item Likert scale which measures respondents' current level of stress. Mean scores for the sources of stress are given in Table 4.2.19. The top six stressors were: "increased demand by patients and relatives" (2.49), "daily contact with dying and chronically ill patients" (2.42), "night shifts" (2.41), "dealing with the terminally ill and their relatives" (2.38), "dealing with problem patients" (2.36), and "uncertainty about treatment" (2.27).

Table 4.2.19: Item Mean and Standard Deviation Scores for Job-Induced Stress Scale. Each Item is Rated on a Scale of 1 to 4 (1= not at all stressful, 2 = minimally stressful, 3 = moderately stressful and 4 = extremely stressful)

Stressors (Items)	Mean	S.D
Increased demand by patients and relatives.	2.49	0.91
Daily contact with dying and chronically ill patients.	2.42	0.99
Night shifts.	2.41	1.05
Dealing with the terminally ill and their relatives.	2.38	0.93
Dealing with problem patients.	2.36	0.98
Uncertainty about treatment.	2.27	0.98
Dealing with emergency situations.	2.22	0.94
Unrealistically high expectations by others of your role.	2.22	0.93
Taking several samples from patients in a short time.	2.21	0.95
Language barriers when dealing with patients.	2.21	0.90
Time pressure.	2.17	0.95
Worrying about patients' complaints.	2.16	0.87
Hospital referral and paperwork.	2.16	0.89
Conflict with doctors.	2.14	1.04
No appreciation of your work by patients.	2.12	1.00
Coping with phone calls during working hours.	2.08	0.99
Dealing with relatives as patients.	1.97	0.94
Interference of job with family life.	1.82	0.86
Coping with new technology (e.g. computers).	1.80	0.79
Arranging admissions.	1.64	0.97
Need to maintain own knowledge.	1.64	0.86
Interference of your job with social life.	1.52	0.70
Dealing with friends as patients.	1.49	0.73
Nursing patients of the opposite sex.	1.44	0.75

4.2.2. Testing the Hypotheses (Inferential Statistics)

This section of the chapter deals with those hypotheses testing possible relationships between the dependent and independent variables of this study, in order to build a base for the analysis and interpretation of data in Chapter Six.

The Background Characteristics and Their Relation to Job Satisfaction Levels

Hypothesis one stated that:

There is no statistically significant difference between nurses with different background characteristics (age, gender, religion, marital status, number of children, availability of family members in Oman for expatriates, salary, designation, qualifications, period worked in Oman, years in the current post, work experience and shift patterns) in their job satisfaction.

Job satisfaction, the dependent variable, was categorized, as mentioned above, into two categories: satisfied and dissatisfied. The chi-square test was undertaken to determine if there was any significant difference according to the various factors of background variables, the independent variables, contained in Table 4.2.20, in levels of satisfaction. The starting point for the administration of the chi-square test was the null hypothesis of no difference in satisfaction related to the variable being examined.

Table 4.2.20 presents the results of the chi-square statistical procedure. From Table 4.2.20, it is obvious that only one demographic variable was found to show a significant difference in job satisfaction. That variable was “period worked in Oman”, for expatriate nurses. The chi-square value was 5.91 and it was significant at $P = 0.05$. For those expatriate nurses as the period of staying in Oman becomes longer, their job satisfaction decreases. Therefore the null hypothesis was accepted for all the background variables except “period worked in Oman”.

Table 4.2.20: Frequencies and Percentages of Satisfaction Levels in Relation to the Background Variables (Chi-Square) {Hypothesis # 1}

Background Characteristic		Satisfaction level		χ^2	p
		Satisfied N (%)	Dissatisfied N (%)		
Age	1) Young	170 (71.1)	69 (28.9)	1.60	.20
	2) Old	48 (63.2)	28 (36.8)		
Sex	1) Male	9 (50.0)	9 (50.0)	3.10	.08
	2) Female	209 (70.4)	88 (29.6)		
Religion	1) Muslim	44 (73.3)	16 (26.7)	0.61	.44
	2) Non-Muslim	174 (68.2)	81 (31.8)		
Marital Status	1) Single	40 (71.4)	16 (28.6)	0.76	.68
	2) Married	171 (69.2)	76 (30.8)		
	3) Others	7 (58.3)	5 (41.7)		
Number of Children	1) None	57 (69.5)	25 (30.5)	3.20	.36
	2) 1-3	148 (69.5)	65 (30.5)		
	3) 4-6	12 (80.0)	3 (20.0)		
	4) More than 6	0	1 (100.0)		
Availability of Family in Oman (expatriates)	1) Available	104 (70.3)	44 (29.7)	0.45	.50
	2) Not available	77 (66.4)	39 (33.6)		
Salary	1) 400 OR or Less	159 (69.1)	71 (30.9)	0.15	.92
	2) 401-600 OR	35 (71.4)	14 (28.6)		
	3) > 600 OR	23 (67.6)	11 (32.4)		
Post	1) Staff Nurse	156 (69.6)	68 (30.4)	0.10	.79
	2) Senior Nurse	61 (67.8)	29 (32.2)		
Highest Degree	1) Diploma	158 (71.8)	62 (28.2)	3.11	.21
	2) Bachelor	49 (61.2)	31 (38.8)		
	3) Postgraduate	11 (73.3)	4 (26.7)		
Period Worked in Oman (expatriates)	1) 7 years or Less	93 (76.2)	29 (23.8)	5.91	.05*
	2) 8-11 years	42 (66.7)	21 (33.3)		
	3) > 11 years	49 (60.5)	32 (39.5)		
Years at Current Post	1) 4 years or Less	83 (72.8)	31 (27.2)	0.91	.63
	2) 5-8 years	33 (67.3)	16 (32.7)		
	3) > 8 years	101 (67.8)	48 (32.2)		
Shift Patterns	1) Day Duty	50 (73.5)	18 (26.5)	0.72	.39
	2) Mixed Duty	165 (68.2)	77 (31.8)		
Work Experience	1) < 5 years	29 (65.9)	15 (34.1)	0.99	.60
	2) 5-16 years	130 (71.4)	52 (28.6)		
	3) > 16 years	59 (66.3)	30 (33.7)		

* Significant at p = 0. 05

Nationality

Hypothesis two stated that:

There is no statistically significant difference between Omani nurses and non-Omani nurses with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

T-tests were used to study the difference in job satisfaction and factors (components) contributing to it between Omani and non- Omani nurses.

For research hypothesis two, it was predicted that the responses of Omani nurses would indicate different levels of job satisfaction from expatriate nurses. This hypothesis was rejected. There was no statistically significant difference between Omani nurses and expatriate nurses with regard to overall job satisfaction, or with regard to each dimension of job satisfaction (Table 4.2.21). Therefore, the null hypothesis was accepted.

Table 4.2.21: Description of Satisfaction Dimensions (Mean, Standard Deviation and Degree of Freedom) by Nationality and t-Test value {Hypothesis # 2}

Factors	Omani			Non- Omani			t-Test	df	p
	N	Mean	S.D.	N	Mean	S.D.			
Professional Satisfaction	61*	3.61	0.56	293*	3.70	0.50	1.38	352	.17
Nurse-Nurse Relationship	55	3.49	0.54	291	3.41	0.53	1.12	344	.26
Nurse-Patient Relationship	60	3.18	0.55	298	3.26	0.62	0.98	356	.33
Doctor-Nurse Relationship	57	3.36	0.56	305	3.22	0.78	1.32	360	.19
Pay	60	2.76	0.83	302	2.63	0.80	1.12	360	.26
Workload	58	2.39	0.54	296	2.49	0.61	1.19	352	.24
Overall Job Satisfaction	43	3.18	0.30	271	3.22	0.40	0.68	312	.50

* Variations in numbers indicates missing data

Effect of Place of Work (Health Institution) on Job Satisfaction

Hypothesis three stated that:

There is no statistically significant difference between the nurses at different health institutions with regard to job satisfaction (overall job satisfaction and satisfaction with each component).

Hypothesis # 3 aimed to study the effect of place of work on job satisfaction and its factors (components). As mentioned in Chapter Three, there were four health institutions selected for this study:

- 1) University Hospital (Sultan Qaboos University)
- 2) Al- Shatti Hospital (Private Sector)
- 3) Royal Hospital (Ministry of Health)
- 4) Health Centres (Ministry of Health)

Table 4.2.22 summarises the results of One-way Analysis of Variance (ANOVA) where the place of work was the independent variable and job satisfaction scores on different satisfaction factors were the dependent variables.

Table 4.2.22 shows that the effect of place of work was statistically significant for all the six job satisfaction factors, but not for the overall job satisfaction. In other words, the mean scores of nurses in different places of work, for each of these factors were not equal. Therefore, the null hypothesis was rejected. The overall job satisfaction was weighted equally by the different group in the study.

Table 4.2.22: ANOVA Results for the Effect of Place of Work on Job Satisfaction (Hypothesis # 3)

Dependent Variables (factors)	Source of Variation	Degree of Freedom	Sum of Squares	Mean Squares	F	Sig.
Professional Satisfaction	Between groups	3	3.27	1.09	4.26	.006
	Within groups	350	89.61	0.26		
	<i>Total</i>	353	92.88			
Nurse-Nurse Relationship	Between groups	3	4.40	1.47	5.43	.001
	Within groups	342	92.32	0.27		
	<i>Total</i>	345	96.72			
Nurse-Patient Relationship	Between groups	3	11.17	3.72	10.80	.000
	Within groups	354	122.08	0.35		
	<i>Total</i>	357	133.25			
Nurse-Doctor Relationship	Between groups	3	9.47	3.15	5.78	.001
	Within groups	358	195.23	0.54		
	<i>Total</i>	361	204.70			
Pay	Between groups	3	30.77	10.26	18.03	.000
	Within groups	358	203.65	0.56		
	<i>Total</i>	361	234.43			
Workload	Between groups	3	4.20	1.40	4.05	.008
	Within groups	350	120.87	0.35		
	<i>Total</i>	353	125.07			
Overall Job Satisfaction	Between groups	3	1.96	1.04	3.98	.008
	Within groups	311	50.95	0.23		
	<i>Total</i>	314	52.91			

It is naturally useful to say which health institutions are responsible for these differences in job satisfaction. To be able to do this, Tukey's tests were carried out to shed light on these differences in nurses' job satisfaction among the health institutions selected for this study. The results of these tests for each factor are presented separately as follows (See Appendix 16b):

Professional Satisfaction

There was a statistically significant difference in the professional satisfaction between nurses working in the Royal Hospital and those working in Al-Shatti Hospital and in the health centres. Nurses in the Royal Hospital tended to show a higher level of

professional satisfaction, than the nurses of Al- Shatti Hospital and the health centres.

Table 4.2.23 shows the mean scores of this component for each health institution.

Table 4.2.23: Mean Scores of Satisfaction with Professional Status for each Health Institution

Health Institution	N	Mean
University Hospital	75	3.63
Al- Shatti Hospital	24	3.48
Royal Hospital	224	3.76
Health centres	31	3.50

Nurse-Nurse Relationship

Tukey's test showed that there was a significant difference in the satisfaction with nurse-nurse relationship between nurses working in the health centres and those working in the University and Royal hospitals. Nurses in the health centres tended to show a higher level of satisfaction with their nurse-nurse relationship than the nurses of the University and Royal hospitals. This difference could be due to the size of the health institution. Nurses in the health centres are closer to each other and have more personal and social relationships. Table 4.2.24 shows the mean scores of this component for each health institution.

Table 4.2.24: Mean Scores of Satisfaction with Nurse-Nurse Relationship for each Health Institution

Health Institution	N	Mean
University Hospital	71	3.40
Al- Shatti Hospital	25	3.58
Royal Hospital	222	3.37
Health centres	28	3.77

Nurse-Patient Relationship

The result of Tukey's test revealed that there was a statistically significant difference in the satisfaction with nurse-patient relationship between nurses in the health centres and those in the hospitals and between nurses working in the Royal Hospital and those working in the University Hospital and Al-Shatti Hospital. Nurses in the health centres were the least satisfied with the nurse-patient relationship. Table 4.2.25 shows the mean scores of this component for each health institution.

Table 4.2.25: Mean Scores of Satisfaction with Nurse-Patient Relationship for each Health Institution

Health Institution	N	Mean
University Hospital	75	3.52
Al- Shatti Hospital	24	3.48
Royal Hospital	228	3.18
Health centres	31	2.92

Nurse-Doctor Relationship

There was a significant difference in the satisfaction with doctor-nurse relationship between the nurses in the Royal Hospital and those in the health centers and University Hospital. The results indicated that the nurses in the Royal Hospital had the lowest mean score (3.12) for the satisfaction with doctor-nurse relationship, while the highest mean was found among nurses working in the health centres (3.61). Table 4.2.26 shows the mean scores of this component for each health institution.

Table 4.2.26: Mean Scores of Satisfaction with Doctor-Nurse Relationship for each Health Institution

Health Institution	N	Mean
University Hospital	74	3.43
Al- Shatti Hospital	27	3.29
Royal Hospital	234	3.12
Health centres	27	3.61

Pay

There were statistically significant differences in the satisfaction with pay between the nurses in the University Hospital and those in Al- Shatti Hospital, Royal Hospital and the health centres. The nurses of the University Hospital had significantly greater mean scores for satisfaction with pay, than those in the other three health institutions. As can be seen from Table 4.2.27, nurses of the University Hospital were almost moderately satisfied with their pay while nurses of the other health institutions were strongly dissatisfied with their pay, the most dissatisfied being the Ministry of Health employees (Royal Hospital and health centres).

Table 4.2.27: Mean Scores of Satisfaction with Pay for each Health Institution

Health Institution	N	Mean
University Hospital	75	3.21
Al- Shatti Hospital	25	2.73
Royal Hospital	233	2.49
Health centres	29	2.43

Workload

There were statistically significant differences in the satisfaction with workload between the nurses in Al- Shatti Hospital and those in the University Hospital, Royal Hospital and health centres. The results indicated that the nurses in the health centres were the group most dissatisfied with workload and had the lowest mean score (2.33). Also, the nurses in the Royal Hospital (mean = 2.45) and University Hospital (2.47) were less satisfied with their workload than the nurses in the Al- Shatti Hospital. Table 4.2.28 shows the mean scores of this component for each health institution.

Table 4.2.28: Mean Scores of Satisfaction with Workload for each Health Institution

Health Institution	N	Mean
University Hospital	72	2.47
Al- Shatti Hospital	26	2.84
Royal Hospital	226	2.45
Health centres	30	2.33

The Effect of Practice Area on Job Satisfaction

Hypothesis four stated that:

There is no statistically significant difference in job satisfaction between nurses working in different practice areas.

Table 4.2.29 shows the results of the ANOVA test of job satisfaction of nurses by practice areas. This table shows a statistically significant difference in job satisfaction ($F = 3.57, p = 0.004$) between nurses working in different practice areas. Therefore the null hypothesis is rejected.

Table 4.2.29: Analysis of Variance of Job Satisfaction of Nurses by Practice Area (Hypothesis # 4)

Sources of Variation	Sum of Squares	Degree of Freedom	Mean Squares	F	Sig.
Between Groups (Explained)	2.58	5	0.52	3.57	0.004
Within Groups (Residual)	44.19	307	0.14		
Total	46.78	312			

It is naturally useful to say which practice areas are responsible for these differences in job satisfaction. To be able to do this, Tukey's test was carried out to shed light on these differences among nurses working in different practice areas (See Appendix 16c).

Tukey's test showed statistically significant differences in the job satisfaction between nurses working in the specialised critical care units and those working in the wards, OPD and in the Accident and Emergency (A&E) and between nurses working in OT and nursing administration and those working in A&E. Nurses working in the specialised critical care units were more satisfied than their colleagues in the wards, OPD and in the Accident and Emergency (A&E). Nurses in the A&E were the least satisfied with their work. Table 4.2.30 shows the mean scores of the job satisfaction (overall) for each practice area.

Table 4.2.30: Mean Scores of Job Satisfaction for each Practice Area

Practice Areas	N	Mean
Wards	156	3.17
Out Patient Department (OPD)	45	3.19
Specialised Critical Care	49	3.37
Operating Theatre (OT)	28	3.29
Accident & Emergency (A & E)	20	2.99
Nursing Administration	15	3.32

Job-Induced Stress and Job Satisfaction

Hypothesis five stated that:

There is no significant correlation between job satisfaction (overall job satisfaction and satisfaction with each of its components) and job-induced stress.

Table 4.2.31 shows the results of Spearman's rho correlations between overall satisfaction and stress and between satisfaction with each component of job satisfaction and stress for all nurses working in the hospitals (Royal Hospital, University Hospital, and Al-Shatti Hospital). Nurses of the health centres were not considered because the stress scales were not in general applicable, leaving too few cases sensibly to compute correlations.

The table shows there was no statistically significant correlation between satisfaction with pay and job-induced stress ($- 0.11$, $p = 0.100$). Therefore the null hypothesis was accepted for this component.

There were moderate negative correlations between job-induced stress and professional satisfaction ($- 0.46$) and satisfaction with nurse-nurse relationship ($- 0.40$). These correlations were statistically significant. The null hypothesis was therefore rejected. This means that job-induced stress was significantly and inversely affected these components.

Also, Table 4.2.31 indicates that there were low negative correlations between job-induced stress and satisfaction with nurse-patient relationship ($- 0.31$), doctor-nurse relationship ($- 0.32$), and workload ($- 0.29$) and these correlations were statistically significant. Therefore, null hypothesis was rejected.

Lastly, Table 4.2.31 shows the correlation between overall job satisfaction and job-induced stress. This correlation is modest ($- 0.50$) and statistically significant. Therefore, the null hypothesis was rejected. The negative relationship between these two variables indicates that as the level of stress increases, there tends to be a decrease in the level of job satisfaction or vice versa.

Spearman's rho correlations were computed for both Omani and non-Omani nurses separately. Similar patterns of correlations were observed for both groups and for the combined group.

Table 4.2.31: Correlations of Overall Job Satisfaction and Satisfaction with each Component Against Job- Induced Stress (N³ = 215)

Job Satisfaction Scale	Spearman's rho Correlation	p
Pay	-0.11	0.100
Professional Satisfaction	- 0.46	0.000
Nurse-Nurse Relationship	-0.400	0.000
Nurse-Patient Relationship	- 0.31	0.000
Nurse-Doctor Relationship	- 0.32	0.000
Workload	- 0.29	0.000
Overall job satisfaction	- 0.50	0.000

Nurses' Job Satisfaction by Wards

Hypothesis six stated that:

There is no statistically significant difference in job satisfaction between nurses working in different wards.

Hypothesis # 6 aimed to explore whether there is any significant difference between nurses of different wards (medical, surgical, obstetric and gynaecology, paediatrics, and other wards) with regard to job satisfaction (overall). The starting point was the null hypothesis of no relationship between the two variables being examined. One-way analysis of variance (ANOVA) test was used to test this hypothesis.

Table 4.2.32 shows the results of the ANOVA test of job satisfaction of nurses by wards. This table shows no significant difference in job satisfaction ($F = 0.82, p = 0.51$) between nurses working in different wards. Therefore the null hypothesis is accepted.

³ The respondents were given the option to answer "not applicable". This led to a situation where only 215 of the respondents gave valid answers

Table 4.2.32: Analysis of Variance of Job Satisfaction of Nurses by Wards (Hypothesis # 6)

Sources of Variation	Sum of Squares	Degree of Freedom	Mean Squares	F	Sig.
Between Groups (Explained)	0.52	4	0.13	0.82	0.51
Within Groups (Residual)	23.46	149	0.16		
Total	23.98	153			

Multiple Regression

Stepwise multiple regression analysis was calculated with job satisfaction as the dependent variable against job-induced stress and demographic factors as the independent variables (see section 4.1.2 for discussion of regression and multivariate analysis). The main aim of this regression analysis was to examine the possible contribution of the independent variables to the dependent variable and not merely to make prediction. The demographic factors (age, sex, religion, marital status, number of children, availability of family members in Oman for expatriates, salary, post, highest degree, period worked in Oman for expatriates, years at current post, shift pattern, total work experience, nationality, and type of health institution) were of different types: nominal, and ordinal. Therefore, they were transformed into dummy variables, so that each level of the nominal variables became a flag variable. Only three of these independent variables were found to be significantly associated with job satisfaction; they were job-induced stress, post (senior nurse) and period worked in Oman (7 years or less), see Table 4.2.33. These factors accounted for 30% of the variance. Job-induced stress was inversely associated with job satisfaction (see the scatter plot Figure 4.2.1). This means that for every increase in nurses' job-induced stress, there is a decrease in job satisfaction. Given the demographic factors in the equation, evidently the nurses

most at risk of job dissatisfaction were those who had been in Oman for a longer period (more than 7 years) and those who were juniors (staff nurses).

Figure 4.2.1

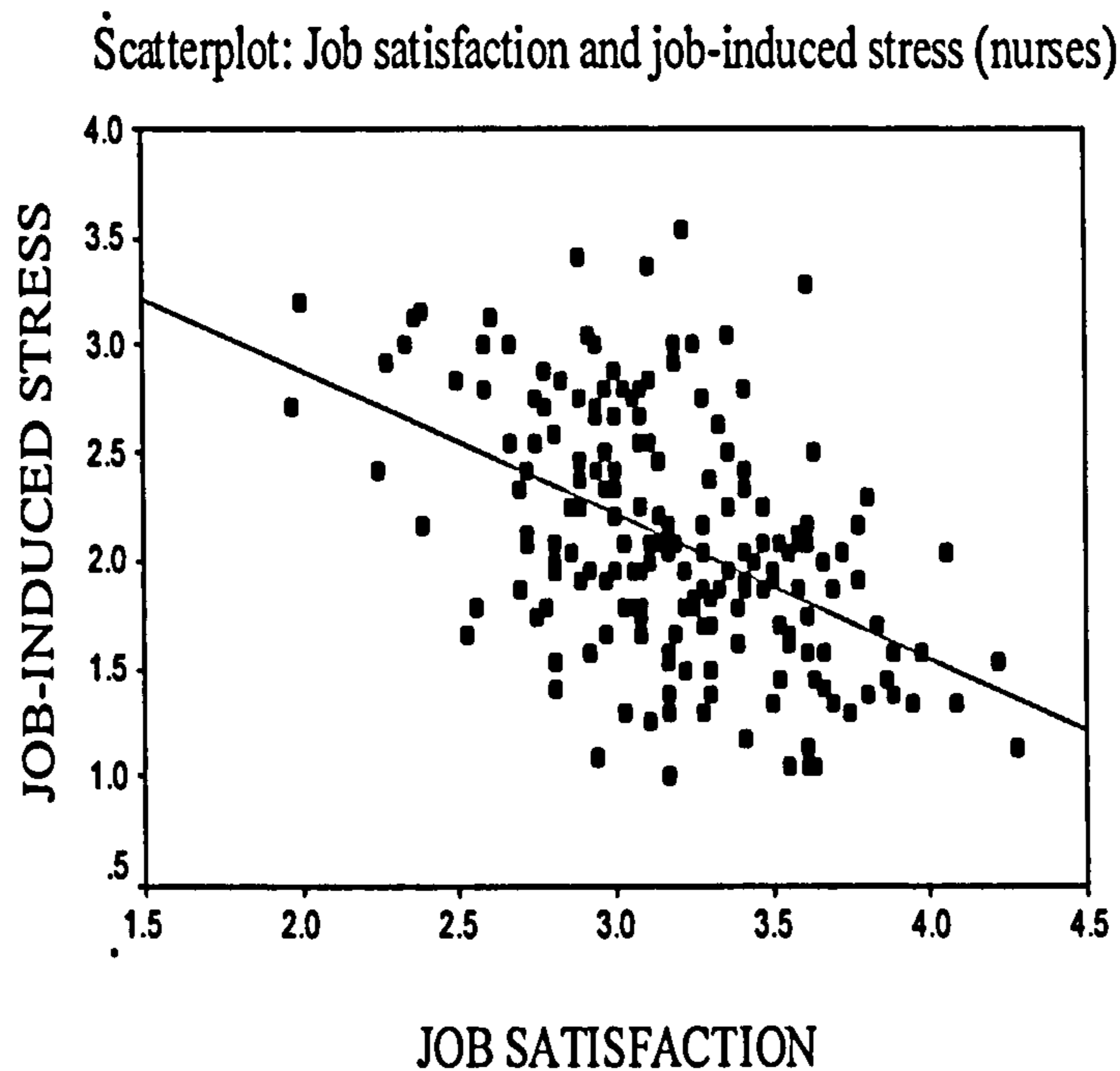


Table 4.2.33: Summary of the Multiple Regression Result (N = 205)

Step	Independent Variables	B Coefficient (t)	SE	Cumulative R ²
1	Job-induced stress	-0.432 (7.94)*	0.05	0.24
2	Senior nurse (post)	0.169 (3.01)*	0.06	0.28
3	Period worked in Oman for expatriates (7 years or less)	0.136 (2.21)*	0.06	0.30
	(Constant)	3.97 (35.19)		—

F = 22.47 at p = 0.001, * Significant at p < 0.05, Tolerance > 0.90

4.2.3. Content Analysis of the Open-Ended Questions

A total of 159 questionnaires (43% of the total returned questionnaires) were returned with clear readable comments. 108 nurses (68%) responded to question one.

The second question received comments from 128 nurses (81%). 77 nurses (48%) provided comments on both questions, 31 nurses (20%) commented only on question one and 51 nurses (32%) provided comments only on question two.

The results of the content analysis of question one showed several dimensions of the nurses' job contributing to their dissatisfaction and frustration. These dimensions are represented in Table 4.2.33

Table 4.2.34: Sources of Job Dissatisfaction (N = 108)

Main Themes (factors)	Number of Respondents*	%
Pay	47	43.5
Administration	40	37.0
Promotion	37	34.3
Work-load (paper-work)	25	23.1
Doctor-nurse relationship	18	16.7
Job security	11	10.2

* Each respondent provided comments for more than one factor

These dimensions were salary, administration, promotion prospects, workload, job security, and doctor-nurse relationship. However, administration elicited mixed feelings of satisfaction and dissatisfaction.

The main concern of nurses was salary. Forty-seven nurses (43.5%) were dissatisfied with their salary. Nurses in the Ministry of Health (Royal Hospital and the health centres) are less paid than nurses in other governmental hospitals like Sultan Qaboos University Hospital.

“Salary is very low compared to the work load and compared to other hospitals...” (Nurse, Royal Hospital).

“I feel that I am underpaid according to my work experience...” (Nurse, Royal Hospital).

“The rate of pay and privileges should be equalised across all equivalent medical organizations in Oman. The Royal Hospital seems to be lagging behind Sultan Qaboos University Hospital and the Armed Forces Hospital...” (Nurse, Royal Hospital).

Also, Omani nurses in the Ministry of Health, especially in the Royal Hospital, felt that their salary is low in comparison to those of certain other expatriate nurses in the same post. This feeling of inequity was described by Omani nurses in these statements:

“Even if you have equivalent certificates with an expatriate the salary is not the same, which makes us feel depressed...” (Omani Nurse Royal Hospital).

“We as Omani nurses are working as in-charges of the departments with other nationalities for example, Jordanian and British, doing exactly the same job or more responsibility but our salaries are much lower than theirs and this is very painful to us...” (Omani Nurse, Royal Hospital).

Some nurses from the private hospital (Al Shatti) also expressed the feeling of inequity in pay:

“There is no increase in the salary of low paid nurses because of their brown/dark skin...I think what is important is not what they are but what they capable of...” (Nurse- Al-Shatti Hospital).

There are too many grades (from one to twelve) for nurses in Sultan Qaboos University Hospital. Those at the bottom have very strong feelings of inequity in the grades and salary.

“The main problem that we juniors are facing very low salary compared to seniors. The workload is more on us...” (Nurse-SQUH).

“In this hospital the staff nurses are working very hard and they are the ones who give direct patient care. However, they are the ones who face much "discrimination" by means of grade and salary...” (Nurse-SQUH).

Forty responses (37.0%) to question one centred upon the administration (medical and nursing administrations) as a potential dissatisfier to the nurses in the hospitals.

Nurses' sense of autonomy was threatened:

“If you are employed as a ward nurse it would indicate that you are being employed as a manager, yet no one allows you to make decisions about your department without it going through several different committees...” (Nurse, Royal Hospital).

Nurses complained of frequent and unexplained changes in policies and regulations regarding nursing:

“Changing of hospital policies and procedures very often makes confusion...” (Nurse, Royal Hospital).

There were problems in communication with both nursing and medical administrations:

“Poor communication within the hospital...” (Nurse Al Shatti hospital).

“The administrative level concern themselves only with paperwork but not with quality of patient care...” (Nurse, Royal Hospital).

Lack of appreciation and support from the nursing administration was mentioned:

“There is no appreciation of hard work by the supervisors....” (Nurse, Royal Hospital).

“Lack of appreciation / lack of support for nurses as a whole from the nursing and medical administrations...” (Nurse- SQUH).

Another criticism was management of conflict situations:

“I feel that our supervisors believe the doctors more than nurses when something happens...” (Nurse, Royal Hospital).

“If any mistake happens from the nurses' side, even the nursing authority will not support or try to find out the real reasons, instead they will suppress the staff....” (Nurse, Royal Hospital).

“The nursing administration should be fair in their dealing with staff and not show any partiality....” (Nurse, SQUH).

Omani nurses at Royal Hospital expressed anxiety that the administration did not give them priority over expatriate nurses when filling higher posts and their opportunities for studying abroad were minimal:

“Expatriates are occupying higher positions that Omani senior nurses who have long time experience can do...” (Omani Nurse, Royal Hospital).

“Less chance for studying abroad...” (Omani Nurse, Royal Hospital).

By contrast, a further seventeen comments (8%, question two) revealed satisfaction with administration (medical and nursing) in terms of help and support:

“The attitude of the University administration toward the employees is very helpful and understanding in time of need...” (Nurse- SQUH).

“All the staff appreciate what I do, especially the hospital administration and the nursing administration. I'm very pleased with their support....” (Nurse, Royal Hospital).

Lack of promotion was another major concern and source of dissatisfaction and frustration among nurses in almost all the health institutions selected for the study. Thirty-seven nurses (34.3%) provided negative comments about the promotion prospects.

“I have been working as a staff nurse for 14 years, never had a bonus or grade change...” (Nurse, Royal Hospital).

“There is no promotion for staff nurses even after ten years of hard work and experience in Oman...” (Nurse, Royal Hospital).

Several assessed their chances of promotion as non-existent:

“Being a staff nurse for the past 13 years, no appreciation, no promotion and will always be a staff nurse till end of the time...” (Nurse-Royal Hospital).

“It is also sad to note that there is no way of upgrading the status of the staff nurses. I believe everybody is entitled to any promotion that she/he is suitable for...” (Nurse-SQUH).

There was also resentment of the way in which promotion was given:

“Incentive to be given as per the grade and experience. It should be given according to seniority, not by *wasta* (Arabic word for indirect means)...” (Nurse, Royal Hospital).

“The different grading in the nursing services; and the huge difference in the salary and annual leave for people doing the same job dissatisfy and frustrate me very much...” (Nurse- SQUH).

Twenty-five nurses (23.1%) felt that workload was a source of job dissatisfaction to them. Too much paperwork was the main reason for the heavy workload in all the

health institutions selected for the study. Nurses felt that the heavy workload was preventing them from giving good nursing care to their patients.

“There is very limited time for the nurses to give good nursing care. We spend most of the time on paper work. I am not interested to do all clerical work without giving good nursing care to patients...” (Nurse, Royal Hospital).

“There is too much paper work and clerical work in this hospital for nurses which is more than nursing care...” (Nurse, Royal Hospital).

“Unnecessary writing work should be avoided in nursing so that will help the staff to give more care to the patients...” (Nurse, Royal Hospital).

“The heavy workload in certain wards hinders us in giving better nursing care...” (Nurse-SQUH).

Eighteen respondents (16.7%) expressed dissatisfaction with their relationship with doctors, especially in Royal and Al Shatti Hospitals:

“What concerns me most is the lack of co-operation and dedication among doctors to their chosen profession...” (Nurse, Royal Hospital).

“The bureaucracy interferes with patient care. The doctor's failure to listen to nurses is one of the biggest problems at this hospital. They treat both staff and senior nurses as inferiors and majority of them are not willing to take advise despite experience...” (Nurse, Royal Hospital).

“There should be no dislike or like among doctors for nurses. Some of the doctors should be more friendly and cheerful...” (Nurse Al Shatti hospital).

“Poor documentation by physicians...” (Nurse Al Shatti hospital).

Eleven expatriate nurses (10%) expressed their feeling of job uncertainty. Their comments indicated a sense of overwhelming bleakness and uncertainty. The fear of impending job loss was greater among the nurses at Sultan Qaboos University Hospital.

“Unexpected termination of nurses without reasons concerns me...” (Nurse, Royal Hospital).

“What concerns me more is the termination of good staff. I feel the next person may be me...” (Nurse- SQUH).

“Uncertainty of job. There is now a lot of terminations going on at SQUH which is really a major source of dissatisfaction, stress and anxiety to us...” (Nurse-SQUH).

“The recent massive termination of skilled nurses from skilled areas can not be explained...” (Nurse- SQUH).

Content analysis of responses to question two indicated several factors that were considered by the nurses in this study as sources of job satisfaction. These factors were professional development, relationships at work, duty hours, nursing care, administration, and working conditions. Table 4.2.34 represents the sources of nurses' job satisfaction.

Table 4.2.35: Sources of Job Satisfaction (N = 128)

Main Themes (factors)	Sub- themes	Number of Respondents*	%
Professional development	--	83	65.0
Interaction at work	1) With colleagues	40	31.3
	2) With patients	10	7.8
	3) Team-work	9	7.0
Shift	--	22	17.2
Others	--	20	15.6
Administration	--	17	13.3
Working conditions	--	12	9.4

The majority of nurses (65.0%) who provided comments to question two considered professional development as the main thing that pleased them. There were a lot of educational activities and in-service teaching programmes for nurses, especially in the teaching hospitals: Royal Hospital and Sultan Qaboos University Hospital.

“Continuing nursing education is most advantage for me and for us. It gives us an insight of what the other fields of practice are about, arousing our curiosity to experience more in our field...” (Nurse- Al Shatti hospital).

“What pleases me most is the sharing of knowledge in the nursing education programme...” (Nurse- Al Shatti hospital).

“I think one of the things that I like here is the continuous education/ seminars and workshops which added a lot to my knowledge and experience...” (Nurse- SQUH).

“I am happy with the in -service education programme at this hospital which improves the knowledge of all nurses...” (Nurse, Royal Hospital).

“In service education in this hospital gives good knowledge and better care for the patients...” (Nurse, Royal Hospital).

“I really appreciate the Royal Hospital In-service Education Programme, in which we can update our knowledge and apply this knowledge in our nursing work in the ward...” (Nurse, Royal Hospital).

Fifty-nine (46%) of the nurses who provided responses to question two were very pleased with their relationships at their work in all the health institutions selected for the study. There were forty comments (31.3%) on the relationship among nurses themselves, ten comments (7.8%) on the relationship with patients and nine comments (7.0%) on the relationship as a team. Nurses felt that these relationships were sources of satisfaction:

“A friendly atmosphere is seen in this hospital...” (Nurse- Al Shatti Hospital).

“Cooperation within our unit is highly appreciated...” (Nurse- SQUH).

“I really pleased with the friendliness of the patients and their relatives toward the nurses...” (Nurse, Royal Hospital).

“The patients and their relatives are friendly and easy to deal with...” (Nurse- SQUH).

“There is cooperation and teamwork among the staffs in my unit, which is encouraging and reduces the stress at work...” (Nurse- SQUH).

Duty hours were another source of nurses' job satisfaction. Nurses were apparently satisfied with their shift schedules in the all hospitals and health centres involved in the study (twenty-two respondents).

“I'm very satisfied with the working hours and the arrangement of the shift schedules...” (Nurse, Royal Hospital).

“Duty hours and pattern (Block System) is very much convenient for the staff to plan their programmes...” (Nurse, Royal Hospital).

“I'm satisfied with the working hours in our hospital...” (Nurse- SQUH).

Twelve nurses (9.4%) stated that working conditions in terms of medical and non-medical facilities, cleanliness, and location of the building were also related to their job satisfaction.

“This hospital is well equipped and well maintained. It is easy to work smoothly...” (Nurse, Royal Hospital).

“What pleases me most is the hospital building and location...” (Nurse Al Shatti Hospital).

However, nurses in the health centres were apparently dissatisfied with their working conditions. The buildings are small, they have old medical facilities, no meeting rooms, no prayer rooms and no place for rest and coffee (two respondents).

Other factors, including mainly the quality of nursing care, were a source of job satisfaction for the nurses (twenty respondents).

“I'm satisfied more with the quality of care given to our patients...” (Nurse- Al Shatti hospital).

“I'm pleased about the advanced technology used in this hospital and the type of care rendered to our patients...” (Nurse, Royal Hospital).

“The nursing care given to the patients in this hospital is of high quality which is a source of great satisfaction to me...” (Nurse, Royal Hospital).

4.3. Conclusion

This chapter has presented the results of the doctors and nurses' surveys. The findings with regard to doctors indicated that about 68.4% of doctors were satisfied and 31.6% were dissatisfied. The overall job satisfaction score was $M = 3.21$, indicating a moderate satisfaction and suggesting that doctors find their job more satisfying than dissatisfying. Doctors were satisfied with professional status and teamwork and they were dissatisfied with administration, workload and pay. The results also showed that older doctors were more satisfied than younger doctors, married doctors were more satisfied than unmarried, and those in higher posts and with higher salaries were more satisfied than the rest. Additionally, job satisfaction was found to be increased with increasing work experience and decreased with increasing weekly working hours. There was a significant difference between Omani and non-Omani doctors in relation to overall job satisfaction, administration, workload, and teamwork. Omani doctors were

less satisfied with these aspects than non-Omanis. There were significant differences between doctors at different health institutions with regard to professional status, administration, professional development, workload and pay. Doctors of the health centres had the lowest mean (3.51) and doctors of Al Shatti Hospital had the highest mean (4.00) in their satisfaction with professional status. Doctors of the University Hospital and doctors of the Royal Hospital had the lowest means in the satisfaction with administration and doctors of the health centres had the highest mean. Doctors of the Royal Hospital were more satisfied with their opportunities for professional development than the rest. Doctors of the Royal Hospital and health centres were the most dissatisfied with pay. Doctors of Al- Shatti Hospital (private sector) were much more satisfied with their workload than the doctors of the University Hospital, Royal Hospital and the health centres. Doctors of the health centres were the most dissatisfied with this component. There was a statistically significant inverse correlation between job stress and job satisfaction. All of the job satisfaction components except for pay were negatively influenced by stress, with an especially strong relationship between job stress and workload.

The results of the nurses' survey showed that 73.6% of nurses in the sample were satisfied with their job and 26.4% were dissatisfied. The overall mean score of job satisfaction was 3.21, indicating a moderate level of satisfaction. Nurses were satisfied professionally: they appeared to be satisfied with their job status, satisfied with the extent to which they could use their skills and they felt adequately trained to provide the care required in their units. Nurses were also satisfied with their relationships with colleagues, and moderately satisfied with their relationships with patients and doctors. There was considerable dissatisfaction with pay and workload, especially with clerical and paper work. Also, there was dissatisfaction with promotion and job security. There

was no association between background variables of nurses and job satisfaction except for the variable "period worked in Oman", which concerned expatriate nurses. As the period of staying in Oman becomes longer, their job satisfaction decreases. There was no significant difference between Omani and non-Omani nurses in relation to job satisfaction. The findings indicated that there was a significant difference between nurses working at different health institutions with regard to satisfaction with professional status, nurse-nurse relationship, nurse-patient relationship, nurse-doctor relationship, workload and pay. Nurses of the Royal Hospital tended to show a higher level of professional satisfaction than the nurses of the Al-Shatti Hospital and the health centres. Nurses of the health centres tended to show a higher level of satisfaction with their nurse-nurse relationship than the nurses of the University and Royal hospitals. Nurses of the health centres were the least satisfied with the relationships with patients and nurses of the Royal Hospital were the least satisfied with the relationships with doctors and both groups were strongly dissatisfied with workload and pay. There was a statistically significant inverse correlation between job stress and job satisfaction. All of the job satisfaction components except for pay were negatively influenced by stress, with especially strong relationships between job stress and overall job satisfaction.

CHAPTER FIVE

RESULTS FROM THE FOCUS GROUP'S

The rationale for the focus group interviews was to achieve an in-depth subjective understanding of the determinants of job satisfaction of doctors and nurses through a facilitated group interaction process. The results of the focus groups will be discussed alongside the results from the survey questionnaires, in Chapter Six, to give the study more depth and strength (triangulation).

Three focus group interviews were conducted for this study. The first group was in the Royal Hospital and it included eight participants: five nurses (two Omani and three expatriates), and three doctors (one Omani and two expatriates). The second group was conducted in the University Hospital with eleven participants: five nurses (two Omani and three expatriates), and six doctors (two Omani and four expatriates). The last focus group was composed of eight doctors and nurses from three health centres in the Muscat region: three Omani doctors, two expatriate doctors, two Omani nurses and one expatriate nurse. This focus group was conducted in Arabic.

Members of the focus groups were invited to discuss their feelings of satisfaction / dissatisfaction with different aspects of their current work at their organisations as well as the sources of their job-related stress (see Appendix 11 for the topic guide).

In all three focus group interviews, the participants, doctors and nurses, cited a number of factors that influence job satisfaction, with eleven major themes mentioned most often (see Appendix 15: part 1 and part 2 for the transcripts). These themes were:

1. professional status
2. interaction
3. workload

4. pay
5. promotion
6. professional development
7. administration
8. working conditions
9. teaching
10. autonomy
11. job security

1. Professional Status

Almost all doctors and nurses from University Hospital and Royal Hospital and doctors and nurses from the health centres stated that the major source of their satisfaction was the significance of their job (the professional status). Professional status refers to the feeling that one is doing a worthwhile job. Analysis of findings shows that there are several interrelated concepts related to the sense of professional status. The first is the feeling of meaningfulness of the job and the use of one's knowledge and skills.

"I'm glad that I am able to provide the skills and knowledge that I've learned when I was a student and the experience I gained from way back home, I'm able to give the best I have here"... SN2-1¹

"We provide one of the basic services on earth, that could be one of the factor that gives us most satisfaction"... SN4-1

"I am happy that I'm serving the humanity irregardless of the colour, age, sex, ethnic origin or areas, when I was a child I always look on doctors and I was just thinking that one day I could be a doctor. And *alhamdulillah*, now I'm a doctor which is a very good feeling"... SD2-1²

¹ S = Sultan Qaboos University hospital, N = Nurse, First No. = Serial, Second No. = Paragraph No. which contains the quote.

² D = Doctor, rest see footnote 1

“Actually, for me is more on the profession. As far as the profession is concerned, I am very very satisfied, why I choose this profession and all the medical services this entails”...
SD5-1

On the other hand, doctors from the health centres felt that their professional status was affected by the excessive restrictions on prescribing medications for their patients and the consequent referrals for trivial medical problems.

“We can not prescribe for simple skin conditions such as using simple creams and ointments ...we can't prescribe certain drugs such as the usual ACE inhibitors to our hypertensive patients...we are losing our skills and might lose our patients' trust and respect”... (translated from Arabic) HCD³

The second is the feeling that what one is doing is appreciated and valued by patients and society..

“Omani public looking at the profession as a doctor, I think we get a lot of appreciation and respect. For example, if you go anywhere, or I was on holiday and I have written that I was a doctor, and were given some due respect. In that way you are looked up and respected”... RD2-6⁴

“And it's always rewarding to see your patients happy”... SD3-2

The third is the feeling that one is doing something that has an impact on the life of others.

“So far, I can say that I'm satisfied with my job because I can help children ease their pain by playing with them, by talking to them and of course taking good care of them and their needs. You have to explain everything to their parents. So far, I can say that I'm satisfied with my job because I can make the children laugh. “... RN1-1

“I feel I am satisfied with my work because I can help patients with acute myocardial infarction from the first day of admission when they are very critical until they are ready to go home. . . so I feel happy that I have done something nice to the patient”... RN2-1

“I am here for only 1 1/2 years almost but I have long experience of oncology for almost 24 years. I feel that I have the experience and I can give patients what they need to adapt to the nature of the disease and can teach regarding chemotherapy and support for the patient and the family especially those families of patients who receive treatment for long term. This is the major source of my satisfaction”... RN3-1

“I feel satisfied at the end of the day, if I have done a little bit more for the patient than which I have done the previous day. “... SD6-1

³ HC = Health Centres, rest see footnotes 1& 2.

⁴ R = Royal hospital, rest see footnotes 1& 2.

“The most important thing to me is the response of the patient to my treatment. Sometimes I’m able to determine a diagnosis but I can’t find a cure. If you reach a diagnosis, that is very good, but if you are able to cure the patient, this is the best”... (translated from Arabic) HCD

2. Interaction

With reference to the second most frequently mentioned theme, the majority of participants indicated that the relationship with colleagues has an influence on their job satisfaction. The importance to them of collegial relationships, however, results from their desire to have a pleasant work environment.

“I feel that the atmosphere or the climate in a certain unit is the most important for a doctor to be satisfied. I like to work in a unit where the people around me are nice and helpful”... SD1-1

“Having people from different parts of the world working with you in a cordial atmosphere, you could feel a sense of being in the right place”... SD3-2

“I could say, we are comfortable here. The inter-personal relationship, everything is good, I’m really satisfied with my relationships with supervisors, with colleagues and with patients”... SN4-5

Non-Omani doctors and nurses were satisfied with the relationships with their Omani colleagues. They felt that these relationships were important to them to have a tension-free and pleasant work environment.

“The people of Oman are very friendly, and our colleagues, we can say that we have maintained a good deal of relationship. This is the most important thing”... RN4-1

“Regarding the relationship with colleagues, we have excellent relationship both with Omani and non-Omanis”... RD2-2

The findings showed that Omani doctors and nurses, especially those working in the Royal Hospital, were less satisfied with the relationships with their colleagues in general. They indicated that medical work today often requires a team or group, working together as a family, rather than individual effort. However, sensitivity to criticism by others becomes a problem, which threatens team spirit at work.

“I want to mention is that I’m not satisfied with the social circumstances in the Royal Hospital, I don’t feel that we are working as a family. I believe in a hospital, we should work as a family and if we work as a family, this will lead to provision of good quality care to our patients”... RD1-2

“About my colleagues, some of them are good and some of them they don’t like to hear the truth. Nobody likes to hear the truth. The problem everybody likes to polish (flatter) somebody and that’s all, which is not my type”... RN2-2

Omani doctors and nurses indicated that their relationships with their non-Omani colleagues are good. The existence of differences in nationality among colleagues was not found to be a determinant of job satisfaction. What should be emphasised here is that the findings show that Omani doctors and nurses generally do not differentiate between Omanis and non-Omanis with regard to personal relationships with colleagues. Therefore, nationality is not a determinant of the relationship; rather, it is individual, personal qualities that seem to matter to them.

“I have good Omani friends as well as good non-Omani friends in the hospital. So I have no problem with that. But in general, I feel that there are some gaps in the relationships between doctors, which dissatisfy me”... RD1-4

“We have no problems working with our expatriate colleagues. We have good relationships at personal levels as well as at professional levels. We are helping each other and support each other”... (translated from Arabic) HCN

The findings show that several concepts related to the relationship with patients affect job satisfaction. These concepts reflect the attitude of patients toward doctors and nurses. They are appreciation, trust, compliance and respect. The tendency among doctors and nurses in this study was to indicate positive rather than negative attitudes of patients. Therefore, they considered their relationships with their patients as a great source of satisfaction.

“I’m also very happy with my patients here in comparison with other patients from Jordan, it is easy to deal with Omani patients and very encouraging and I did not face any problem in teaching patients or compliance to their medications”... RN3-3

“As I have no much experience in exposing to people of other nations but I am happy here that people are very well, they understand the matter clearly. They try to respond to the message up to their limitation. If I compare this nation to my nation, I should put Omanis ahead”... SD2-6

“Our patients are very nice, they trust us and appreciate our work. The most rewarding feeling is when you sit down with the patient and deal with him or her. Simple people feel happy to see you”... (translated from Arabic) HCD

“The working relationship also is satisfactory and Omani patients are actually much more friendly people than in Kuwait where I worked before I came here”... SN3-2

Also the non-Omani staff were satisfied with their relationships with the Omani people in general. They found Oman a nice and peaceful place. It seems that their satisfaction with the social circumstances overcame any disappointment with other factors.

“People in Oman are also very good and for us this is also very good place because it is safe. We will not be able to stay more than 10 years if you are not contented with the place because it is quiet and peaceful. We also appreciate the people because they are peace-loving people and you can also talk to them nicely and you can get such nice response from them”... RN1-2

“Omani people are very friendly people, honestly, no comments really. I had the chance to work in few places, so I feel, it is very nice set up to work here because we have our freedom here although we come from different parts of the world, religiously or anything for that matter, we have our freedom. We are not forced to do something, which we don't want to do. That is really the good part of it”... SN2-2

3. Workload

A significant theme that appeared during the discussions was workload. Workload refers to the amount of work and the time spent on work related activities.

Almost all nurses who participated in the focus groups expressed strong feelings of dissatisfaction and frustration because of the clerical and paperwork. Also other non-nursing tasks such as stamping files, reviewing bills and pulling trolleys were dissatisfying, reinforcing the view that nurses prefer tasks requiring patient contact. The nurses stated that paperwork and non-nursing tasks increase the workload and negatively affect the quality of patient care.

“The negative aspect here is the paperwork. There is lots of paperwork we are doing and sometimes you think why I do this. You find a lot of things, which are unnecessary. No benefit for the patients. Just maybe because we are asked to do this”... RN3-2

“Too much routine paperwork, increasing our workload; not only that, but it takes us from our patients. I feel I have not enough time to assess my patients properly, especially children coming for vaccinations and I feel I’m not doing enough health education. This is really a potential source of frustration and dissatisfaction”... (translated from Arabic) HCN

“Oh’ yes, there is too much unnecessary clerical and paper work. There is wasting of time and effort of the staff while you can use this time to the patient or other activity, which can add to the patient care. Sometimes the content of the paperwork does not fit to what the patient has and what’s going on. When we evaluate a mistake or a problem, who will depend on the paperwork? It will not help. So, this is the problem”... RN3-3

“Paperwork is really a frustrating factor For example, the latest which was introduced to us, that the nurse has to sit down and lists the drugs and how much does these cost, which is called the billing system and this is really not a nurse duty. This is somewhat the finance department’s duty. So this is the amount of paperwork, this is one example, but the amount of paperwork is really tremendous on the nurses”... RN5-2

“So these things takes our skills away, meaning we tend to do so much of clerical things, pulling trolleys, taking trolleys, there are no ancillary staff to do most of these pulling things which doesn’t happen elsewhere. You don’t need a skilful person to do these things. You can utilise us for a better thing because you have taken the best here so the best can be utilised for the best purpose. That’s how I feel”... SN2-2

A further dimension to the problem was highlighted by two nurses from the University Hospital; they were very conscious of the hospital’s potential role, not only in patient care, but also in patient education, and felt that time taken up with non-nursing duties took time away from that activity.

Nurse SN2-2 expressed the view that an important aspect of Obs/Gyne work is teaching patients, but lamented that this role was undermined by the burden of clerical work, which took up too much time. Her point was later taken up by a colleague, who commented:

“We don’t have enough time to communicate with patients because of too much workload. . . like teaching them about breastfeeding, birth spacing, how to care for the baby and for the pregnant lady”... SN5-2

They were supported in this view by a specialist from the same hospital, who was also concerned about the lack of attention to patient education. Working in the University Hospital, he was particularly conscious that the hospital should play an educational, as well as a therapeutic role. Ideally, he thought:

“A patient. . . when he enters the University Hospital, he becomes a student. . . he should be educated about how he should be eating, what drugs he should be taking. . . so when he leaves the hospital, he is not only taking a prescription and medication, he’s also taking good information. . . how to live a healthier life”... SD3-2

Referring back to the comments made earlier by his nursing colleagues, he expressed his frustration that they were spending time “taking the files here and there, rather than that time being used for patient education”. Since nurses did not have time to advise patients on a healthy lifestyle and on their medication, the result, he said was that

“the patient goes back home the same as he came in, so the hospital has not served the function of a University hospital, quite disappointing”... SD3-2

On the other hand, nurses expressed feelings of satisfaction with regard to the duty hours and the shift patterns. They have three shifts: Morning is 7 hours, afternoon 7 hours and night is 11 hours. But night duty is generally compensated and they have about two days off every week.

“If we work so many hours a week, we have some many days off. That is the system here... at least we are getting 2 offs every week”... SN3-3

“For me, I am contented as we are also doing the shifting and it is just the right thing because we have days duty and we also have days off which is quite compensated”... RN1-2

It is known that stress and long working hours are characteristics of medical practice. Doctors everywhere have on call duty, must be available at odd hours and sometimes work when other people do not. This is true for doctors in Omani hospitals as well. In the Royal Hospital, working hours are from 7:30 a.m. until 2:30 p.m. In the University Hospital, the workday is from 8:00 a.m. until 4 p.m. In the health centres, there are two shifts, from 7:30 a.m. until 9:30 p.m. Doctors in the hospitals also have on call duties. In both University Hospital and Royal Hospital, on call duty is twelve hours that start at the end of a working day and end at the beginning of the next working day. This requires the doctor to work a thirty-six hours shift because he or she cannot take

off the day after a night on call. This is a source of extreme job dissatisfaction amongst doctors in both hospitals especially the junior doctors. Consultants usually have fewer on call duties than house officers and registrars, moreover, consultants often are not required to spend their on call hours at the hospital; they come to the hospital only if they are called. House officers and registrars usually cover for the consultant, and when they cannot handle a case, they call the consultant at his/her home and ask him/her to come to the hospital.

“The hours of on-call are quite long, especially for junior doctors. Sometimes you are on call for 36 hours, continuously, and there is no compensation for overwork. They are not paying us for overtime and no duty-off”... RD1-2

“There’s no compensation for the extra work or additional work that you do, for example you do on-calls, you do week-ends, you do work on holidays. if you have intake today, today you have to work as well as next day you have to come. Also when we work on holidays, there’s nothing either monetary or compensated holidays”... RD2-2

“And also another negative point especially in our department is the one in four intakes, which does not give us the opportunity for back up when we are under pressure and also it does not give opportunity for research”... RD2-2

“And about the duties, that are sad, we have problems, sometimes you have to take afternoon duties alternately”... RD3-2

“Working hours, now I got a promotion. But before I work 104 hours/week as SHO in Medicine. 36 hours continuous work and does not leave me even a free weekend to go to.... I was post on call on Tuesday, I hit the highway, tired and exhausted and by the time I reached home I am still exhausted and I know I’m again on call on Friday. It has been a period of time and my feeling was very very bad”... SD1-2

Besides working hours, workload also refers to the amount of work one has to do, including patient care and other activities. The findings showed that the doctors who participated in the discussions were dissatisfied with patient load, especially doctors in the health centres who used to see 70-80 patients every day in one shift. Doctors felt that a heavy workload might have negative implications for the quality of care, especially when too many patients are seen in a short time. Additionally, some departments, especially in the University Hospital, have a shortage of middle grade doctors (senior house officers, SHOs) which also results in a heavy workload.

“We have too much load...you always have to rush...During the shift, especially morning shift, I must see too many patients. Because there are many patients to be seen, I see every patient for only three or four minutes and the next patient is ready for me. My average number of patients per day is about 75 patients. This is unsatisfactory to me because I want to spend more time with each patient”... (translated from Arabic) HCD

“I feel we have a too much load in the clinics, which makes us see patients very quickly and no time to take proper history and to do proper examinations. Several times we have been talking about this to reduce the load in the clinic but nothing has been done”... RD1-2

“The ratio of senior medical staff are more compared to very few senior house officers. Some departments they have shortage of staff and as a result of that they have too much workload”... SD1-11

4. Pay

Interesting discussion took place on the issue of pay. Pay is remuneration (in Omani Riyals) and fringe benefits received for work done. The majority of doctors and nurses in the three focus groups were dissatisfied with pay. They felt that their salary scales do not reflect the hard work they do or extended years of training and education they have to go through. There were more feelings of dissatisfaction and frustration among doctors and nurses working in the Ministry of Health (Royal Hospital and health centres) who receive less pay than doctors and nurses working in the other hospitals involved in the study.

“But regarding pay, for me, I feel that I am not well compensated with the work I have done”... RN1-2

“I’m dissatisfied with my salary which has remained the same since I joined here. The annual rise in salary is the same for everyone. There is no differentiation between those who work hard and well and those who do not care. We can’t complain because we are expatriates”... (translated from Arabic) HCD

“I’m an Omani doctor, specialised in Family Medicine since June 1998 but there was no change in my salary. My salary is the same as the salary of any newly graduated doctor. This is a potential source of dissatisfaction to me. I mean it is ridiculous, if they do not recognise their own training programmes, why are we wasting our time and career? There are many of my colleagues trapped in the same situation, but what can we do? We have complained several times, but nobody listens to us”... (translated from Arabic) HCD

“Our friend here has talked about the salary. As much you work, they don’t appreciate it. You give to the patient and it is appreciated. But for yourself as a Ministry of Health, they don’t recognise who you are and how much you did. This is the problem with Ministry of Health, you work hard, you don’t work hard, you are lazy, you are sleeping, they don’t appreciate it, and they don’t see you work. So sometimes, you work for years and years,

you're fed up. I can say straightforward, I am fed up with this MOH and one day I will move out of this place"... RN2-2

"Coming to the income, I think income is almost stagnant. For example, how many number of years you have worked, it remains the same and if you look at the cost of living which has gone up enormously. For example, when I came here the cost of milk powder was one and a half Riyals and today it costs around 4 Riyals but the salary is the same"... RD2-2

"For the income and promotion, a bit negative because we become stagnant in one post and that gives us a little frustration"... RD3-2

There was also a wide feeling of inequity in pay, especially among Omani doctors and nurses working in the Royal Hospital and in the health centres. They feel that they are paid less than their colleagues in the University hospital with the same qualifications. Moreover, there was a feeling that pay is inequitable even within the same organisation (Royal Hospital) where nurses and doctors of some nationalities (Western) get higher salaries. Omanis are frustrated because they are paid less than some nationalities with the same capabilities.

"The salary we are getting when the expatriate, they are doing the same job, their salary is higher, it is double than our salary. For example, when the expatriate will come, they are getting 800 – 900 and we're getting half of that. Either you work 15 years, you work for 20 years, is zero. And the same job we are doing and we can do better for that, but you don't get it. So this is ridiculous"... RN2-3

"They are not looking into the qualifications of the person. They look more to the nationality. For example, if I am a British, with my qualifications, maybe I could get double double my salary. But even if I have a master degree, and I was treated like anybody who just have 2 years in school. So we can say that this is nationality wise and not qualification wise. This is really dissatisfying point"... RN4-2

"Yes. Most Omani doctors in Ministry of Health are dissatisfied with their present salary especially the junior doctors who get much less than their colleagues in the University hospital and who have same qualifications"... RDI-6

5. Promotion

A significant theme that appeared during each group session was promotion. Lack of promotion was a major concern and source of dissatisfaction and frustration for all nurses who participated in this study. Promotion of expatriate nurses is almost non-existent and for Omani nurses, it is very slow and sometimes never happens. Also

doctors, especially those who are working in the Royal Hospital and in the health centres, were concerned about their promotion.

“I have been working here for 13 years and the promotion according to work wise is not well recognised. The promotion is not a ladder type. Whatever they hire you as a position like that and you can not go to the next position because they are telling you are hired only to that position... We are sending money to our families, so we have to work as our salaries here are more higher than what we are earning in the Philippines, so for the meantime, we are just contented with what we are having”... RN1-2

“At the moment they might ask you to act in that position and they will not give you anything extra and they will not promote you to the next position”... SN3-4

“The nursing and the medical profession, as a whole, is a different type of job. You cannot compare me in the hospital dealing with HIV patients, hepatitis and I think sometime we have been dealing with haemorrhagic fever, and we don't know anything about it with somebody in another job. We have been subjected to different types of risks. And yet, in the promotion, in the pay, there's nothing extra”... RN5-2

“But if you come to the promotion wise, because I have been working here since 1987, and I was recruited as a junior specialist and I remain as a junior specialist almost until 1997 December. Only now recently they promoted me retroactively from 1997 December but there's no monetary benefit”... RD2-2

The promotion system is based on qualification, and no importance is given to the years of experience and hard work.

“Probably the promotion depends on what certificates you have and not mainly on your performance”... SD1-3

“Additionally, promotion is very slow and I don't think anyone as doctors can be promoted without additional degree even if you work for 10, 15 years, you'll be medical officer and your salary will be the same”... RDI-6

6. Professional Development

Nurses in each focus group cited an important theme, namely, professional development. The variety and complexity of tasks and equipment in nursing constitutes a challenge for nurses in their effort to provide the best care possible. To do so, they must have adequate training. In our focus groups, nurses expressed satisfaction with the training and in-service education provided to them. Specifically, they were satisfied with the opportunities currently provided, to improve and extend their knowledge and skills.

“And since we work in an educational organisation, we have to keep in touch with the trend which is another encouraging factor because we are clearly updated currently with so many things and we tend to attend lots of symposiums, seminars, conferences, and so on. So these are big advantages to be known”... SN2-2

“Positive thing is that here in SQU we have the chance to learn more than our colleagues who are not in the University hospital”... SN5-2

“I would say, I’m very happy with the ongoing education here for the nurses”... SN4-2

“Working for these years, I have got a chance for expansion, for updating my training. I have attended different courses”... RN5-1

“I’m quite satisfied with the in-service education. There is always something in this regard, courses, workshops, and conferences. These educational and training activities are attended by Omani and expatriate nurses”... (translated from Arabic) HCN

Junior doctors (doctors in training), on the other hand, were dissatisfied with the opportunities available for professional development and growth. Success in modern medical practice is measured by the ability to specialise and sub-specialise (Freidson, 1980). Most of the Omani doctors expressed dissatisfaction with the speciality programmes available locally. These programmes are poorly structured and poorly carried out. The main obstacle is a shortage of highly qualified senior staff to provide training in subspecialties. This shortage in qualified and motivated staff to provide specialised training, combined with poor national strategy for post-graduate medical education and lack of a clear policy for training doctors, was found to cause frustration among Omani doctors who wanted to improve their professional status. Additionally, some Omani doctors in the Ministry of Health felt that there is some discrimination in sending doctors abroad for higher qualifications; those who have good connections in the Ministry are most likely to get the opportunity.

“Unfortunately, we don’t have well structured speciality programmes for postgraduates. And even if you enter these programmes for four or five years you will be the same, there is no change in your position through these years and after you complete the period what do you get? Nothing! I think there is a lack of a clear policy for training doctors and this is dissatisfying and frustrating”... (translated from Arabic) HCD

“We have discussed it a lot in our meetings and we have started on our own basis and we feel very strongly that, except our morning meeting where we present our cases, there’s no definite system of our teaching in which our senior are involved”... SD5-4

“What we missed here is the middle grade. We have good Registrars, Senior Registrars who can teach but we don’t have enough number and this is what we basically need”...
SD3-7

“The last point about scholarships, as they said, there is some discrimination, not between nurses and doctors but there is discrimination between groups of people, some people because they have personal relations in the Ministry, or they know somebody big in”...
RD1-2

That the situation may be more complex, however, than simply a matter of provision or lack of it, emerged in the discussion at the University Hospital. In a sustained exchange among the researcher, as group facilitator, and two doctors, a specialist pointed out that as qualified professionals, doctors should not expect to be “spoon fed”, but had to take responsibility for their own development and learning.

“Hopefully, after the completion of your degree, is to . . . learn on our own from the environment that we fit. . . you don’t need teaching; what you have to have is learning.”...
SD3-5

He claimed that SHOs are to some extent to blame for their lack of development, because they do not take advantage of the learning opportunities available.

“We would hardly see good numbers of SHOs in Radiology meetings. We have Pathology rounds and we would hardly see SHOs there.”... SD3-6

In his view, the lack of monitoring of attendance and the absence of a system of evaluation of SHOs were responsible for this negligent attitude.

His colleague, however, whilst not disputing the learning opportunities available through, for example, association with the Registrars, felt that there was still a need for more formal, systematised education. Moreover, he argued that non-attendance at meetings and the like might be due to preoccupation with other duties.

“We are involved in our work. The Radiology meeting used to be at 3 p.m. and we’re carrying our pagers at 3 o’clock and we’re writing the discharges.”...SD5-7

This was an illuminating exchange which indicated that professional development is a multi-faceted issue, involving not only administration and workload, but also, individual expectations of the professional role.

7. Administration

A number of administrative issues were raised in the discussion. Administration here refers to management policies and procedures put forward at the employer level (e.g., Ministry of Health) or at the hospital level (hospital administration in general or the medical or nursing administration). The findings regarding administration were mixed. Some of the nurses in the focus groups were dissatisfied with policies at the employer level regarding promotion.

“And about regulations and policies, I think the Ministry of Health don’t update this. They don’t talk with the Civil Service to change these rules. They have to do something because they will lose a very good people and staff in this place, non-Omani or Omani. But they don’t think about it. They think that they can recruit million people expatriates if one Omani can live. They don’t think ahead, they are only thinking for today”... RN2-2

Also, nurses felt that medical and nursing administrations discriminate in their treatment between doctors and nurses. Doctors are treated better than nurses, and are listened to more than nurses.

“The doctors are always superior and they have no way to be touched. For example, just reporting an incident in this hospital, if a nurse failed to report an incident, which happened for a patient, the second day, should be in the Director general’s office. But doctors are rarely writing incidents...Look at the meetings which take place, sometimes the nurses have to be present and I am one of the people who attend many meetings, I voiced but how much is listening to me? But a very new junior doctor, who have just graduated yesterday, say something and they listened to”... RN5-2

On the other hand, nurses were satisfied that they received the needed help and support from the nursing administration.

With regard to doctors, they desire to have more influence on policy and decision-making. This feeling is stronger among Omani doctors who want to serve their country in a better way.

“So I think that some of these administrative regulations and policies are not only hindering, they are also providing financial damage to this institution”... SD3-3

Also, some doctors were dissatisfied with the organisation of health services at the department level or at the hospital level. These hospitals seem so far to have been unable to establish an effective appointment system.

“One of the most dissatisfying account for me was the Outpatient’s Clinic, when all patients come together at 8 am and wait until they have seen at 12:00. This is not good and I think it should be timed”... SD4-8

“Another problem is maybe that we don’t have the facility as one-stop journey. We have patients coming back and forth, if a patient comes today, you organise the investigation and you can only see them after 2, 3 weeks or a month, again, it goes on and on. There should be some sort of one-stop clinic”... RD2-2

8. Working Conditions

Interesting points appeared related to working conditions. Working conditions refers to physical conditions of work and equipment necessary for work. The majority of doctors and nurses in the two sessions held in the University Hospital and Royal Hospital expressed feelings of satisfaction with regard to working conditions in these two hospitals.

“Positive is the working conditions are excellent because we have got most of the facilities here, sophisticated machines and so on and so forth”... SN3-2

“I just visited hospitals here but certainly the supplies here are always available, when you ask for them, you always get them most of the time. Personally, I have the opportunity to work in Saudi Arabia and then Muscat, so I find especially SQU is good and we are quite up to date in that way”... SN2-2

“Royal Hospital, has an excellent facility especially we have all the state-of-the-art gadgets and facilities to investigate and manage patients”... RD2-2

However, in the third session, doctors and nurses from the health centres expressed extreme dissatisfaction with the working conditions in their health centres. The buildings are small with small waiting areas for patients and there are no rooms for meetings, rest and praying. They stated that the space available affects the extent to which they are able to use their skills, and affects the morale both of doctors and nurses and of the patients. The equipment available (e.g., ECG machines) is very old and some machines are not working. Also, there is only one ambulance for three health centres.

“The most dissatisfying thing for us is the building, it is very small. We have no room for meeting, no prayer room, and no place for rest, no place for coffee. We are working like machines, with no rest. In the hospitals, they have canteens and they have time for rest”... (translated from Arabic) HCD

The point made by this doctor was taken up by one of his colleagues in the group, who responded by saying:

“What the doctor said is true. We as nurses are working in the same waiting area as patients. There is no privacy. Also we have trouble with equipment. This equipment is old and some of it is not working at all. And imagine, there is only one ambulance for three health centres! This is really a disaster in case of emergency situations. These things actually are frustrating and put a lot of stress and pressure on us”... (translated from Arabic) HCN

9. Teaching

Although few of the participants referred to the area of teaching, it is worth mentioning here because those participants who are involved in teaching medical or nursing students expressed a great feeling of satisfaction. Some doctors and nurses like serving as a role model and mentor and watching students improve their skills. Others gain satisfaction from sharing their clinical experience with students and residents.

“Another important thing that doctors are happy about is teaching, I find a lot of opportunities to teach. We have students coming from the university whom we teach on a regular basis and we have the residents whom we always discuss with them, interact with them not only to teach but also to learn from them. Also we have opportunities to teach the membership candidates and which gives a lot of satisfaction”... RD2-2

“For me there are two important issues. One, for me to feel that I am satisfied is that I am delivering the best medical care and second is I am able to deliver this knowledge to others

which are not known to them and create a team in my subspecialty that will, in fact, operate in my absence"... SD4-1

"Another thing is since we have students, we are able to help them in a possible way we could help them and a very rewarding thing because you are able to give them something which you have"... SN2-2

10. Autonomy

Although few of the participants referred to the area of autonomy, probing questions that were asked led to several, but not all, participants, revealing more, with statements like:

"Coming to grading the freedom of work, I think I have to be aware that excellent facilities and there's no difficulty or there's no restriction on the patient management"... RD2-2

"No, I don't have. I work in a unit where they give full responsibility to manage and to decide whatever I choose to decide"... RD1-7

"Professionally I do surgery and see patients in the clinic, I can treat patients in the ward but for immediate decisions, that would be for the senior consultants or you may take decisions for justified reasons"... RD3-3

"No, I mean if you know your nursing care task, you don't need to ask. There is a task that you can do it yourself there is a task you have to ask your seniors. So it depends. But we happy with that"... RN2-4

"In certain decision, I think you should be able to take it yourself, without even going to a doctor who doesn't even know what you are talking about to countersign the paper"... RN5-3

These responses reflect a dichotomy between two types of autonomy, similar to the distinction drawn by Kravitz et al. (1993) who called them technical autonomy and socio-economic autonomy. Technical autonomy refers to the ability to practise according to one's judgement. Socio-economic autonomy refers to the ability to influence policy in the organisation. The findings from the focus groups showed that doctors were satisfied with technical autonomy and more or less dissatisfied with socio-economic autonomy as mentioned earlier under administration. Nurses expressed satisfaction with the amount of autonomy (type one) they could exercise, possibly because they have more opportunities to exercise personal judgement and self-directing

control of care. However, sometimes they felt that doctors who wanted things to be done on their own way threatened their sense of autonomy. Nurses were, like doctors, not satisfied with socio-economic autonomy.

11. Job Security

The other area that was mentioned less frequently is job security. Most expatriate nurses who participated in the focus groups expressed feelings of job uncertainty. Their comments merely indicated a sense of overwhelming bleakness and uncertainty.

“Negative aspect, as she told again is job insecurity. That is always the bad part, today your job is there and tomorrow it won’t be there. Even if somebody misbehaves to you, you’re not in a position to say that you didn’t do the right thing. You have to swallow it. I worked in Kuwait, once you go there, you are actually a permanent member, unless you commit a grave mistake or some serious offence, otherwise you are considered as a permanent member. But here it is on a contract basis, every year or every two years, and most of the people, there’s so much of the internal politics they are making inside the hospital all because of this way. Each one will try to pull the leg of the other and they will try to impress more”... SN3-4

“We feel that there is no job security and sometimes we feel almost that we are going back to our country. We believe as Muslims that the world is not in anybody’s hand but it is in one hand. But still as a human being, your feelings should be asked. Regarding the contracting, there is a lot of stressing news around you”... RN4-1

12. Job-Induced Stress

In each group session, the nurses cited a number of factors contributing to job-induced stress with five factors mentioned most often. These factors are:

1. Increased demand by patients’ relatives
2. Conflicts with doctors
3. Contact with dying and chronically ill patients
4. Communication with patients and patients’ relatives (language barrier)
5. Paperwork

Typical comments by these nurses included:

“For example, the father will come, the doctor will explain, the next round uncle will come, again asking for explanation and we are in the middle of that because they will beg on us, we want the doctor, we want the doctor”... RN1-4

“Sometimes we face problems with physicians, they wanted to apply their own way. Sometimes you treat them in the work as a body of nursing and the staff will not go beyond more above his. You can not do this, you cannot do that and you have to come back to me. They want to do their own way”... RN3-7

“At times before, the ward is full of sickle-cell patients and in that case in each corner you have to get a pain. Sister, pain, pain, pain, the infusion pump is alarming and the syringe pump alarms and in that case we do have mental stress”... SN4-6

“Because we wanted to explain to them in a simple way but then we cannot. Because we are afraid, we might say other thing. So small things, they wanted to ask for a doctor where in fact we could solve it. But because of this language barrier, it is always a problem”... RN1-5

“Paperwork is very stressful”... RN1-3

Also, doctors in the sessions cited a few factors that they felt were most stressful to them as doctors. These factors are:

1. Night calls
2. Interference with family life
3. Contact with dying and chronically ill patients
4. Demand from patients' relatives

“Regarding calls, I hate calls. Even my 3-year old girl is scared if I have calls and keeps on asking me when I am on leave. For me it is a nightmare but I am happy with my work, it is challenging job for me”... RD1-10

“I don't think that any doctor lived without stress. Another thing is the social stress, I don't think that we have given our kids enough time to teach them than other people working outside the medical field. We don't have enough time for our families”... RD1-9

“But at times I had problems facing death of a patient especially when it comes to an unexpected death of a young patient. That has really stressed me at times. I remembered two occasions that has really given pressure on me generally”... RD2-10

“For me the main problem is the relative of the patients, they want to do all things on the same day and another thing is we usually get calls from different departments”... RD3-5

Summary

This chapter has presented the findings from focus group interviews with doctors and nurses from hospitals and health centres. Interesting findings were revealed in relation to the job satisfaction/dissatisfaction, which can be grouped into three categories. The first category contains two themes related to the professional content of the job, with which there was general satisfaction. Participants were happy with job status, not only is the sense of respect accorded them by others, but in terms of the rewarding feelings that resulted from using their skills to help others. In a similar vein, they also derived satisfaction from teaching. A second category contained five themes, which evoked general feelings of dissatisfaction. All these related to human resource management issues. There were problems of excessive workload, particularly paperwork (for nurses) and long hours on call (for doctors); pay was perceived as inequitable, had not kept pace with the rising cost of living, and did not reflect work quality and experience; promotion opportunities were very limited; there were organisational problems in relation to appointments and recruitment, and expatriates were concerned about job security.

Finally, four themes emerged which were perceived differently by different groups, or met with mixed feelings. Interaction with colleagues was perceived favourably by most participants but less by doctors in the Royal Hospital; professional development was perceived more favourably by nurses than by doctors; working conditions were sources of satisfaction in the hospitals, but of dissatisfaction in the health centres; and there was satisfaction with technical autonomy, but not with socio-economic autonomy.

As regards job-induced stress, two situations, namely, demands from patients' relatives, and contact with chronically sick and dying patients were stressors for both

doctors and nurses. Additionally, nurses felt stress resulting from communication problems and paperwork, while doctors' main stressors were night calls and interference with family life.

These findings, together with those from the questionnaire survey, will be the focus of further discussions and interpretation in the next chapter.

CHAPTER SIX

DISCUSSION

This study uses quantitative and qualitative approaches to explore the job satisfaction of doctors and nurses working in various hospitals and health centres in Muscat region, Oman. The principal aim was not to test theory, but rather, to examine and explore the determinants of job satisfaction of doctors and nurses, with particular emphasis on nationality (Omani and non-Omani) and organisational differences.

The absence of a specific theoretical model to be tested, however, does not eliminate the role of prior theory and research in the research process, particularly in the determination of scales to be used and questions to be asked, and in the analysis and interpretation of findings. Both the analysis and presentation of findings of the survey questionnaires in Chapter Four and the focus groups in Chapter Five, and the discussion and interpretation of findings in this chapter have been guided by existing theory and scholarly research done prior to this study. For organisation, the following discussion is presented in two sections. The first section deals with the theoretical propositions concerning job satisfaction and some of its components. The second section deals with results in regard to doctors and nurses.

6.1. Theoretical Propositions

The findings of this study regarding determinants of job satisfaction of doctors and nurses are consistent with the suggestions of “content theories” of job satisfaction. That is, job satisfaction was found to be influenced by both intrinsic and extrinsic factors. The effects of different types of factors were in some cases consistent with Herzberg's two-factor theory, but in other cases they were not. Doctors and nurses in this study considered relationships with colleagues and co-workers as a major source of

job satisfaction, thus contradicting the two-factor theory. In Herzberg's two-factor theory, relationship with co-workers is a hygiene factor. The hygiene factors are those conditions that surround the job. When hygiene factors are not present, the employee will be dissatisfied with the work. However, when hygiene factors are present, they neither produce job satisfaction nor serve as motivators. Furthermore, while doctors and nurses were dissatisfied with pay, a hygiene factor, there was also evidence to suggest that a motivator factor, promotion, contributed to job dissatisfaction. Working conditions, a hygiene factor (and therefore according to Herzberg a dissatisfier) was found to be a positive source of satisfaction for doctors and nurses in the hospitals, but a source of dissatisfaction for those working in the health centres.

Process theories of job satisfaction were also found useful in interpreting the results of this study. Locke's Goal Setting Theory which suggests that workers' values have an important role in job satisfaction was particularly helpful; he suggests that the achievement of more important values produces greater satisfaction. The findings of this study indicate that values held by doctors and nurses determine the importance they assign to the various aspects of their work. The "equity theory" provides guidelines for understanding doctors' and nurses' satisfaction (or dissatisfaction) with pay. Also, "expectancy theory", which suggests that the workers' expectations influence job satisfaction, was helpful in the interpretation of the results. Omani doctors and nurses seeking higher education may have expectations regarding their abilities to influence policy and have a leadership role in their organisations, and when these opportunities are not available to them, they feel dissatisfied.

The findings of this study regarding the determinants of job satisfaction of doctors and nurses are consistent with the results of previous studies of doctors and nurses. However, the combination of methods (survey questionnaires, open-ended questions and focus group interviews) utilised in this study provides in-depth

understanding of each of the determinants and its indications for doctors and nurses. Because most previous studies used surveys to study the job satisfaction of doctors and nurses, such in-depth exploration has not been available before.

Discussions of the findings of the different methods with regard to determinants of job satisfaction of doctors and nurses are presented below:

6.2. Determinants of Job Satisfaction of Doctors and Nurses

The findings from the survey, content analysis of the open-ended questions and qualitative analysis of the focus group interviews show that several factors affect the job satisfaction of doctors and nurses. These factors are categorised into personal and background characteristics and organisational and job-related factors as follows:

6.2.1. Personal and Background Characteristics

How do personal and background characteristics influence the level of job satisfaction among doctors and nurses in this study?

Many investigators have examined the personal variables that influence the job satisfaction of doctors. The most common personal factors mentioned in the literature are age and sex (gender). In the present study, nine personal and background characteristics (age, religion, marital status, salary, designation, weekly working hours, work experience, nationality and type of health institution) were found to show significant association with job satisfaction on the bivariate level. It is not known, however, if this association with job satisfaction, especially with regard to religion, marital status, work experience and nationality, could be attributed to other personal factors, i.e. these factors were not operating in a vacuum and they might have interrelationships with one another. In the multiple regression analysis, controlling for the relationship of other independent variables, only salary (lowest level of salary; that

is 800 OR or less) and job-induced stress showed significant, inverse associations with job satisfaction. Overall, only 20% of the total variation in job satisfaction was explained by these two independent variables.

With regard to nurses, Hinshaw and Atwood (1984), in their extensive review of the nursing literature, identified several personal factors relevant to job satisfaction. These included: age, sex, intelligence, education, experience as a nurse, tenure, and position in the hierarchy. In the present study, three factors were found to have significant associations with nurses' job satisfaction on the bivariate level. These factors were period worked in Oman, type of practice, and type of health institution. However, in the multiple regression analysis three independent variables were significantly associated with job satisfaction; they were job-induced stress, post (senior nurse) and period worked in Oman (7 years or less). These three factors explained 30% of the variation in the job satisfaction. The findings suggested that nurses who have been in Oman for longer periods (more than 7 years) and those who were juniors (staff nurses) were less satisfied with their work.

There are unquestionably other characteristics of both the organisation and the individual that relate to job satisfaction, some of which can be inferred from the focus group study. However, the impact of personal factors on doctors' and nurses' job satisfaction requires further study.

The following discussions have attempted to interpret the findings with regard to the personal factors of doctors and nurses, and link them with findings from relevant studies.

Age

The results show that age was associated with the job satisfaction of doctors: older doctors had higher mean satisfaction scores than younger doctors. Other studies of doctors have also shown older doctors to be more satisfied than younger doctors (Richardson and Burke, 1991b; Hadley et al., 1992; Kravitz et al., 1993; Aasland et al., 1997). Pastor et al. (1989) found younger doctors (under 40 years) to be less satisfied with their work than older ones, and suggested that this may be because younger doctors are more concentrated in general practice and salaried positions with exorbitant work load and experience more conflict between work and personal life. Another interpretation was offered by Burns et al. (1990). They, too, found greater satisfaction among older doctors and argued that older doctors have time to establish greater leverage at hospitals in which they prefer to work and to which they are committed.

On the other hand, there was no statistically significant association in this study between age and nurses' level of job satisfaction. This finding is consistent with findings from other studies. Blegen's (1993) meta-analysis of research on nurses found that age was included in the same number of studies as education. Like education, it had only a small effect on satisfaction levels. In the same way, Sanger, Richardson and Larson (1985) concluded that the length of employment and age were not associated with job satisfaction. Nurses, regardless of age and years of experience, are similar in their work-related desires. They want an increased variety of work, greater participation in work-related decisions, improved communication about work, and greater advancement opportunities (Price & Mueller, 1981).

Sex

With the increasing number of women entering medicine as a profession, the question arises whether a relationship exists between gender and job satisfaction of

doctors. This study found absolutely no statistical difference in the job satisfaction of male and female doctors. Few previous studies that have focused on practising doctors included enough women to analyse them as a group. In those few studies that did have sufficient women in the sample and that attempted to measure satisfaction, the results have been contradictory: some studies seem to indicate that gender has little or no effect on satisfaction, while others note that female doctors seem less dissatisfied than male doctors. According to Cooper et al. (1989) women in general practice are more satisfied with their work than their male counterparts, and are affected more by family-related than by work-related stress factors. Cooper et al. attributed this to the greater tendency among female GPs to work part-time.

However, much of the literature (Schulz and Schulz, 1988 and Cartwright, 1978) suggests that female doctors are less satisfied with their work within medicine. Schulz and Schulz (1988) stated that female doctors are not immune to the societal forces of sexism. They suggest that, when dealing with the older male dominated medical hierarchy, younger females experience greater levels of sexism, which leads to dissatisfaction. The female doctors in the current research sample may have empowered themselves to a point where the forces of sexism had less impact on them. Further, doctors have earned status that many of their counterparts in other occupations may not have achieved. Another possibility is that the medical education system and professional socialisation involved in becoming a doctor create a monolithic model of doctor attitude, one that sex does not affect.

Also, there was no significant difference in job satisfaction between male nurses and female nurses. A possible explanation for this finding is that the nursing profession in general and the sample for this study in particular is predominantly female. Gender is frequently mentioned in satisfaction studies but the results are mixed (Stamps, 1997).

Gender is of interest because of the nature of the nursing profession, which is predominantly composed of women. According to Stamps (1997):

"Although nursing can be accurately categorised as a female-dominated profession, this only means that women hold the highest number of positions, not necessarily the most powerful ones. For nursing, the picture is even more complicated because of the traditional male-dominated medical profession and hospital hierarchy in which most nurses work" (p. 35).

This comment, however, is not true in Omani hospitals, where the nursing administration is independent of the medical administration and is composed mainly of women.

Religion

The findings indicate statistically significant difference between Muslim and non-Muslim doctors in terms of job satisfaction levels. 76.1% of non-Muslim doctors were satisfied, while 61.3% of Muslim doctors were satisfied. This means that non-Muslim doctors were more satisfied than Muslims. A possible explanation is that most of the Muslim doctors are Omanis (55%) who expect that their indigenous origin will entitle them to higher outcomes from their job. At the same time, even the expatriate Muslim doctors expect to be treated better than non-Muslim doctors in terms of position, salary and promotion, because of the relationship of Islamic brotherhood. If such expectations are not met, dissatisfaction may result. Another explanation is that the non-Muslim doctors are mostly Indians who achieve a satisfactory return from their job in Oman in comparison to what they could expect in their own country.

Marital Status

There was a statistically significant difference between the marital status groups, in this study, with respect to job satisfaction levels. 70.4% of the married doctors were satisfied, while 37.5% of single doctors were satisfied, with the majority (62.5%) dissatisfied. Therefore, married doctors were more satisfied than those who were

unmarried. Unmarried people (84% of the unmarried are Omanis), in the Omani culture, are usually young and they are at the beginning of their career ladder. Additionally, they have to collect together a dowry for marriage and to find a house. Also, sexual relationships outside marriage are difficult in Oman as an Islamic country. For all these reasons, those who are married are more settled, sexually and socially.

Work Experience (years in practice)

There was a statistically significant association between work experience and job satisfaction. Doctors' job satisfaction increases as work experience increases. The reasons often presented for this increase in job satisfaction over time is that with more time in the field comes a more realistic view of work, and hard work has been rewarded with promotions and pay raises.

Designation (post)

There was a statistically significant association between designation (post) and doctors' job satisfaction. Doctors in senior posts (consultants, professors and specialists) were more satisfied with their job than doctors in junior posts. This finding is consistent with other satisfaction studies; doctors in higher hierarchical positions are more satisfied than those in lower positions. Stevens et al. (1992) reported that medical specialists are more satisfied than residents and this difference might be attributed to the differences in organisational positions of these two groups. They argued that medical specialists have more influence on the structuring of work activities, while residents are probably more subject to formal structuring of work.

Specialisation

This study revealed that there was no statistically significant difference in job satisfaction between the specialisation categories. Medicine is unique in that its workers

have different experiences and areas of specialisation. The research is ambiguous with regard to specialisation and level of job satisfaction. Some researchers assert that general practitioners are more satisfied (Cooper et al., 1989), while others state that specialists enjoy higher levels of satisfaction (Ben-Sira, 1986). This study supported neither assertion, as analysis of variance revealed no differences based on specialisation.

Ben-Sira (1986) has stated that doctors from differing specialisations draw satisfaction from different parts of medicine. Primary care physicians may draw their satisfaction from providing continuous care to patients. Those in the more specialised areas of medicine may draw satisfaction from mastering a more finite body of knowledge and using the technological advances of medicine to a greater degree.

In their study of the Norwegian doctors, Aasland et al. (1997) found that across specialisation groups there were relatively large variation in job satisfaction, as measured on the Job Satisfaction Scale of Warr et al. (1979). Public health and occupational health doctors were the most satisfied, laboratory doctors, psychiatrists and general practitioners were in an intermediate position. Internalists and surgeons who comprise the bulk of the hospital doctors, 50% of all specialists, were less satisfied. The non-specialist group (doctors in specialism training, as well as general practitioners without any specialism) scored significantly lower than all other groups.

Nationality (Omani and non-Omani)

There was a statistically significant difference between Omani doctors and expatriate doctors with regard to overall job satisfaction, satisfaction with administration, satisfaction with workload, and satisfaction with teamwork. In fact, these issues were also raised by the doctors in the focus group interviews and in the comments on the open-ended questions which also gave some insights into the reasons for this result. Omani doctors' lower satisfaction with administration may arise because

Omani doctors desire to have less formal control by the administration and more influence on policy and decision-making. Some administrative decisions regarding promotion and scholarships were perceived, by Omani doctors, to be based on personal relationships (*"wasta"*) and not on legitimate reasons. This reflects the nature of the Omani society, which functions through a tribal mentality in which personal connections affect all aspects of life. Birks and Sinclair (1987) stated that:

"In Oman society, the family, and not the individual, is the social unit, as elsewhere in the Middle East. Obligations to one's kin must always come first. The family retains, in varying degrees, the traditional characteristic of being extended through patriarchal, matrilineal, endogamous, and occasionally polygamous forms of organisation" (p. 342).

Furthermore, Omani doctors were less satisfied with workload and this could be due to overwork and inadequate time for personal and social life. Omanis have extended families and many responsibilities toward the tribe and the society as a whole. Additionally, most of the Omani doctors are at the beginning of their professional career (56.3% in the junior posts either non-specialists or residents) and probably are more subject to formal structuring of work. Lastly, Omanis were less satisfied with teamwork. This is possibly because Omani doctors are sociable as part of their culture. They need to work in a team or group, as a family, for better patient care and to gain more experience, skills and clinical knowledge from their seniors, who are usually expatriates (65% at senior posts: specialists, consultants and professors).

On the other hand, in the nurses' study, there was no significant difference between Omanis and non-Omanis in relation to job satisfaction. Previous studies have not generally considered nationality in relation to the job satisfaction of nurses. This result is however, consistent with the result from one other study from the USA. Pizer, Collard, James, and Bonaparte (1992) compared the job satisfaction between foreign (N = 322) and American educated nurses (N = 535). While they found demographic, education and work differences, there were no differences in the level of job satisfaction

between the two groups. The majority of nurses in this study were women and women, according to Spector (1997), might expect less from work, and so be satisfied with less, especially in the Omani community where men are culturally considered responsible for the needs of the family.

Type of Health Institution

There was a statistically significant difference between the different types of health institutions (University Hospital, Royal Hospital, health centres and Al-Shatti Hospital) with regard to doctors' satisfaction with professional status, administration, professional development, workload and pay.

Doctors in the health centres were less satisfied with their professional status than doctors in the other health institutions. This finding was supported by the findings from the focus group interviews. Doctors from the health centres felt that their professional status was affected by excessive restrictions on their ability to prescribe medication for their patients and the consequent need to refer patients, even for trivial medical problems. This finding is consistent with findings from previous studies (e.g., Pastor, 1989). Pastor (1989, p. 219) stated that the "degree of status and prestige associated with medical practice is a major source of job dissatisfaction among primary care physicians when matched with specialty-practice physicians".

However, doctors in the health centres were the most satisfied with their administration. Health centres are generally smaller and employ fewer staff than the hospitals. Staff interaction, participation in decision-making, and feedback mechanisms may be easier and quicker in smaller organisations, than in larger organisations that may be characterised by prolonged bureaucratic hierarchies, even for minor decision-making.

Doctors in the University Hospital, Al Shatti Hospital and the health centres were dissatisfied with their opportunities for professional development, while doctors in the Royal Hospital were satisfied with this component. The Royal Hospital has formal teaching programmes for teaching residents, competent teaching staff and many medical activities and workshops. In addition, it is a site for many international examinations and certifications. The University Hospital, paradoxically, depends mainly on passive learning and it suffers a shortage of competent teaching staff. Doctors in the health centres experience greater time pressures. They feel stress in having to see a large number of patients, being pulled in several directions at once by the demands of their work, running late when trying meet a busy schedule, and keeping up with literature. Therefore, they have less time for professional development and growth. These issues were raised in the focus groups and in the comments on the open-ended questions.

Doctors in Al- Shatti Hospital (private sector) were much more satisfied with their workload than the doctors in the University Hospital, Royal Hospital and the health centres. Doctors in the health centres were the most dissatisfied with this component. In Oman most patients prefer to go to government hospitals and health centres because they are of a high standard and health care is free of charge. Therefore, workload in the government institutions is heavier, especially in the health centres.

Doctors in the University Hospital tended to show higher satisfaction with pay than those in the Royal Hospital and the health centres. Also doctors in Al- Shatti Hospital showed higher satisfaction with pay than those in the Royal Hospital. Ministry of Health doctors (Royal Hospital and health centres) were the least satisfied with pay. External pay equity was a source of dissatisfaction for the doctors in all the Ministry of Health institutions; however, it must be pointed out that doctors in the University Hospital work longer hours than their counterparts in the MOH, which may explain some of the pay differences. However, clear differences in salary still exist, regardless

of hours of work. These findings from the survey were supported by the results from the focus groups.

For nurses, as for doctors, there were significant differences between those working at different health institutions. Such differences were found in the areas of professional status, nurse-nurse relationship, nurse-patient relationship, nurse-doctor relationship, workload and pay.

Nurses in the Royal Hospital tended to show a higher level of professional satisfaction, than the nurses of the Al- Shatti Hospital and the health centres. Nurses in the Royal Hospital felt a sense of accomplishment in working in this hospital, because it is the principal referral hospital in the Sultanate. They were also satisfied with the degree to which they could use their skills and knowledge, while nurses in the health centres and in the private hospital felt that their skills were under-utilised. Furthermore, there were more opportunities for personal growth and development at the Royal Hospital. These concerns were expressed in the focus group interviews and in the comments on the open-ended questions.

Nurses in the health centres tended to show a higher level of satisfaction with their nurse-nurse relationship than the nurses in the University and Royal hospitals. This finding was supported by the result of the focus group interviews. Co-worker support in the health centres is more horizontal, that is, distributed among a few nurses, whereas in the hospitals, co-worker support is more vertical, elaborate, and differentiated, involving many nurses, supervisors and allied health professionals.

Nurses in the health centres were less satisfied with their relationships with patients. These nurses are the first line in the health care system. They experience problems in meeting society's expectations of high quality medical care, being pulled in several directions at once by the demands of their patients.

Nurses in the Royal Hospital were less satisfied with their relationships with doctors. This finding is confirmed by the result of the focus group interview at the Royal Hospital. Nurses felt that medical and nursing administrators discriminate in their treatment between doctors and nurses. Doctors are treated better than nurses, and are listened to more than nurses.

Nurses in the Royal Hospital and health centres (Ministry of Health) were strongly dissatisfied with workload and pay. There is a heavier workload in the Ministry of Health institutions because of the easy access to these institutions in comparison to the private hospital (Al- Shatti Hospital) and the University Hospital.

Salaries are much higher in the University Hospital and in the private hospital. These two hospitals have their own independent budgets and their own salary and promotion systems while the Ministry of Health is under the rules of the Civil Service.

Period Worked in Oman (Years of Omani Experience)

The results of this study indicated that there was a statistically significant relationship between expatriate nurses' level of satisfaction and their total years of Omani experience in nursing. Nurses with more years of service had lower levels of job satisfaction. A possible explanation may be related to stress from lack of flexibility within the job, especially when it is accompanied by lack of promotion opportunities and job insecurity due to the risk of contract termination. These concerns were also expressed in the focus group interviews. Thus, as tenure increased, nurses spent more time under stressful working situations. Job stress might be one reason that expatriate nurses with more years of service in this study expressed lower satisfaction. Expatriate nurses with more years of service in Oman might have expected to be in the prime of their working lives, a time in which financial rewards, such as seniority bonuses, would be offered. Job security is an extrinsic factor whose absence within the work

environment may contribute to dissatisfaction (Herzberg, 1966) and its absence may have seriously increased the work-related stress of all expatriate nurses. Chapman (1993) found that nurses who had been employed in nursing one to two years had the highest frequency of stressors. Newly employed nurses may experience a "honeymoon" period.

Type of Practice

There was a significant difference in overall job satisfaction between specialised critical care nurses (nurses in intensive care, cardiac care and special care baby units) and those nurses working in Accident and Emergency (A & E) and in the wards (medical, surgical, paediatric etc.). Nurses working in the specialised critical care units were more satisfied than those nurses working in Accident and Emergency and in the wards. There has been a substantial amount of research into whether the critical care nurse has a job that is more dissatisfying and stressful than those of other nurses working in other nursing areas. Stamps (1997, p: 288) mentioned that Hlavac conducted a study, as part of her master's thesis, to compare the level of work satisfaction of nurses working in a medical- surgical unit and an adult critical care unit. Hlavac could not demonstrate any differences, with the exception of a finding that medical- surgical wards nurses were more dissatisfied with workload than nurses working in a critical care unit. Salvitt et al. (1978) found that nurses in special care units, such as intensive care units and operating rooms, scored higher in job satisfaction. Medical and surgical nurses scored lowest in the area of job satisfaction.

On the other hand, Yamashita (1995) found that there were significant differences between adult and paediatric nurses; paediatric nurses being less satisfied than adult nurses. Also, there was a significant difference in job satisfaction between medical-

surgical nurses and ICU nurses. Medical- surgical nurses were more satisfied than nurses working in the intensive care unit (ICU).

Highest Degree (Level of Education)

There was no statistically significant association between nurses' level of job satisfaction and their level of education. Naturally, researchers feel that there should be a relationship between educational level and satisfaction. However, demonstrating this empirically has not been very successful, despite several different approaches (Stamps, 1997). A meta-analysis by Blegen (1993) on the satisfaction literature in nursing examined how often variables were included in studies assessing levels of nurse satisfaction. Education was frequently included, but only small relationships were noted between education and satisfaction. On the contrary, Stewart-Dedman (1988) found that baccalaureate nurses reported lower job satisfaction than nurses from an associate degree programme or diploma programmes. Similarly, others like Cavanagh (1992a) found that staff nurse satisfaction decreases with increasing level of education. Furthermore, Price and Mueller (1981) suggest that levels of education achieved by a nurse may be associated with dissatisfaction at work and possible turnover. Higher levels of education and training may result in poor job satisfaction if there are constraints within an employee's organisation, which prohibit the use or development of knowledge or ability.

6.2.2. Organisational and Job-Related Factors

Examination of the distribution of responses on job satisfaction reveals that the doctors and nurses, as groups, are moderately satisfied with their work and suggesting that doctors and nurses find their jobs, in general, more satisfying than dissatisfying.

This study points to several factors as determinants of doctors' and nurses' job satisfaction. These factors are related to the structure of the organisation as well as to the functioning of the worker within the organisational setting, as discussed below.

Professional Status

Doctors in this study were highly satisfied with their professional status. It is evident that the work of a doctor still provides a great deal of satisfaction as a career of choice. Many doctors enter into medical school with noble ideas of helping those who are suffering and in pain, and the results of this study from the survey and focus groups indicated that helping patients and being able to treat illness were aspects of medical practice that doctors valued and found meaningful. This is consistent with findings from other studies of job satisfaction among doctors (Mawardi, 1979, Charles et al, 1987, Pastor, 1989, Burke and Richardsen, 1990, and Richardsen and Burke, 1991a). It is possible that the gratification of knowing that someone in need has been helped is one factor that makes the long hours and heavy workloads of the doctor's job more manageable.

The feeling of satisfaction or reward accompanying successful treatment has been the most important aspect of medical practice (Melville, 1980). This feeling is deeply rooted in the sense of personal responsibility among doctors. Dedication and commitment to professional standards and to the welfare of the sick is not only a prerequisite for effective practice but also a drive and a motivation for doctors. According to Herzberg et al. (1959), an important precondition of job satisfaction is that the individual finds the work itself personally interesting and meaningful.

The results of the survey, as well as the results of the open-ended questions and focus groups, revealed that nurses were also satisfied with their professional status. They felt a sense of worthwhile accomplishment as a result of working in nursing. This

is what Maslow (1943) called "self-fulfilment" need, and the extent to which it is met in the workplace influences the level of job satisfaction achieved. Nursing, in general, is regarded as a meaningful occupation. The findings of the study which was conducted in the United Kingdom by Price Waterhouse (1988), in order to assist health authorities to understand the factors affecting retention and recruitment of qualified nursing staff in the National Health Service (NHS) indicated that "the desire to help others" and "doing an interesting job" were the most important reasons why nurses join and remain in the profession. Moreover, the study by Stechmiller et al. (1992) indicated that meaningfulness of work- defined as the need of the critical care nurse to experience the job as one that is generally meaningful, valuable, and worthwhile had the strongest positive effect on nurses' job satisfaction, followed by opportunities for advancement and supervision.

It is encouraging to find that nurses, in this study, were satisfied with the extent to which they could use their skills and knowledge, if we consider the results of other studies in which the majority of nurses felt that their skills were under-utilised (e.g., Williamson, 1993). The following quotation from the focus groups sheds light on that:

"I'm glad that I am able to provide the skills and knowledge that I've learned when I was a student and the experience I gained from way back home, I'm able to give the best I have here."

Relationship with Colleagues and Teamwork

The results of the questionnaire and focus groups indicated that doctors expressed considerable satisfaction with team spirit, contact with their colleagues and the people they work with, indicating that support derived from their immediate environment is readily available. These findings are consistent with findings from other studies. Richardsen and Burke (1991a) in a longitudinal study of the work experience and satisfaction of more than 2,000 Canadian physicians (both general practitioners and

specialists) found "relations with colleagues" to be among the major sources of job satisfaction for respondents. They concluded that "supportive relationships with co-workers and being able to work in a co-operative and friendly atmosphere are essential ingredients for positive attitudes towards the job and effective functioning on the job"(p. 311).

Nurses were also satisfied with their relationships with their colleagues. In fact, satisfaction with the degree to which they feel part of a team and the contact they have with their colleagues indicate a supportive and constructive relationship between them. Many nursing studies highlight good social relationships in work as contributing substantially to nurses' job satisfaction. According to Marshal (1980), working relationships with immediate colleagues and supervisors are more often mentioned in the literature as positive than as negative predictors of job satisfaction. Also, the findings of a study by Gillies et al. (1990) showed a moderate correlation between nurses' job satisfaction and "climate of warmth" - defined as the feeling of general good fellowship that prevails in the work group atmosphere and a strong correlation between job satisfaction and "climate of support" - defined as perceived helpfulness of managers.

Vroom's (1964) factor analysis of job satisfaction studies found that attitude toward co-workers was an important dimension in job satisfaction. Warr and Wall (1975) have also stated that factor analytic studies of job satisfaction repeatedly demonstrate the presence of strong 'other people' factors. Warr and Wall (1975) suggest four main social psychological processes that make social interaction satisfying for all workers. Firstly, individuals have a need for social contact to satisfy their needs for variety, stimulation, affiliation, and approval. These can only be gratified by other people. Secondly, workers use social interaction for social comparisons. People validate their own attitudes, opinions, beliefs and evaluations by comparing them with the attitudes, beliefs and so forth, of those similar to them who are likely to be found in

the same work setting. Thirdly, social interaction in work situations is satisfying because it aids the development of group norms. Therefore, individual group members know what they should or should not do and should or should not think. Lastly, effective operation and goal achievement is in itself valued by most people at work.

All these factors of social interaction are applicable to doctors and nurses. Like other workers, they have needs for affiliation and approval, they need to validate their attitudes and beliefs with others, they need to know what they should or should not do, and they want to work effectively.

Relationship with Patients

The findings from the focus groups and the open-ended questions show that several concepts related to the relationship with patients affect job satisfaction. These concepts reflect the attitude of patients toward doctors. They are appreciation, trust, compliance and respect. The tendency among doctors in this study was to indicate positive rather than negative attitudes toward patients. Therefore, they considered their relationships with their patients as a great source of satisfaction. This finding is consistent with findings from other studies. For doctors of all types of specialisms, a more diverse group of patients leads to higher doctor satisfaction (Kravitz et al., 1990). Also, the feeling of success in treating patients is said to be a major source of doctors' job satisfaction (Melville, 1980). Another source of doctors' job satisfaction is the continuity of care with their patients (Linn et al., 1985a). Linn and her colleagues noted that when doctors have continuity of care with their clients, the result is more satisfied patients and more satisfied doctors. However, they found that 'problem patients' (e.g., those who are difficult and non-compliant) are a major stressor in the lives of doctors, and one that brings them a lack of satisfaction with medical work.

It is imperative for doctors to be able to develop a more personal relationship, not just for the patient's therapeutic good, but for the satisfaction of the doctor as well.

Nurses in this study also reported, in general, moderate satisfaction with their relationship with their patients. The nurse's relationship with the patient is obviously a key element in her working life as a nurse, but establishing a considerably satisfactory relationship with patients can be complicated by several factors. Often there are cultural differences and language barriers between the nurse and the patient, as is the case in Oman where most of the nurses are expatriates. They may therefore not understand patients' frame of reference and so may be unable to assess their suffering (Davitz et al., 1969). Many studies have clearly indicated that delivery of good patient care and provision of physical and emotional supports are central to nurses' job satisfaction. Grout et al. (1981) found that nearly half of the respondents (45.7%) considered direct patient care as the greatest source of job satisfaction. Close patient contact, quality of nursing care, and patient improvement, progress and recovery were the most satisfying aspects of work in intensive care units.

However, nurses expressed stress resulting from the unrealistic expectations of the patients and their relatives as appeared in the focus group discussions. The increase in expectations for improvement in provision of health services among patients and relatives is inevitable given, that the general public in Oman has become more aware and knowledgeable in matters pertaining to health care. It is plausible that such expectations from patients and relatives may pose additional challenges as well as generate considerable pressures among nurses.

Doctor-Nurse Relationship

Doctor- nurse interaction is an essential element of working relationships in nursing and research has identified it as central to nurses' job satisfaction. The results of

the survey in this study showed that nurses were satisfied with the teamwork and co-operation between them and the doctors in their units. The study of Baggs et al. (1990) indicated a significant positive correlation between nurse-doctor collaboration on the transfer decision and nurses' job satisfaction. On the other hand, no significant correlation was found between general collaboration and nurses' satisfaction, indicating that collaboration alone does not increase nurse satisfaction. Even though they felt satisfied with teamwork and co-operation, which enabled them to perform their duties well, they were dissatisfied with the treatment they received from the doctors in their units, as manifested in the results of the open-ended questions and focus groups. This finding is consistent with findings from other studies. Lim et al. (1998) conducted a study in Singapore to examine the relationships among three potential sources of stress, namely, demands from patients/ relatives, demands from doctors, and perceived job image, and several work-related outcomes, namely, job satisfaction, organisational commitment, intention to quit, and job induced tension. They identified that demands from doctors were positively associated with job-induced tension and negatively associated with job satisfaction. The authors concluded:

"While these individuals (nurses) accord a high degree of respect and prestige to doctors, unfortunately nurses often have to struggle for recognition and respect from these people (doctors), as they are often perceived as working under the operational control of doctors" (P. 280)

Professional Development

The doctors in this study, as a group, were moderately satisfied with the opportunities available for continuing professional development. However, the open-ended questions and the focus groups showed that opportunities for professional development for junior doctors, in terms of continuous medical education (CME), postgraduate specialism training and research, were inadequate and potentially affected by the heavy workload and time pressure. This was a major source of dissatisfaction for

those junior doctors. Anwar (1983), in her longitudinal study of residency-trained emergency doctors in U.S.A., found from a mailed questionnaire survey that keeping up with literature, knowing enough and learning new skills and procedures were the major sources of job dissatisfaction of emergency doctors.

Success in modern medical practice is measured by the ability to specialise and sub-specialise (Freidson, 1980). Most of the Omani doctors expressed dissatisfaction with the specialism programmes available locally. The main obstacle is a shortage of highly qualified senior staff to provide training in subspecialisms. This shortage in qualified and motivated staff to provide specialised training, combined with poor national strategy for post-graduate medical education and lack of a clear policy for training doctors, was found to cause frustration among Omani doctors who wanted to improve their professional status.

Nurses, however, felt adequately trained to provide the care required in their units. They were satisfied with the training activities and in-service education available for them in their organisations. Many studies have emphasised how important it is for nurses to receive continuing education in the form of in-service training. McClune's (1986) study, in a cardio-thoracic intensive care unit, showed that the majority of nurses (56%) suggested "more learning opportunities" as the first priority need for job improvement and enhancement of satisfaction. Moreover, Gibson (1994) found that the decision to attend a post-basic course was cited as the main reason for leaving critical care nursing. Indeed, success in problem solving or reaching specific standards of competence is an important determinant of work satisfaction. Conversely, if the opportunity for self-actualisation is missing, employees become dissatisfied because they are unfulfilled at work (Herzberg, 1966).

Administration

Doctors in this study were dissatisfied with various aspects of their hospital administration. These aspects were management style, organisation of services and communication. The management style was authoritarian rather than participatory and organisation of health services at the department level or at the hospital level was inadequate. The hospitals seem so far to have been unable to establish an effective appointment system. Doctors felt that administrators did not understand the nature of doctors' work and contradicted their medical decisions and threatened their sense of clinical freedom.

The doctors desired to have less formal control by the administration and more influence on policy and decision-making. This feeling was stronger among Omani doctors, who want to serve their country in a better way. This finding is consistent with findings from previous studies of doctors (Cooper et al., 1989, Pastor et al., 1989 and Kravitz et al., 1993).

In medicine, formal authority and control is different from other occupations. According to Freidson (1980), in his study of a large prepaid¹ medical practice, in U.S.A. the medical group is a classic case of "bureaucratic-professional" conflict. Bureaucratic control refers to formal rules and regulations, division of labour and hierarchical orders and supervision. Professional control means that the workers themselves control and direct their own work.

¹ A prepaid medical practice is a practice with a closed panel of subscribers and where physicians are all salaried and work full time, i.e. do not have private fee-for-service patients.

Freidson (1980) also explained that bureaucratic management in health care organisations establishes the administrative controls needed to organise and govern basic functioning. Within this, professional authority is then free to control the actual performance of work. Cooper et al. (1989) and Kravitz et al.(1993) have found increased bureaucratic control to be associated with dissatisfaction and the ability to participate in policy normalisation and decision making to be associated with satisfaction.

The results of the open-ended questions and the focus groups showed that nurses, also, were dissatisfied with some aspects of their nursing administration. They were facing problems in discussing their concerns with their superiors, which indicated some difficulty in communication between staff and superiors within the unit or in higher levels of the hospital hierarchy. In many studies this deficiency has been expressed either as poor feedback, considering the need of nurses to know how well they perform on the job (Stechmiller et al., 1992), or as poor administrative support (Godfrey, 1978; Hutt and Waite, 1989). In addition to that, nurses complained of frequent and unexplained changes in policies and regulations regarding nursing. Obviously, nursing management can be exercised either in a negative, dominant way by being autocratic, neglecting to discuss issues with staff, or in a positive way which encourages and implements ideas and initiatives expressed by staff.

Workload

The findings from the survey questionnaire, open-ended questions and focus group interviews indicate that doctors were dissatisfied with their workload. There was a statistically significant relationship between the weekly working hours and doctors' job satisfaction. Job satisfaction decreases as the weekly working hours increases. An

additional finding is that workload is significantly and inversely associated with job-induced stress.

Besides working hours, workload also refers to the amount of work one has to do, including patient care and other activities. The findings showed that the doctors who participating in the study were dissatisfied with patient load, especially doctors in the health centres who used to see 70-80 patients every day in one shift. Doctors felt that a heavy workload might have negative implications for the quality of care, especially when too many patients are seen in a short time. Additionally, some departments, especially in the University Hospital, have a shortage of middle grade doctors (senior house officers, SHOs), which also results in a heavy workload.

Evidence from previous research on doctors suggests that patient load and working hours affect the job satisfaction of doctors. A larger patient load results in higher levels of dissatisfaction (Mechanic, 1975; Hornung et al., 1979; Mawardi, 1979; Clarke et al., 1984; Twaddle, 1986; Cooper et al., 1989; Burke and Richardsen, 1990; Richardsen and Burke, 1991a; Hadley et al., 1992, Rout et al., 1994).

Heavy workload also affects quality of care because of shorter consultations, a lower quality of communication between doctors and patient and detection of fewer patient problems (Groenewegen and Hutten, 1991). Doctors with a heavy caseload considered more complaints of their patients as trivial, reported more unreasonable consultations and felt less responsibility for the psychosocial problems of their patients (Hornung et al., 1979).

Nurses, too, expressed dissatisfaction with workload. Indeed, their level of satisfaction with workload was the lowest for any work component. Nurses expressed strong feelings of dissatisfaction and frustration because of the amount of clerical and paperwork required of them. The other non-nursing tasks such as stamping files,

reviewing bills and pulling trolleys were also dissatisfying, reinforcing the view that nurses prefer tasks requiring patient contact. The nurses stated that paperwork and non-nursing tasks increase the workload and negatively affect the quality of patient care. The following studies showed that workload and other task requirements are important causes for nurses' turnover and nurses' dissatisfaction.

The results of Hutt and Waite's study (1989) indicated that the perception that a high workload prevented nurses from giving the best care was the second most important reason for leaving or considering leaving the NHS, after high levels of stress.

Weisman et al. (1980) completed a two-wave panel study of hospital staff nurses at two large university-affiliated hospitals in one metropolitan area in the U.S.A. They found that job related attributes that contributed to turnover included: overtime work, rotating shifts, high work load, unresponsive head nurse leadership, inappropriate task delegation by physicians, inadequate communication with head nurse, inadequate time for professional growth and development, mode of nursing and position level.

Not surprisingly, nurses were dissatisfied with time spent on administration. Similar results have been obtained in other studies considering time spent on administration and non-nursing duties in general (Godfrey, 1978). Administrative tasks have been a part of nursing work since the beginning of modern hospital nursing, consuming a considerable amount of nursing time.

Pay

The professions, especially medicine, are frequently thought to be occupations in which satisfaction is high because of the high level of remuneration for tasks. In the present study, doctors' level of satisfaction with pay was the lowest for any work component. In fact, there was a generalised dissatisfaction with doctors' salary, a

finding consistent across the questionnaire, open-ended questions and focus groups. Lewis et al. (1991) found, in a questionnaire survey study of job satisfaction in internal medicine in the U.S.A., that growing dissatisfaction with internal medicine is related primarily to concerns over loss of autonomy, increase in financial burdens and loss of potential income. Similarly Richardsen and Burke (1991a), in their study of Canadian physicians found that job satisfaction was related to the financial security that the job provided.

However, Cooper et al. (1989), based on multivariate analysis of a large database of GPs in England, compiled from the results of a confidential questionnaire survey, argued that there are other factors that are more important to doctors' job satisfaction than the amount they earn. Intrinsic factors, such as freedom, responsibility, and variety, have the most impact on whether doctors are satisfied with their work. The lowest impact comes from extrinsic factors such as pay.

Issues related to adequacy of pay and equity within the organisation and across the various governmental hospitals were found to produce dissatisfaction. Inequity results when salary scales are determined for reasons other than qualification and performance, such as type of organisation, and nationality. Adams (1963) suggested that satisfaction with pay is dependent, not on its absolute amount, but on the relationship between that amount and some standard of comparison- a previous wage or another's wages.

In accordance with the human capital perspective of earning determination, doctors feel that, compared to other government employees, they have invested a long time and effort in education and training, but that they do not obtain an adequate return on the investment. Pay was also found to have a symbolic value to doctors. Higher pay is an indication of success and social status.

Nurses' level of satisfaction with pay was also very low. They felt that their salary scales do not reflect the hard work they do, or the extended years of training and education they have to go through. There were more feelings of dissatisfaction and frustration among nurses working in the Ministry of Health (Royal Hospital and health centres). These findings are consistent with findings from other studies. Cavanagh (1992a) noted that Froebe et al. (1983) and Munro (1982) found that staff nurses considered salary to be important in seeking employment. Also Thompson (1981) found that pay was ranked by nurses as the most important work factor but at the same time the one giving the least satisfaction to nurse anaesthetists. In the United Kingdom, Scott and Gray (1994) reported that nurses' satisfaction with pay had fallen from 25% in 1992 to 16% in 1994. They suggested that this was directly related to the pay policy over the last years and the attempts to implement a local pay scheme.

As for doctors, there was also a wide feeling of inequity in pay, especially among nurses working in the Royal Hospital and in the health centres. They feel that they are paid less than their colleagues in the University hospital with the same qualifications. Moreover, there was a feeling that pay is inequitable even within the same organisation (Royal Hospital) where nurses of some nationalities (Western) get higher salaries. As mentioned these findings are consistent with what Adams' (1963) equity theory assumed about job satisfaction. According to this, employees continuously monitor the degree of equity or inequity that exists in their work relationships, and attempt to restore equity if they feel an imbalance exists. If this balance cannot be achieved, as in the case of nursing salary, employees' discontent is exacerbated.

Promotion

Findings from the open-ended questions and focus groups revealed that both doctors and nurses were strongly dissatisfied with opportunities for promotion. This

finding is consistent with findings from other studies, e.g., Pastor's (1989) study on doctors and Gibson's (1994) study on nurses. Gibson's study indicated that "lack of career development" was cited by critical care nurses as the most influential factor to their decision to leave their jobs. Lack of promotion was a major concern for doctors and nurses working in the Royal Hospital and the health centres. They felt concern not only over the amount of financial rewards, but also regarding the social implications associated with promotion. It was established that feelings of dissatisfaction are related to the lack of a sense of social status, and perhaps also, individual success. In many countries, medicine is associated with social status and financial success; however, most doctors in the Royal Hospital and the health centres (Ministry of Health) feel that medicine has failed them promotionally, and some of them feel that this affects their social status.

Autonomy

Autonomy is one of the main job characteristics that affect the job satisfaction of doctors (Breslau et al., 1978; Mick et al., 1983; Schulz and Schulz, 1988; Cooper et al., 1989 and Schulz et al., 1992). Also, increased autonomy for the staff nurse is a well-recognised goal in the nursing profession (Weisman, 1982; Dear et al., 1982 and Blegen, 1993). According to Kravitz et al. (1993), there are two types of autonomy: technical autonomy and socio-economic autonomy. Technical autonomy refers to the ability to practise according to one's judgement. Socio-economic autonomy refers to the ability to influence policy in the organisation. The results of the focus groups showed that doctors and nurses were satisfied with technical autonomy and dissatisfied with socio-economic autonomy. This shows that these doctors and nurses judge themselves as autonomous because of the freedom they have to do their work, to make decisions that affect their patients and to maintain control over their work. In this respect, doctors and nurses in Oman are unlike doctors in the U.S., who seem to feel

that bureaucracy in the organisation of medical services presents the main threat to technical autonomy. However, doctors and nurses in this study felt that they have no influence on policy and decision-making that concerns management of the organisation in general, resources and health personnel. According to Stevens et al. (1992) organisation theorists have frequently argued that bureaucratic organisation structures create dissatisfying and alienating climates for professionals.

Working Conditions

Working conditions are considered by researchers as an extrinsic reward of the job. They are not directly a part of the actual work, but nonetheless constitute an important aspect of it. In the present study, the term, working conditions, has been used to denote two aspects of the work environment: physical working conditions (e.g., cleanliness, space, location of the hospital) and facilities medical and non-medical. The results of the focus groups and the open-ended questions revealed that doctors and nurses in the University Hospital, Al Shatti Hospital and Royal Hospital were satisfied with their working conditions, while doctors in the health centres were dissatisfied. The buildings of the health centres are small, with small waiting areas for patients and there are no rooms for meetings, rest and praying. Respondents stated that the space available affects the extent to which they are able to use their skills, and affects the morale of doctors and patients. The equipment available (e.g., ECG machines) is very old and some machines are not working. Also, there is only one ambulance for three health centres. Whyte (1961) states that workers are likely to endure difficult physical conditions when those conditions are seen as clearly necessary in the job situation. In a similar vein, Becker (1985) argued that adverse working conditions negatively affect the amount of satisfaction that workers derive from their job.

Job-Induced Stress

Job-induced stress of doctors and nurses was measured with a newly created scale, based mainly on the work of Cooper et al. (1989) and on factors in the literature that were judged as stressful for doctors and nurses. The analysis revealed that these concepts tend to be unidimensional. On the bivariate level and in the multiple regression analysis, job-induced stress did, indeed, have a relationship with job satisfaction. A moderate relationship was shown, and it was statistically significant. As theory predicted, a negative relationship surfaced; the higher level of medical stress, the lower the level of job satisfaction among doctors and nurses.

The number of hours worked, continuous on-call responsibilities, dealing with problem patients, contact with chronically sick and dying patients and their relatives and interference of job with family life, were the main sources of stress among the doctors as indicated by the results of the combined methods (survey and focus groups) employed in this study. Doctors also experience the time pressures resulting from demand of the job and expectations by patients and by medical institutions, as stressful. These findings are consistent with findings from other studies (Mechanic, 1975; Mawardi, 1979; Krakowski, 1982; McCue, 1982; Clarke et al., 1984; Linn et al., 1985b; Charles et al., 1987 and Richardsen and Burke, 1991a).

The relationship between occupational stress and job satisfaction has received some attention in the research literature on doctors. Studies that have included measures of both job stress and satisfaction have generally found them to be inversely related (e.g., Cooper et al., 1989 and Mawardi, 1979). Mawardi (1979) found that the doctors with the lowest scores on career satisfaction reported more stress and dissatisfaction related to time pressure and dealing with difficult patients. In a national survey of English general practitioners, Cooper et al.(1989) found that four job stressors were predictive of high levels of dissatisfaction and lack of mental well-being. These

were demands of the job and patients' expectations, interference with family life, constant interruptions at work and home, and practice administration.

Also, the results of this study, as mentioned above, revealed a statistically significant inverse correlation between job stress and job satisfaction with regard to nurses. All of the job satisfaction components except for pay were negatively influenced by stress, with an especially strong relationship between job stress and overall job satisfaction. This finding is consistent with findings from other studies. The stress-job satisfaction relationship has been identified as a negative one in several studies, controlling for stress as the independent variable (e.g., Stechmiller, 1992). In Blegen's (1993) meta-analysis, job satisfaction was found to be strongly and inversely related to stress ($r = -0.609$).

Nurses felt stress resulting mainly from increased demand by patients and relatives, daily contact with dying and chronically ill patients, night shifts, paperwork, dealing with problem patients and conflict with doctors. A vast amount of research done so far has investigated the factors determining stress in nursing, many of which are similar to the findings from the survey and focus groups in this study. Chapman (1993) reported some of them as major sources of stressors in the acute care hospitals: death and dying, conflict with physicians, inadequate preparation, lack of support, conflict with other nurses, workload, and uncertainty concerning treatment. Chapman concluded that efforts must be directed at eliminating these stressors or assisting nurses to cope with job stressors. Wheeler et al. (1994) also reported some job stressors, including: work overload, time pressure, organisational and management issues, poor work relationships, and poor working conditions and facilities.

The stressors of medical care impede a doctor's or a nurse's ability to provide proper care and function freely. Interventions need to enable doctors and nurses to

better handle those outside forces over which they have no control, as this will contribute to their job satisfaction. One important intervention may deal with preparing doctors and nurses with coping and adjustment skills to deal with various stressors. As stressors are realities of medical practice, and not likely to be eliminated preparing doctors and nurses better to cope mentally with these impediments is imperative. Doctors and nurses need to learn how to cope with stress; this should be included in their formal training. It might be advisable to establish a national counselling body to provide professional help for doctors and nurses who suffer from work-related mental / emotional pressure.

Summary

Both content and process theories of job satisfaction have provided useful insights which have aided the interpretation of the research findings. Consistent with content theories, doctors' and nurses' job satisfaction has been shown to be a function of a wide range of intrinsic and extrinsic factors. Consistent with process theories, it has been shown that it is not so much the absolute status of a given factor that renders it satisfying or dissatisfying; it is how that status is perceived in relation to individuals' expectations, and whether it is perceived as equitable.

The determinants of job satisfaction were the same for both sexes and, apart from some personal and background characteristics, the same for both doctors and nurses. Generally they derived satisfaction from their professional status and from interpersonal relations with colleagues and patients, but were dissatisfied with administration, opportunities to influence decision-making, workload, pay and promotion. Levels of satisfaction or dissatisfaction, however, varied with the type of health institution, i.e. public versus private, primary versus secondary or tertiary and Ministry of Health versus non-MOH. Job induced stress was significantly inversely related to job

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CHAPTER SEVEN

CONCLUSION AND IMPLICATIONS

7.1. Conclusion

This study aimed to examine the factors affecting the job satisfaction of doctors and nurses in Muscat Governorate, Sultanate of Oman. It focused on nationality (Omani and non-Omani) differences in these factors, as well as on organisation-based differences. The main instruments were survey questionnaires combined with focus group interviews allowing triangulation in the sense of combining qualitative and quantitative methods. The use of different data collection techniques (triangulation) enabled more accurate testing of the assumptions and hypotheses made by this study and the description of several dimensions of job satisfaction.

The study was conducted in Muscat, the capital city of Oman. In Muscat there are many health care providers besides the Ministry of Health, including Sultan Qaboos University Hospital (Ministry of Higher Education), Al Shatti Hospital (private sector), and Military and Police hospitals. Sultan Qaboos University Hospital, Al Shatti Hospital and, from the Ministry of Health, Royal Hospital and three health centres were selected for this study. The authority responsible for the Military and Police hospitals refused to participate.

The sample composed of all doctors working in these organisations, except those who were on long leave and the Omani doctors who were on scholarships abroad. Completed valid questionnaires were received from 264 doctors, a response rate of 71.2%. A stratified random sampling method was used to select the nurses' sample. Completed questionnaires were received from 371 nurses, a response rate of 79.4%.

The findings from the survey, content analysis of the open-ended questions and focus group interviews show that several factors affect the job satisfaction of doctors and nurses. These factors were personal and demographic as well as organisational and job-related factors.

The study suggest that older doctors were more satisfied than younger doctors, married doctors were more satisfied than those unmarried, and those in higher posts were more satisfied than those in junior posts. Additionally, the job satisfaction of doctors was found to be increased with increasing work experience.

With regard to expatriate nurses, as the period of staying in Oman becomes longer, their job satisfaction decreases. There were significant differences in overall job satisfaction between specialised critical care nurses (nurses in intensive care, cardiac care and special care baby units) and those nurses working in Accident and Emergency (A & E) and on the wards (medical, surgical, paediatric etc.). Nurses working in the specialised critical care units were more satisfied than those nurses working in Accident and Emergency and on the wards.

Both doctors and nurses were happy with their professional status, not only in the sense of respect accorded them by others, but in terms of the rewarding feelings that resulted from using their skills to help others.

The doctors and nurses in this study also indicated that relationships that they formed in the workplace, with their colleagues, were important sources of satisfaction. Supportive relationships with colleagues and being able to work in a co-operative and friendly atmosphere are essential aspects for positive attitudes towards the job. Although the nurses were satisfied with the teamwork and co-operation with the doctors on their units, they expressed feelings of stress and dissatisfaction with the treatment

that they received from those doctors. The study also showed that the relationships with colleagues were not affected by nationality.

Relationship with patients was a source of satisfaction for both doctors and nurses. They felt appreciated and trusted by their patients. However, sometimes demands from patients and patients' relatives resulted in feelings of stress and dissatisfaction.

Teaching medical or nursing students was regarded as a source of great satisfaction. Some doctors and nurses liked serving as a role model and mentor and watching students improve their skills. Others gained satisfaction from sharing their clinical experience with students and residents.

Workload refers to the amount of work and the time spent on work related activities. Findings indicate that this factor is a source of potential dissatisfaction for both doctors and nurses. Doctors felt that a large patient load may jeopardise the quality of care, as less time is spent with each patient. This creates restriction on doctors' ability to practise according to their professional judgement and standards. Findings regarding working hours also indicate dissatisfaction. Doctors, especially those doing on call duties in the hospitals, desired to have more flexibility in their duty schedules. Nurses expressed strong feelings of dissatisfaction and frustration because of clerical duties and paperwork. Additionally, they were dissatisfied with non-nursing tasks such as stamping files, reinforcing the view that nurses prefer tasks requiring patient contact. The nurses felt that paperwork and non-nursing tasks also negatively affect the quality of patient care.

Pay was found to be one of the main sources of dissatisfaction, for doctors and nurses. One of the reasons for dissatisfaction with pay is the absence of clear link between performance, qualification, effort, and financial rewards. Another cause of

dissatisfaction with pay has to do with pay equity, both inside the organisation and across organisations. Inequity results when salary scales are determined for reasons other than qualification and performance, such as type of organisation, and nationality.

Doctors felt that they, compared to other government employees, they invest a long time and effort in education and training to become doctors, but that they did not obtain an adequate return on the investment. Pay was also found to have a symbolic value to doctors. Higher pay is an indication of success and social status.

Promotion describes the possibilities of advancement to the next level or grade within the same organisation. Findings showed that both doctors and nurses were dissatisfied with opportunities for promotion.

Also, doctors were dissatisfied with their professional development in terms of continuous medical education (CME), postgraduate speciality training and research. On the other hand, nurses were satisfied with their opportunities for professional development. They were happy with the training and in-service education they received.

Both doctors and nurses were unhappy about various aspects of administration. These aspects included management style, organisation of services and communication. Doctors, especially Omanis, desired to have more influence on policy and decision-making because, as they suggested, administrators do not understand the nature of medical work and sometimes they contradict medical decisions and threaten the sense of autonomy of doctors and nurses. Nurses expressed dissatisfaction and frustration with the poor communication regarding regulations and policies concerning their units and nursing in general. There were frequent unexplained changes in these regulations and policies, which created role ambiguity to them.

Expatriate doctors and nurses expressed feelings of dissatisfaction toward job security. The fear of impending job loss was greater among nurses.

The findings of this study indicated that job-induced stress was strongly and negatively associated with job satisfaction. Doctors and nurses who experienced greater levels of job-induced stress were less satisfied with their practices.

The number of hours worked, continuous on-call responsibilities, dealing with problem patients, contact with chronically sick and dying patients and their relatives and interference of the job with family life, were the main sources of stress among the doctors in this study. Doctors also experienced time pressures resulting from the demands of the job and expectations by patients and by medical institutions, as stressful.

Nurses felt stress resulting mainly from increased demand by patients and relatives, daily contact with dying and chronically ill patients, night shifts, paperwork, dealing with problem patients and conflict with doctors. Expatriate nurses also experienced communication problems with patients and relatives resulting from the language barrier.

Nationality-based differences

As predicted, the results of this study showed that there was a statistically significant difference between Omani doctors and expatriate doctors with regard to overall job satisfaction, satisfaction with administration, satisfaction with workload and satisfaction with teamwork. Omani doctors had lower mean scores, indicating lesser satisfaction than expatriate doctors. This result provides an evidence for the cultural and social impact on satisfaction. On the other hand, there were no statistically significant differences between Omani nurses and expatriate nurses with regard to job satisfaction.

Organisation-based differences

The results reveal statistically significant differences between the different types of health institutions (University Hospital, Royal Hospital, health centres and Al-Shatti Hospital) with regard to doctors' and nurses' satisfaction with various aspects of their work. However, this study do not show that any particular hospital is better than the others; in fact each hospital has its good and bad aspects, according to the doctors and nurses working in it.

Both doctors and nurses were dissatisfied with their pay in all the hospitals and health centres selected for this study. However, doctors and nurses in the Ministry of Health institutions (Royal Hospital and health centres) were more distressed about the adequacy and equity of their salaries.

The workload was a source of satisfaction for doctors and nurses in Al- Shatti Hospital, but a source of potential dissatisfaction for those working in the University Hospital, Royal Hospital and health centres.

The doctors' satisfaction with professional status was highest in Al- Shatti Hospital and lowest in the health centres while nurses' satisfaction with this component was highest in the Royal Hospital and lowest in Al- Shatti Hospital and the health centres.

The administration was a source of satisfaction for doctors and nurses working in the health centres, but a source of dissatisfaction for those working in the other health institutions.

Nurses in the Royal Hospital were less satisfied with their relationships with doctors while nurses in the health centres were less satisfied with their relationships with patients.

Doctors and nurses in the University Hospital, Royal Hospital and Al Shatti Hospital were satisfied with the working conditions in terms of medical and non-medical facilities, cleanliness, and location of the buildings. However, doctors and nurses in the health centres apparently dissatisfied with their working conditions. They complained that the buildings are small, they have old medical facilities, and they have no place for rest.

7.2. Limitations of the Study

This research has several limitations that restrict its utility. A major limitation of the study design is the population from which the participants (doctors) were selected. All doctors, in the selected hospitals in the Muscat area, were invited to participate, but the decision to return the questionnaire was the doctor's. Therefore, the results reflected the responses of the doctors choosing to participate and may not be representative of all doctors in the Muscat area. Additionally, two other major hospitals in Muscat were excluded from the study because the authorities in these hospitals refused to participate.

A second limitation is that the sample for this study was drawn from the principal hospitals in the country (University Hospital, Royal Hospital and Al-Shatti Hospital). These hospitals are located in the capital of the country, Muscat. Therefore, it is possible that these hospitals attract a unique sort of doctors and nurses, thus limiting the generalisability of this study. Though one might assume these doctors and nurses are not markedly different from any doctors and nurses, it is still a consideration to bear in mind when speaking of the generalisability of this research.

A third limitation is that no focus group interview was conducted in Al-Shatti Hospital to strengthen the findings from the questionnaires. However there were rich

comments from the doctors and nurses on the open-ended questions which, to some extent, compensated for this particular limitation.

Lastly, the constraints on the scope of the study precluded the examination of some characteristics which may be important to the complete understanding of job satisfaction. For example, motivation of the doctors and nurses, a key characteristic in many studies on job satisfaction, could not be ascertained due to the restrictions of the study. Other characteristics that may have added insight and explanatory power to the study include the commitment to the organisation and the difference in this characteristic between Omanis and expatriates.

7.3. Theoretical and Practical Implications

What does this research tell us about the theoretical conceptualisations of job satisfaction and its measurement? What implications does this research have for future job satisfaction research? Finally, what are the practical implications of this research in terms of policy for improving the job satisfaction of doctors and nurses in Oman?

Theoretical Implications

In general theoretical terms, job satisfaction was conceptualised as a theoretical construct which is multidimensional, not unidimensional. Job satisfaction as a global term is meaningless because it conceals opposing attitudes to specific job dimensions by cancelling them out. This belief was reaffirmed by examining the responses of the doctors and nurses to various job satisfaction dimensions. For example, a nurse could be satisfied with her relationship with co-workers but dissatisfied with her pay. Furthermore, doctors and nurses also showed variation in their attitudes to a specific job determinant, e.g., in terms of satisfaction with the relationship with patients, a doctor or a nurse might be satisfied with the trust, appreciation and respect from their patients but

dissatisfied with the unrealistic demands from patients and their relatives. Thus, not only must job satisfaction be seen as a multidimensional concept, but it must also be operationalised in terms of the specific occupation. Although professions and occupations may share some characteristics, there are others, which are peculiar to each. This point has serious implications for the operationalisation of the term, job satisfaction.

Measurement Implications

Closely related to the theoretical implications of the present study are the methodological and measurement implications. Measurement instruments have to be constructed according to the specific characteristics of the job under investigation and take account of possible differences in professional work settings and national cultures. The measurement instruments used in this study to measure the job satisfaction of doctors and nurses were extensively modified from the original scales according to the needs of the study. Factor analysis was used to verify the validity of these scales. The identified factors of job satisfaction were more representative of the Omani work environment of health professionals. The reliability of the scales and the subscales was acceptable. These scales can be used in future research of job satisfaction of doctors and nurses in Oman. Not only that, these scales can be used in the Gulf Co-operative Countries (G.C.C.) which all have similar work settings in their health institutions to the Omani ones. It is important, however, that research on the integrity and structure of the scales themselves be continued. More investigators need to carry out both validity and reliability analyses in order to continue to improve the scales, to ensure that their relevance is maintained, and to establish national norms.

More qualitative work (such as focus group interviews) on the reactions of doctors and nurses to their work may help to build a greater understanding of the role of various

factors in the complex relationship between the doctors and nurses and job satisfaction. Combination of different methods (triangulation) in job satisfaction research provides in-depth understanding of each of the determinants of job satisfaction and its indications for doctors and nurses.

Indeed, further research needs to aim at the implementation of measures specific to the work situations of doctors and nurses, as those occupational measures appear to be important to understanding doctors' and nurses' satisfaction. Understanding the way that doctors and nurses assign value and meaning to the experience of the work situation will help medical and nursing educators, researchers and administrators to design interventions to increase the satisfaction of doctors and nurses.

Implications for Future Research

The sociological study of doctors and nurses and their job satisfaction is an area of inquiry with room for development. This study represents groups of personal factors not previously explored, i.e. nationality (nationality differences), religion, designation, availability of family members for expatriate, years of Oman experience for expatriate doctors and nurses and type of health institution (organisational differences). In this sense the research was exploratory; these factors need to be explored further in future research.

This study focused only on nurses and doctors in the Muscat area of Oman. Thus, to extend the generalisability and lend further corroboration to the findings of the present study, future research could perhaps focus on samples of nurses and doctors in other areas of Oman, either separately or in comparative studies such as this study. Currently, research on job satisfaction and doctors and nurses in the Omani context is generally lacking. Consequently, it is hoped that this study will serve as an impetus to stimulate further interest and research in the topic of job satisfaction of doctors and

nurses in the neighbouring Gulf countries so that comparisons across these countries can be fruitfully drawn.

More research on individuals working in the helping services is required. Job satisfaction studies need to be done on physiotherapists, laboratory technicians, auxiliary nurses and others in the helping services.

Recommendations for Policy

The findings of this study suggest several ways in which managers of health care policy in the Sultanate of Oman can implement policy changes that will improve the job satisfaction of doctors and nurses in Oman. Making the changes implied in the following suggestions will demand the effort and vision of administrators at all levels. Recommendations with regard to doctors and nurses are presented next in two separate sections.

Recommendations to improve doctors' job satisfaction

1. This study shows that there is a need to re-evaluate the salary scales of doctors so that they reflect performance, effort, experience and qualifications. The Ministry of Health should make further attempts to improve the salaries of lower ranks doctors. The old adage, "you get what you pay for", tends to be true when it comes to staff members. They want to be paid fairly. Otherwise, hardworking doctors who can find jobs elsewhere may leave, while mediocre doctors would stay and compromise the organisation's success.
2. The authorities in these health care organisations should reward the loyalty and performance of doctors with advancement. If they do not have an open position to which to promote a valuable doctor, they should consider giving

him or her a new title that reflects the level of work he or she has achieved. When feasible, they should support doctors by allowing them to pursue further education, which will make them more valuable to the organisation and more fulfilled professionally.

3. Leaders of health care organisations in Oman should recognise the assets they have in Omani doctors and utilise their expertise in setting the direction of health care services. Omani doctors are highly qualified professionals, who have achieved international standards of competence, and who are highly committed and motivated to the service of their country.
4. Efforts should be directed at improving locally available postgraduate medical educational programmes. The Oman Medical Speciality Board should improve the structures of these programmes and enhance their quality through recruitment of highly qualified teaching staff and recognising those who are good educators. Those house officers in training should have different grades with different salaries according to their year of training, and those who perform well should be recognised and encouraged. The Oman Medical Speciality Board should have a clear system for the evaluation of residents. Further organisation of these programmes and evaluation of their policies regarding approval of hospitals that deliver training programmes is essential.
5. Hospitals and health centres should be required to conduct a variety of professional activities, including certification, continuing medical education (CME) and research. They should make an effort to include both Omani and expatriate doctors.

6. Management training programmes should be established to improve the managerial skills of hospital administrators at all levels, in order to achieve the highest levels of efficiency and facilitate doctors' sense of autonomy.
7. Policies should be established to increase collaboration and co-ordination between hospitals of different affiliations, in order to improve the quality of care and facilitate appropriate utilisation of services.
8. Hospitals should have flexible on-call schedules for doctors. Doctors who have been on call the night before should be off duty next day and those who work during holidays should be compensated, either monetarily or by being given days off.
9. The Directorate of Health Affairs in Muscat should give more freedom for family physicians in the health centres to practise according to their professional judgement and should abolish the restriction regarding prescribing for common and chronic diseases.

Recommendations to improve nurses' job satisfaction

1. Administrative tasks have been a part of nursing work since the beginning of modern hospital nursing, consuming a considerable amount of nursing time. A logical approach in resolving this problem would be for the hospital to employ the necessary domestic and clerical staff in the unit. Auxiliary nurses should be introduced in order to perform routine tasks such as washing of patients, cleaning and changing the bed sheets, checking temperatures and weighing patients. Auxiliary nurses could also carry out the non-nursing tasks like stamping files and pushing wheelchairs. This would probably have a favourable effect on the operating costs of the hospital, because auxiliary

nurses could be hired more cheaply than registered nurses. Furthermore, by making nursing time available for patient care, more patients could be treated in the same period. This would increase the productivity of the hospital's nurses.

2. Although nurses seem to be satisfied with the ongoing in-service education, this scheme should be improved to cover management skills, clinical teaching and research into current trends in nursing. Opportunities should be available to nurses to attend professional forums, workshops and training courses. As for formal degree education, grants and rewards should be provided for Omani nurses to study for university degrees. If the development of excellence in nursing is a priority issue, full support should be given to those who wish to advance nursing through academic study.
3. The study showed that nurses were extremely dissatisfied with their promotion opportunities. This is possibly due to the internal structure of the nursing administration, which is based on bureaucratic principles and a hierarchy of authority, which acts as a barrier to nurses' professional advancement. One way to create opportunities for advancement would be the implementation of a career ladder, which recognises both excellence in practice, and length of service. On the other hand, there is the problem that the further up the career ladder one goes, the greater the involvement in administration, leaving limited time for any hands-on patient care.
4. Also, as for doctors, there is a need to re-evaluate the salary scales of nurses so that they reflect excellence in practice, length of service and qualifications.

5. The environment in which people work has a tremendous effect on their level of pride in themselves and in the work they are doing. The working conditions in the health centres should be improved. Equipment and facilities should be kept up to date. More rooms should be built, with one for rest. A room for rest and coffee can make a world of difference to an individual's sense of well-being.

6. Hospital and nursing managers should provide the nurses with ongoing feedback. They should make sure that policies are fair and applied equally to all. When redesigning the process of care, health care organisations need concurrently to improve management style and raise the personal sense of security within the organisation. In the search for an effective management style, special attention should be directed to cultural considerations in staff composition (i.e., different nationalities have different needs and perceptions).

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APPENDIX 16 (a) Tukey HSD Test For Doctors In Different Health Institutions

Dependent Variable	(I) HOSPITAL NAME	(J) HOSPITAL NAME	Mean Difference (I-J)	Sig.
PAY	ROYAL	SQUH	-.6038*	.000
		AL SHATTI	-.5000*	.011
		HEALTH CARE CENTRES	-.2039	.229
	SQUH	ROYAL	.6038*	.000
		AL SHATTI	.1038	.603
		HEALTH CARE CENTRES	.3999*	.023
	AL SHATTI	ROYAL	.5000*	.011
		SQUH	-.1038	.603
		HEALTH CARE CENTRES	.2961	.215
	HEALTH CARE CENTRES	ROYAL	.2039	.229
		SQUH	-.3999*	.023
		AL SHATTI	-.2961	.215
ADMINISTRATION	ROYAL	SQUH	-1.6238E-02	.876
		AL SHATTI	-.1351	.447
		HEALTH CARE CENTRES	-.5967*	.000
	SQUH	ROYAL	1.624E-02	.876
		AL SHATTI	-.1189	.517
		HEALTH CARE CENTRES	-.5805*	.001
	AL SHATTI	ROYAL	.1351	.447
		SQUH	.1189	.517
		HEALTH CARE CENTRES	-.4616*	.040
	HEALTH CARE CENTRES	ROYAL	.5967*	.000
		SQUH	.5805*	.001
		AL SHATTI	.4616*	.040
PROFESSIONAL STATUS	ROYAL	SQUH	1.767E-02	.805
		AL SHATTI	-.2088	.084
		HEALTH CARE CENTRES	.2689*	.019
	SQUH	ROYAL	-1.7669E-02	.805
		AL SHATTI	-.2265	.070
		HEALTH CARE CENTRES	.2512*	.034
	AL SHATTI	ROYAL	.2088	.084
		SQUH	.2265	.070
		HEALTH CARE CENTRES	.4777*	.002
	HEALTH CARE CENTRES	ROYAL	-.2689*	.019
		SQUH	-.2512*	.034
		AL SHATTI	-.4777*	.002
PROFESSIONAL DEVELOPMENT	ROYAL	SQUH	.3041*	.008
		AL SHATTI	.4688*	.017
		HEALTH CARE CENTRES	.2891	.110
	SQUH	ROYAL	-.3041*	.008
		AL SHATTI	.1647	.412
		HEALTH CARE CENTRES	-1.5000E-02	.936

APPENDIX 16 (a) Tukey HSD Test For Doctors In Different Health Institutions

Dependent Variable	(I) HOSPITAL NAME	(J) HOSPITAL NAME	Mean Difference (I-J)	Sig.
PROFESSIONAL DEVELOPMENT	AL SHATTI	ROYAL	-.4688*	.017
		SQUH	-.1647	.412
		HEALTH CARE CENTRES	-.1797	.462
	HEALTH CARE CENTRES	ROYAL	-.2891	.110
		SQUH	1.500E-02	.936
		AL SHATTI	.1797	.462
TEAMWORK	ROYAL	SQUH	8.039E-02	.322
		AL SHATTI	-.2222	.113
		HEALTH CARE CENTRES	-1.8033E-02	.889
	SQUH	ROYAL	-8.0386E-02	.322
		AL SHATTI	-.3026*	.036
		HEALTH CARE CENTRES	-9.8420E-02	.462
	AL SHATTI	ROYAL	.2222	.113
		SQUH	.3026*	.036
		HEALTH CARE CENTRES	.2042	.246
	HEALTH CARE CENTRES	ROYAL	1.803E-02	.889
		SQUH	9.842E-02	.462
		AL SHATTI	-.2042	.246
WORKLOAD	ROYAL	SQUH	.1720	.105
		AL SHATTI	-.4730*	.011
		HEALTH CARE CENTRES	.3509*	.036
	SQUH	ROYAL	-.1720	.105
		AL SHATTI	-.6451*	.001
		HEALTH CARE CENTRES	.1789	.304
	AL SHATTI	ROYAL	.4730*	.011
		SQUH	.6451*	.001
		HEALTH CARE CENTRES	.8239*	.000
	HEALTH CARE CENTRES	ROYAL	-.3509*	.036
		SQUH	-.1789	.304
		AL SHATTI	-.8239*	.000
OVERALL SATISFACTION	ROYAL	SQUH	2.377E-03	.970
		AL SHATTI	-.2991*	.010
		HEALTH CARE CENTRES	4.277E-02	.670
	SQUH	ROYAL	-2.3771E-03	.970
		AL SHATTI	-.3015*	.012
		HEALTH CARE CENTRES	4.039E-02	.698
	AL SHATTI	ROYAL	.2991*	.010
		SQUH	.3015*	.012
		HEALTH CARE CENTRES	.3419*	.017
	HEALTH CARE CENTRES	ROYAL	-4.2768E-02	.670
		SQUH	-4.0391E-02	.698
		AL SHATTI	-.3419*	.017

*. The mean difference is significant at the .05 level.

APPENDIX 16 (b) Tukey HSD Test For Nurses In Different Health Institutions

Dependent Variable	(I) HOSPITAL NAME	(J) HOSPITAL NAME	Mean Difference (I-J)	Sig.
PAY	ROYAL	SQUH	-.7176*	.000
		AL-SHATTI	-.2343	.141
		HEALTH CENTRES	5.605E-02	.706
	SQUH	ROYAL	.7176*	.000
		AL-SHATTI	.4833*	.006
		HEALTH CENTRES	.7737*	.000
	AL-SHATTI	ROYAL	.2343	.141
		SQUH	-.4833*	.006
		HEALTH CENTRES	.2903	.159
	HEALTH CENTRES	ROYAL	-5.6053E-02	.706
		SQUH	-.7737*	.000
		AL-SHATTI	-.2903	.159
DOCTOR-NURSE RELATIONSHIP	ROYAL	SQUH	-.3042*	.002
		AL-SHATTI	-.1681	.264
		HEALTH CENTRES	-.4829*	.001
	SQUH	ROYAL	.3042*	.002
		AL-SHATTI	.1361	.413
		HEALTH CENTRES	-.1787	.283
	AL-SHATTI	ROYAL	.1681	.264
		SQUH	-.1361	.413
		HEALTH CENTRES	-.3148	.118
	HEALTH CENTRES	ROYAL	.4829*	.001
		SQUH	.1787	.283
		AL-SHATTI	.3148	.118
PROFESSIONAL STATUS	ROYAL	SQUH	.1217	.072
		AL-SHATTI	.2706*	.013
		HEALTH CENTRES	.2510*	.010
	SQUH	ROYAL	-.1217	.072
		AL-SHATTI	.1490	.210
		HEALTH CENTRES	.1293	.232
	AL-SHATTI	ROYAL	-.2706*	.013
		SQUH	-.1490	.210
		HEALTH CENTRES	-1.9657E-02	.886
	HEALTH CENTRES	ROYAL	-.2510*	.010
		SQUH	-.1293	.232
		AL-SHATTI	1.966E-02	.886
NURSE-PATIENT RELATIONSHIP	ROYAL	SQUH	-.3380*	.000
		AL-SHATTI	-.2971*	.019
		HEALTH CENTRES	.2627*	.020
	SQUH	ROYAL	.3380*	.000
		AL-SHATTI	4.083E-02	.767
		HEALTH CENTRES	.6006*	.000
	AL-SHATTI	ROYAL	.2971*	.019
		SQUH	-4.0833E-02	.767
		HEALTH CENTRES	.5598*	.001
	HEALTH CENTRES	ROYAL	-.2627*	.020
		SQUH	-.6006*	.000
		AL-SHATTI	-.5598*	.001
WORKLOAD	ROYAL	SQUH	-1.5462E-02	.846
		AL-SHATTI	-.3845*	.002
		HEALTH CENTRES	.1273	.266

APPENDIX 16 (b) Tukey HSD Test For Nurses In Different Health Institutions

Dependent Variable	(I) HOSPITAL NAME	(J) HOSPITAL NAME	Mean Difference (I-J)	Sig.
WORKLOAD	SQUH	ROYAL	1.546E-02	.846
		AL-SHATTI	-.3690*	.006
		HEALTH CENTRES	.1428	.264
	AL-SHATTI	ROYAL	.3845*	.002
		SQUH	.3690*	.006
		HEALTH CENTRES	.5118*	.001
	HEALTH CENTRES	ROYAL	-.1273	.266
		SQUH	-.1428	.264
		AL-SHATTI	-.5118*	.001
NURSE-NURSE RELATIONSHIP	ROYAL	SQUH	-1.8237E-02	.797
		AL-SHATTI	-.2072	.060
		HEALTH CENTRES	-.3855*	.000
	SQUH	ROYAL	1.824E-02	.797
		AL-SHATTI	-.1889	.119
		HEALTH CENTRES	-.3672*	.002
	AL-SHATTI	ROYAL	.2072	.060
		SQUH	.1889	.119
		HEALTH CENTRES	-.1783	.213
	HEALTH CENTRES	ROYAL	.3855*	.000
		SQUH	.3672*	.002
		AL-SHATTI	.1783	.213
OVERALL SATISFACTION	ROYAL	SQUH	-.1401*	.011
		AL-SHATTI	-.1071	.206
		HEALTH CENTRES	-4.1697E-02	.629
	SQUH	ROYAL	.1401*	.011
		AL-SHATTI	3.293E-02	.725
		HEALTH CENTRES	9.837E-02	.302
	AL-SHATTI	ROYAL	.1071	.206
		SQUH	-3.2929E-02	.725
		HEALTH CENTRES	6.544E-02	.569
	HEALTH CENTRES	ROYAL	4.170E-02	.629
		SQUH	-9.8366E-02	.302
		AL-SHATTI	-6.5437E-02	.569

*. The mean difference is significant at the .05 level.

APPENDIX 16 (C) Tukey HSD Test For Nurses In Different Practice Areas

Dependent Variable:

(I) PRACTICE AREA	(J) PRACTICE AREA	Mean Difference (I-J)	Sig.
WARDS	OPD	-1.9955E-02	.756
	CRITICAL CARE	-.1924*	.002
	OT	-.1194	.126
	A&E	.1635	.071
	NURSING ADMINISTRATION	-.1471	.152
OPD	WARDS	1.995E-02	.756
	CRITICAL CARE	-.1724*	.028
	OT	-9.9449E-02	.277
	A&E	.1835	.073
	NURSING ADMINISTRATION	-.1272	.262
CRITICAL CARE	WARDS	.1924*	.002
	OPD	.1724*	.028
	OT	7.299E-02	.417
	A&E	.3559*	.000
	NURSING ADMINISTRATION	4.528E-02	.686
OT	WARDS	.1194	.126
	OPD	9.945E-02	.277
	CRITICAL CARE	-7.2988E-02	.417
	A&E	.2829*	.011
	NURSING ADMINISTRATION	-2.7712E-02	.820
A&E	WARDS	-.1635	.071
	OPD	-.1835	.073
	CRITICAL CARE	-.3559*	.000
	OT	-.2829*	.011
	NURSING ADMINISTRATION	-.3106*	.017
NURSING ADMINISTRATION	WARDS	.1471	.152
	OPD	.1272	.262
	CRITICAL CARE	-4.5276E-02	.686
	OT	2.771E-02	.820
	A&E	.3106*	.017

*. The mean difference is significant at the .05 level.

APPENDIX 1
JOB SATISFACTION (before pilot)
(DOCTORS)

Facets	Number of items for each facet	Description
Pay	1. #9 2. #17 3. #42 4. #1 5. #29	<p>The annual increment in salary for doctors is not satisfactory.</p> <p>Considering what is expected of doctors at this hospital, the pay I get is reasonable.</p> <p>Compared to other hospitals, we at this hospital are being fairly paid.</p> <p>My present salary is satisfactory.</p> <p>Excluding myself, it is my impression that a lot of doctors in my hospital are dissatisfied with their salary.</p>
Professional status	1. #35 2. #10 3. #45 4. #33 5. #6 6. #38 7. #16 8. #24	<p>What I do in my job is really important.</p> <p>What I do in my job doesn't add up to anything really significant.</p> <p>If I had the decision to make all over again, I would still go into medicine.</p> <p>Even if I could make more money in another place, I am more satisfied here because of the working conditions.</p> <p>I am proud to talk to other people about what I do in my job.</p> <p>I am satisfied with the types of activities that I do in my job.</p> <p>When I'm at work in this hospital, the time generally goes by quickly.</p> <p>My particular job really doesn't require much skill or "know-how".</p>

Facets	Number of items for each facet	Description
Administration	1. #7 2. #39 3. #15 4. #25 5. #27 6. #46 7. #2 8. #18 9. #36	<p>There is ample opportunity for doctors to participate in the administrative decision-making process.</p> <p>There is a large gap between the administration of this hospital and the daily problems of medical service.</p> <p>It's my general impression that most of the doctors at this hospital really like the way work is organised and done.</p> <p>I have all the voice that I want in planning policies and procedures for this hospital and my unit.</p> <p>There are plenty of opportunities for advancement in my career.</p> <p>I'm generally satisfied with the way medical work is organised and gets done at this hospital.</p> <p>I have a great opportunity for continuing professional development.</p> <p>Administrative decisions at this hospital interfere too much with patient care.</p> <p>I have the feeling that this hospital in general – and my service too – is not organised with the needs of patients given top priority.</p>
Task requirements	1. #8 2. #44 3. #19 4. #22 5. #34 6. #11 7. #48	<p>I could deliver much better care if I had more time with each patient.</p> <p>I think I could do a better job if I didn't have so much to do all the times.</p> <p>My work load hinders me from keeping abreast of the professional literature.</p> <p>In my unit, I am sure my patients don't suffer because of the time spent on paperwork.</p> <p>I have plenty of time and opportunity to discuss patients with other colleagues</p> <p>A lower work load would improve my performance.</p> <p>Due to lack of time, I cannot assist every patient.</p>

Facets	Number of items for each facet	Description
Interaction	1. #28 2. #5 3. #47 4. #20 5. #43 6. #23 7. #37 8. #13 9. #31	<p>The people here get along together very well.</p> <p>Doctors in my department don't often act like "one big happy family".</p> <p>There is no team spirit here.</p> <p>My work is appreciated by my colleagues.</p> <p>There is a good deal of team work and co-operation between various specialities and departments in this hospital.</p> <p>Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.</p> <p>New employees are not quickly made to "feel at home" on my unit.</p> <p>I receive adequate teaching and guidance from my colleagues.</p> <p>I have no opportunity to discuss personal problems with individuals in my department.</p>
Patient-Doctor relationship	1. #14 2. #26 3. #40 4. #3 5. #32	<p>Patients are often too demanding.</p> <p>Many complaints of patients are trivial.</p> <p>Patients/relatives are generally not appreciative of what doctors do for them.</p> <p>The expectations of patients and their relatives on doctors are unrealistically high.</p> <p>I sometimes find I am asked to do things I am not trained for.</p>
Autonomy	1. #21 2. #4 3. #41 4. #12 5. #30	<p>I am sometimes required to do things in my job that are against my better professional judgement.</p> <p>I have the freedom in my work to make important decisions as I see fit.</p> <p>In my department my boss makes all the decisions and I have little direct control over my own work.</p> <p>I sometimes feel that I have too many bosses who tell me conflicting things.</p> <p>I have inputs into decisions that affect patients' management.</p>

APPENDIX 2

JOB SATISFACTION (before pilot)

(DOCTORS)

Instructions:

In this part of the questionnaire we would like to ask you about some aspects of your job with which you may agree or disagree. Please put a (✓) in the appropriate box.

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
1 My present salary is satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I have a great opportunity for continuing professional development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 The expectations of patients and their relatives on doctors are unrealistically high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I have the freedom in my work to make important decisions as I see fit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Doctors in my department don't often act like "one big happy family".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 I am proud to talk to other people about what I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 There is ample opportunity for doctors to participate in the administrative decision-making process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 I could deliver much better care if I had more time with each patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 The annual increment in salary for doctors is not satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 What I do in my job doesn't add up to anything really significant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 A lower workload would improve my performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
12 I sometimes feel that I have too many bosses that tell me conflicting things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 I receive adequate teaching and guidance from my colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Patients are often too demanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 It's my general impression that most of the doctors at this hospital really like the way work is organised and done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 When I'm at work in this hospital the time generally goes by quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Considering what is expected of doctors at this hospital, the pay I get is reasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Administrative decisions at this hospital interfere too much with patient care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 My workload hinders me from keeping abreast of the professional literature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 My work is appreciated by my colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 I am sometimes required to do things in my job that are against my better professional judgement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 In my unit, I'm sure my patients don't suffer because of the time spent on paperwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 My particular job really doesn't require much skill or "know how".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 I have all the voice that I want in planning policies and procedures for this hospital and my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Many complaints of patients are trivial.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
27 There are plenty of opportunities for advancement in my career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 People here get along together very well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 Excluding myself, it is my impression that a lot of doctors in my hospital are dissatisfied with their salary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 I have input into decisions that affect patients' management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 I have no opportunities to discuss personal problems with individuals in my department.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 I sometimes find I am asked to do things I am not trained for.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Even if I could make more money in another place, I am more satisfied here because of the working conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 I have plenty of time and opportunity to discuss patients with other colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 What I do in my job is really important	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 I have the feeling that this hospital in general - and my service too - is not organised with the need of patients given top priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 New employees are not quickly made to "feel at home" on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 I am satisfied with the types of activities that I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39 There is a large gap between the administration of this hospital and the daily problems of medical service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 Patients/relatives are generally not appreciative of what doctors do for them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
41 In my department my boss makes all the decisions and I have little direct control over my own work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42 Compared to other hospitals, we at this hospital are being fairly paid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43 There is a good deal of team work and co-operation between various specialities and departments in this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44 I think I could do a better job if I didn't have so much to do all the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45 If I had the decision to make all over again, I would still go into medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46 I'm generally satisfied with the way medical work is organised and gets done at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47 There is no team spirit here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48 Due to lack of time, I cannot assist every patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 3
JOB SATISFACTION (before pilot)
(NURSES)

Facets	Number of items for each facet	Description
Pay	1. # 1 2. #25 3. #43 4. #15 5. #34	<p>The present salary is satisfactory.</p> <p>Considering what is expected of nurses in this hospital, the pay we get is reasonable.</p> <p>Compared to other hospitals, we at this hospital are being fairly paid.</p> <p>The annual increment in salary for nurses is not satisfactory.</p> <p>Excluding myself, it is my impression that a lot of nursing service personnel at this hospital are dissatisfied with their pay.</p>
Professional Status	1. #12 2. #28 3. #44 4. #20 5. #38 6. #5 7. #33	<p>What I do in my job is really important.</p> <p>What I do in my job doesn't add up to anything really significant.</p> <p>If I had the decision to make all over again, I would still go into nursing.</p> <p>Even if I could make more money in another place, I am more satisfied here because of the working conditions.</p> <p>It makes me proud to talk to people about what I do in my job.</p> <p>I am satisfied with the types of activities that I do in my job.</p> <p>When I'm at work in this hospital, the time generally goes by quickly.</p>

Facets	Number of items for each facet	Description
Doctor-Nurse Relationship	1. #13 2. #29 3. #39 4. #26	<p>Physicians in general don't co-operate with the nursing staff on my unit.</p> <p>There is a lot of teamwork between nurses and doctors on my unit.</p> <p>Physicians at this hospital generally understand and appreciate what the nursing staff do.</p> <p>Doctors do understand the constraints faced by nurses.</p>
Administration	1. #46 2. #3 3. #30 4. #9 5. #24 6. #32 7. #6 8. #21 9. #14 10. #41 11. #36	<p>There is ample opportunity for nursing staff to participate in the administrative decision-making process.</p> <p>The nursing administrators generally consult with the staff on daily problems and procedures.</p> <p>There is a great gap between the administration of this hospital and the daily problems of the nursing service.</p> <p>It's my general impression that most of the nursing staff at this hospital really like the way work is organised and done.</p> <p>I have all the voice that I want in planning policies and procedures for this hospital and my unit.</p> <p>There are plenty of opportunities for nurses to advance in their career.</p> <p>I receive adequate training and guidance for what I do in my job.</p> <p>I'm really satisfied with the way nursing work is organised and gets done at this hospital.</p> <p>I don't spend as much time as I would like in taking care of patients directly.</p> <p>Administrative decisions at this hospital interfere too much with patient care.</p> <p>I have the feeling that this hospital in general – and my service too – is not organised with the needs of patients given top priority.</p>

Facets	Number of items for each facet	Description
Autonomy	1. #16 2. #23 3. #7 4. #47 5. #10	<p>I am sometimes required to do things in my job that are against my better professional nursing judgement.</p> <p>I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.</p> <p>In my service, my supervisors make all the decisions. I have little direct control over my own work.</p> <p>I sometimes feel that I have too many bosses that tell me conflicting things.</p> <p>I feel that I am supervised more closely than I need to be, and more closely than I want to be.</p>
Task Requirements	1. #4 2. #40 3. #45 4. #22 5. #37 6. #17	<p>I could deliver better care if I had more time with each patient.</p> <p>I have a great opportunity to attend courses in and outside this hospital.</p> <p>I think I could do a better job if I didn't have so much to do all the time.</p> <p>In my unit, I'm sure patients do not suffer because of the time spent on paperwork.</p> <p>There is too much clerical and "paperwork" required of the nurses in this hospital.</p> <p>I have plenty of time and opportunity to discuss patient care problems with other nurses.</p>

Facets	Number of items for each facet	Description
Interaction	1. #2	The nurses on my unit don't often act like "one big happy family".
	2. #18	The nurses here are not as friendly and outgoing as I would like.
	3. #48	There is a lot of "rank consciousness" at this hospital, nurses seldom mingle with others of lower ranks.
	4. #31	The nurses on my unit don't hesitate to pitch in and help one another out when things get in a rush.
	5. #42	Nurses at this hospital do a lot of bickering and backbiting.
	6. #11	There is a good deal of teamwork and co-operation between various levels of nurses at this hospital.
	7. #27	New employees are not quickly made to "feel at home" on my unit.
	8. #35	The expectation of patients and their relatives on nursing services are unrealistically high.
	9. #8	Patients/relatives do treat nurses with respect.
	10. #19	Patients/relatives are generally not appreciative of what nurses do for them.

APPENDIX 4

JOB SATISFACTION (before pilot)

(NURSES)

Instructions:

In this part of the questionnaire we would like to ask you about some aspects of your job with which you may agree or disagree. Please put a (✓) in the appropriate box.

	Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
1	The present salary is satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The nurses on my unit don't often act like "one happy family".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The nursing administrators generally consult with staff on daily problems and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	I could deliver better care if I had more time with each patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	I am satisfied with the types of activities that I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	I receive adequate training and guidance for what I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	In my service, my supervisors make all the decisions. I have little direct control over my own work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Patients / relatives do treat nurses with respect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	It's my general impression that most of the nursing staff at this hospital really like the way work is organised and done.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	I feel that I am supervised more closely than I need to be, and more closely than I want to be.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
11 There is a good deal of team work and co-operation between various levels of nurses at the hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 What I do in my job is really important.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Physicians in general don't co-operate with the nursing staff on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 I don't spend as much time as I would like in taking care of patients directly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 The annual increment in salary for nurses is not satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 I am sometimes required to do things in my job that are against my better professional nursing judgement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 I have plenty of time and opportunity to discuss patient care problems with other nurses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 The nurses here are not as friendly and outgoing as I would like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Patients/relatives are generally not appreciative of what nurses do for them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Even if I could make more money in another place, I am more satisfied here because of the working conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 I am generally satisfied with the way nursing work is organised and gets done at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 In my unit, I am sure patients do not suffer because of time spent on paperwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 I have all the voice that I want in planning policies and procedures for this hospital and my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
25 Considering what is expected of nurses in this hospital, the pay we get is reasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Doctors do understand the constraints faced by nurses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 New employees are not quickly made to "feel at home" on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 What I do in my job doesn't add up to anything really significant.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 There is a lot of team work between nurses and doctors on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 There is a great gap between the administration of this hospital and the daily problems of the nursing service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 The nurses on my unit don't hesitate to pitch in and help one another when things get in a rush.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 There are plenty of opportunities for nurses to advance in their career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 When I am at work in the hospital the time generally goes by quickly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 Excluding myself, it is my impression that a lot of nursing service personnel at this hospital are dissatisfied with their pay.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 The expectations of patients and their relatives on nursing services are unrealistically high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 I have the feeling that this hospital in general – and my service too – is not organised with the needs of patients given top priority.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 There is too much clerical and "paperwork" required of the nurses in this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38 It makes me proud to talk to people about what I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Moderately disagree	(3) Slightly disagree	(4) Neither disagree nor agree	(5) Slightly agree	(6) Moderately agree	(7) Strongly agree
39 Physicians at this hospital generally understand and appreciate what the nursing staff do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40 I have a great opportunity to attend courses, in and outside this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41 Administrative decisions at this hospital interfere too much with patient care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42 Nurses at this hospital do a lot of bickering and backbiting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43 Compared to other hospitals, we at this hospital are being fairly paid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44 If I had the decision to make all over again, I would still go into nursing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45 I think I could do a better job if I didn't have so much to do all the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46 There is ample opportunity for nursing staff to participate in the administrative decision-making process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47 I sometimes feel that I have too many bosses that tell me conflicting things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48 There is a lot of "rank consciousness" at this hospital; nurses seldom mingle with others of lower ranks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX 5 (After the pilot)
JOB SATISFACTION (DOCTORS)

Facets	Number of items for each facet	Description
Pay	1. #1	My present salary is satisfactory.
	2. #14	Considering what is expected of doctors at this hospital, the pay I get is reasonable.
	3. #23 r ¹	The annual increment in salary for doctors is not satisfactory.
	4. #32 r	Compared to other hospitals, we at this hospital are poorly paid.
Professional Status	1. #6	I am proud to talk to other people about what I do in my job.
	2. #19r	I sometimes feel my job is meaningless.
	3. #26	Even if I could make more money in another place, I am more satisfied here because of the working conditions.
	4. #29	I am satisfied with the types of activities that I do in my job.
	5. #34	If I had the decision to make all over again, I would still go into medicine.
Administration	1. #2	I have a great opportunity for continuing professional development.
	2. #10	There are adequate teaching and training activities for doctors at this hospital.
	3. #13r	Administrative decisions at this hospital sometimes interfere with patient care more than necessary
	4. #22	There are enough opportunities for advancement in my career.
	5. #30r	There is a large gap between the administration of this hospital and the daily problems of medical service.
	6. #36	I'm generally satisfied with the way medical work is organised and gets done at this hospital.

¹ Items followed by "r" should be reverse-scored.

Facets	Number of items for each facet	Description
Interaction	1. #3	I have satisfactory relationships with my patients and their families.
	2. #5r	Doctors in my department don't often act like "one big happy family".
	3. #8	The people here get along together very well.
	4. #11r	Patients are often too demanding.
	5. #12	Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.
	6. #16	My colleagues appreciate my work.
	7. #21r	Many medical complaints of patients are trivial.
	8. #25r	I have no opportunity to discuss personal problems with individuals in my department.
	9. #28r	New employees are not quickly made to "feel at home" on my unit.
	10. #31	Patients/relatives are generally appreciative of what doctors do for them.
	11. #33	There is a good deal of teamwork and co-operation between various specialties and departments in this hospital.
	12. #37r	There is no team spirit here.
Autonomy	1. #4	I have the freedom in my work to make important decisions as I see fit.
	2. #17r	I am sometimes required to do things in my job that are against my better professional judgement.
	3. #20	I have input into planning policies and procedures for my unit.
	4. #24	I have inputs into decisions that affect patients' management.

Facets	Number of items for each facet	Description
Task requirement	1. #7r	I could deliver much better care if I had more time with each patient.
	2. #9r	A lower workload would improve my performance.
	3. #15r	My workload hinders me from keeping abreast of the professional literature.
	4. #18	In my unit, my patients don't suffer because of the time spent on paperwork.
	5. #27	I have the time and the opportunity to discuss patients with other colleagues.
	6. #35r	I think I could do a better job if I didn't have so much to do all the time.
	7. #38	I have enough time off-duty.
	8. #39r	Due to lack of time, I cannot assist every patient as I wish to do.

APPENDIX 6 (after the pilot)
JOB SATISFACTION (NURSES)

Facets	Number of items for each facet	Description
Pay	1. #1	My present salary is satisfactory.
	2. #12r	The annual increment in salary for nurses is not satisfactory.
	3. #22	Considering what is expected of nurses in this hospital, the pay we get is reasonable.
	4. #37r	Compared to other hospitals, we at this hospital are poorly paid.
Professional Status	1. #5	I am satisfied with the types of activities that I do in my job.
	2. #15	Even if I could make more money in another place, I am more satisfied here because of the working conditions.
	3. #27r	I sometimes feel my job is meaningless.
	4. #32	I am proud to talk to other people about what I do in my job.
	5. #38	If I had the decision to make all over again, I would still go into nursing.
Doctor- Nurse Relationship	1. #10r	Physicians in general don't co-operate with the nursing staff on my unit.
	2. #21r	Doctors do not understand the constraints faced by nurses.
	3. #24	Teamwork between nurses and doctors on my unit is encouraging.
	4. #36	Physicians at this hospital generally understand and appreciate what the nursing staffs do.

Note: items followed by "r" should be reverse-scored.

Facets	Number of items for each facet	Description
Administration	1. #7	The nursing administrators generally consult with the staff on daily problems and procedures.
	2. #18	I'm generally satisfied with the way nursing work is organised and gets done at this hospital.
	3. #25r	There is a large gap between the nursing administration of this hospital and the daily problems of the nursing service.
	4. #28	There are enough opportunities for nurses to advance in their career.
	5. #30	There are adequate teaching and training activities for nurses at this hospital
	6. #34	I have enough opportunities to attend courses in and outside this hospital.
	7. #35r	Administrative decisions at this hospital sometimes interfere with patient care more than necessary.
Autonomy	1. #8r	I feel that I am supervised more closely than is necessary.
	2. #14r	I am sometimes required to do things in my job that are against my better professional nursing judgement.
	3. #20	I can make judgements and decisions regarding patient care.
	4. #40	I feel I have sufficient input into the care for each of my patients.
Task requirements	1. #4r	I could deliver much better nursing care if I had more time with each patient.
	2. #11	I have sufficient time for direct patient care.
	3. #13	I have the time and opportunity to discuss patient care problems with other nurses.
	4. #19r	A lower workload would improve my performance.
	5. #31r	There is too much clerical and "paperwork" required of the nurses in this hospital.
	6. #39r	I think I could do a better job if I didn't have so much to do all the time.

Facets	Number of items for each facet	Description
Interaction	1. #2	The nurses on my unit often act like “one big happy family”.
	2. #3	Patients/relatives do treat nurses with respect.
	3. #6r	Patients/relatives are generally not appreciative of what nurses do for them.
	4. #9	There is a good deal of teamwork and co-operation between various levels of nurses at this hospital.
	5. #16	I have satisfactory relationships with my patients and their families.
	6. #17r	The nurses here are not as friendly as I would like.
	7. #23r	New employees are not quickly made to “feel at home” on my unit.
	8. #26	The nurses on my unit don’t hesitate to pitch in and help one another out when things get in a rush.
	9. #29r	The expectation of patients and their relatives on nursing services are unrealistically high.
	10. #33r	Nurses at this hospital do a lot of bickering and backbiting.
	11. #41r	There is a lot of “rank consciousness” at this hospital, nurses seldom mix with others of lower ranks.

APPENDIX 7 (final form)

DOCTORS' JOB SATISFACTION SURVEY

Dear colleague,

Thank you very much for taking the time to complete this questionnaire which will help us to better understand your thoughts and feelings about your job.

The questionnaire asks for your views on a range of topics that affect you in your work. The main purpose is to identify the determinants of job satisfaction of doctors and their job-related stress. You are not asked to identify yourself on the questionnaire. There are no right or wrong answers - what is important is your opinion. I promise you confidentiality. Your name will not be revealed or associated with your response, nor will anyone be allowed to see your response.

I do hope that you will agree to participate in this research project, and that you will find it interesting to do so. I can assure you that your assistance will be very much appreciated.

Yours sincerely

Dr Mohammed Al-Shafae
BSc., M.D. (Oman) DTM&H (Liverpool, U.K.)
OMSB in Family Medicine (Oman)
Ph.D. student at the University of Hull, U.K.

PART I**Personal Background**

This part is made up of 16 statements or questions regarding your social and economic characteristics and aspects of your employment and training.

Please put a (✓) in the appropriate box.

1. Age Group:

1. 24-30 years
2. 31-40 years
3. 41-50 years
4. 51 or older

2. Sex:

1. Male
2. Female

3. Nationality:

1. Omani
2. Non-Omani

4. What is your religion?

1. Muslim
2. Christian
3. Hindu
4. Other - Please specify

5. Marital Status:

1. Single
2. Married
3. Divorced
4. Widowed
5. Separated

6. How many children do you have?

1. None
2. 1-3
3. 4-6
4. More than 6

7. Your family (for non-Omanis only) is:

1. In Oman (with you) or
2. In your country

8. How much is your monthly salary?

1. Less than 500 OR
2. 501-800 OR
3. 801-1200 OR
4. 1201-1400 OR
5. More than 1400 OR

9. What is your main speciality (or department)?

- | | | | | | |
|----|--------------------------|----------------------------|-----|--------------------------|-------------------------------------|
| 1. | <input type="checkbox"/> | Surgery | 7. | <input type="checkbox"/> | Radiology |
| 2. | <input type="checkbox"/> | Medicine | 8. | <input type="checkbox"/> | Family & Community Medicine (FAMCO) |
| 3. | <input type="checkbox"/> | Obstetrics and Gynaecology | 9. | <input type="checkbox"/> | Psychiatry |
| 4. | <input type="checkbox"/> | Paediatrics | 10. | <input type="checkbox"/> | Ophthalmology |
| 5. | <input type="checkbox"/> | Accident & Emergency | 11. | <input type="checkbox"/> | ENT |
| 6. | <input type="checkbox"/> | Anaesthesia | 12. | <input type="checkbox"/> | Other, please specify |
-

10. What is your designation (post)?

- | | | |
|----|--------------------------|--|
| 1. | <input type="checkbox"/> | Medical officer (or non-specialist) |
| 2. | <input type="checkbox"/> | Junior specialist |
| 3. | <input type="checkbox"/> | Specialist/Registrar/Lecturer |
| 4. | <input type="checkbox"/> | Senior Specialist/Senior Registrar |
| 5. | <input type="checkbox"/> | Consultant/Professor/Associate Professor |

11. What was your highest degree or qualification?

- | | | |
|----|--------------------------|---------------------------------------|
| 1. | <input type="checkbox"/> | M.D. (MBBS) |
| 2. | <input type="checkbox"/> | Post-graduate diploma (or equivalent) |
| 3. | <input type="checkbox"/> | Master |
| 4. | <input type="checkbox"/> | Membership (or equivalent) |
| 5. | <input type="checkbox"/> | Others..... please specify |

12. (For expatriates only) What is the total number of years you have worked as a doctor in Oman?
1. Less than 1 year
 2. 1-5 years
 3. 6-10 years
 4. 11-15 years
 5. More than 15 years
13. How long have you been working in your current post?
1. Less than 1 year
 2. 1-4 years
 3. 5-8 years
 4. More than 8 years
14. Your work experience in years is:
1. Less than 5 years
 2. 5-10 years
 3. 11-16 years
 4. 17-22 years
 5. More than 22 years
15. Weekly working time is:
1. 35 hours
 2. 36-52 hours
 3. 53-69 hours
 4. 70-86 hours
 5. More than 86 hours

PART II

JOB SATISFACTION

Instructions:

In this part of the questionnaire we would like to ask you about some aspects of your job with which you may agree or disagree. Please put a (✓) in the appropriate box.

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
1 My present salary is satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 I have a great opportunity for continuing professional development.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 I have satisfactory relationships with my patients and their families.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I have the freedom in my work to make important decisions as I see fit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Doctors in my department don't often act like "one big happy family".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 I am proud to talk to other people about what I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 I could deliver much better care if I had more time with each patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 The people here get along together very well.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 A lower workload would improve my performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 There are adequate teaching and training activities for doctors at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
11 Due to lack of time, I cannot assist every patient as I wish to do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Administrative decisions at this hospital sometimes interfere with patient care more than necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Considering what is expected of doctors at this hospital, the pay I get is reasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 My workload hinders me from keeping abreast of the professional literature.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 My colleagues appreciate my work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 I am sometimes required to do things in my job that are against my better professional judgement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 In my unit, my patients don't suffer because of the time spent on paperwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 I sometimes feel my job is meaningless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 I have input into planning policies and procedures for my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 I have enough time off-duty.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 There are enough opportunities for advancement in my career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 The annual increment in salary for doctors is not satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 I have input into decisions that affect patients' management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
25 I have no opportunity to discuss personal problems with individuals in my department.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Even if I could make more money in another place, I am more satisfied here because of the working conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 I have the time and the opportunity to discuss my patients with other colleagues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 New employees are not quickly made to "feel at home" on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 I am satisfied with the types of activities that I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 There is a large gap between the administration of this hospital and the daily problems of medical service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 Patients/relatives are generally appreciative of what doctors do for them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 Compared to other hospitals, we at this hospital are poorly paid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 There is a good deal of team work and co-operation between various specialities and departments in this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 If I had the decision to make all over again, I would still go into medicine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 I think I could do a better job if I didn't have so much to do all the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 I'm generally satisfied with the way medical work is organised and gets done at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37 There is no team spirit here.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART III

Job Stressors

Instructions:

Medical literature suggests that some of the following may be stressful to physicians.

Think about how each of these relate to your job in general, and then answer whether or not they are extremely stressful, moderately stressful, minimally stressful, not at all stressful or not applicable. (Use "not applicable" only if you never meet that situation).

Please put a (✓) in the appropriate box.

Stressors	(1) Extremely stressful	(2) Moderately stressful	(3) Minimally stressful	(4) Not at all stressful	(5) Not applicable
1 Interference of job with family life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Hospital referral and paperwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Night calls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Increased demand by patients and relatives for second opinion (local or abroad).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Daily contact with dying and chronically ill patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Uncertainty about diagnosis or treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Arranging admissions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Interruption of family life by telephone.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Dealing with friends as patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Emergency calls during clinic hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Conducting clinics.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Stressors	(1) Extremely stressful	(2) Moderately stressful	(3) Minimally stressful	(4) Not at all stressful	(5) Not applicable
12 Examining patients of the opposite sex.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 Time pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Dealing with the terminally ill and their relatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 No appreciation of work by patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Worrying about patients' complaints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Interference of job with social life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Lack of emotional support at home, especially from spouse.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Need to maintain own knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Coping with phone calls during night and early morning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Dealing with relatives as patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Dealing with problem patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Coping with new technology (e.g. computers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Work environment (clinic set up, equipment, nursing staff etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25 Unrealistically high expectations by others of your role.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Stressors	(1) Extremely stressful	(2) Moderately stressful	(3) Minimally stressful	(4) Not at all stressful	(5) Not applicable
26 Taking blood samples from patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 Remaining alert when on call.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now, could you please make any general comments you may have, as indicated below:

Please use the space below to comment on any issues within your hospital that *concern* you.

Please use the space below to comment on any issues within your hospital that *please* you.

Thank you for taking the time to complete this questionnaire.

APPENDIX 8 (final form)

NURSES' JOB SATISFACTION SURVEY

Dear colleague,

Thank you very much for taking the time to complete this questionnaire which will help us to better understand your thoughts and feelings about your job.

The questionnaire asks for your views on a range of topics that affect you in your work. The main purpose is to identify the determinants of job satisfaction of nurses and their job-related stress. You are not asked to identify yourself on the questionnaire. There are no right or wrong answers – what is important is your opinion. I promise you confidentiality. Your name will not be revealed or associated with your response, nor will anyone be allowed to see your response.

I do hope that you will agree to participate in this research project, and that you will find it interesting to do so. I can assure you that your assistance will be very much appreciated.

Yours sincerely

Dr Mohammed Al-Shafae
BSc., M.D. (Oman) DTM&H (Liverpool, U.K.)
OMSB in Family Medicine (Oman)
Ph.D. student at the University of Hull, U.K.

PART I**Personal Background**

This part is made up of 16 statements or questions regarding your social and economic characteristics and aspects of your employment and training.

Please put a (✓) in the appropriate box.

1. Age Group:

1. 20-30 years
2. 31-40 years
3. 41-50 years
4. 50 years or older

2. Sex:

1. Male
2. Female

3. Nationality:

1. Omani
2. Non-Omani

4. What is your religion?

1. Muslim
2. Christian
3. Hindu
4. Other - Please specify

5. Marital Status:

- 1. Single
- 2. Married
- 3. Divorced
- 4. Widowed
- 5. Separated

6. How many children do you have?

- 1. None
- 2. 1-3
- 3. 4-6
- 4. More than 6

7. Your family (for non-Omanis only) is:

- 1. In Oman (with you) or
- 2. In your country

8. How much is your monthly salary?

- 1. Less than 200 OR
- 2. 201-400 OR
- 3. 401-600 OR
- 4. More than 600 OR

9. Where do you work?

- | | | | |
|-----------------------------|--|------------------------------|---------------------------------|
| 1. <input type="checkbox"/> | Wards
(in-patients and day care wards) | 6. <input type="checkbox"/> | Special Care Baby Unit (SCBU) |
| 2. <input type="checkbox"/> | Outpatient Clinics (OPD) | 7. <input type="checkbox"/> | Delivery Suite |
| 3. <input type="checkbox"/> | Intensive Care Unit
(adults and paediatrics) | 8. <input type="checkbox"/> | Accident & Emergency |
| 4. <input type="checkbox"/> | Cardiac Care Unit and Post-Cardiac
Surgical Unit (CCU & PCSU) | 9. <input type="checkbox"/> | Oncology |
| 5. <input type="checkbox"/> | Operating Theatre (OT) | 10. <input type="checkbox"/> | Nursing Administration |
| | | 11. <input type="checkbox"/> | Other - please specify
..... |

10. If you are working on wards (with in-patients) which ward is that?

1. Medical Ward
3. Surgical Ward (any type of surgery)
4. Obstetric & Gynaecology Ward
5. Paediatric Ward
6. Psychiatric Ward
7. Other, please specify

11. What is your post?

1. Staff nurse
2. Senior nurse (all grades above Staff Nurse)

12. Usual shift pattern:

1. Day duty
2. Night duty
3. Mixed
4. Other, please specify.....

13. Your highest degree or qualification is:

1. Diploma in nursing (or equivalent)
2. Bachelor in nursing (or equivalent)
3. Master
4. Other – please specify

14. You have been in your current post for:

1. Less than 1 year
2. 1-4 years
3. 5-8 years
4. More than 8 years

15. (For non-Omani nurses) How long have you worked as a nurse in Oman?

1. Less than 1 year
2. 1-3 years
3. 4-7 years
4. 8-11 years
5. More than 11 years

16. Your work experience in years is:

1. Less than 5 years
2. 5-10 years
3. 11-16 years
4. 17-22 years
5. More than 22 years

PART II

JOB SATISFACTION (Nurses)

Instructions:

In this part of the questionnaire we would like to ask you about some aspects of your job with which you may agree or disagree. Please put a (✓) in the appropriate box.

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
1 My present salary is satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 The nurses on my unit often act like "one big happy family".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Patients/relatives do treat nurses with respect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 I could deliver much better nursing care if I had more time with each patient.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 I am satisfied with the types of activities that I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Patients/relatives are generally not appreciative of what nurses do for them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 The nursing administrators generally consult with staff on daily problems and procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 There is a lot of "rank consciousness" at this hospital; nurses seldom mix with others of lower ranks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 There is a good deal of teamwork and co-operation between various levels of nurses at the hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10 Physicians in general don't cooperate with the nursing staff on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 I have sufficient time for direct patient care.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
12 The annual increment in salary for nurses is not satisfactory.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 I have the time and opportunity to discuss patient care problems with other nurses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 I think I could do a better job if I didn't have so much to do all the time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Even if I could make more money in another place, I am more satisfied here because of the working conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 I have satisfactory relationships with my patients and their families.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 The nurses here are not as friendly, as I would like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 I am generally satisfied with the way nursing work is organised and gets done at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 A lower workload would improve my performance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 If I had the decision to make all over again, I would still go into nursing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Doctors do not understand the constraints faced by nurses.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Considering what is expected of nurses in this hospital, the pay we get is reasonable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 New employees are not quickly made to "feel at home" on my unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Teamwork between nurses and doctors on my unit is encouraging.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements	(1) Strongly disagree	(2) Disagree	(3) Neither disagree nor agree	(4) Agree	(5) Strongly agree
25 There is a large gap between the nursing administration of this hospital and the daily problems of the nursing service.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26 Compared to other hospitals, we at this hospital are poorly paid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27 I sometimes feel my job is meaningless.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28 There are enough opportunities for nurses to advance in their career.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29 The expectations of patients and their relatives on nursing services are unrealistically high.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30 There are adequate teaching and training activities for nurses at this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31 There is too much clerical and "paperwork" required of the nurses in this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32 I am proud to talk to other people about what I do in my job.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33 Nurses at this hospital do a lot of bickering and backbiting.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34 I have enough opportunities to attend courses in and outside this hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35 Administrative decisions at this hospital sometimes interfere with patient care more than necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36 Physicians at this hospital generally understand and appreciate what the nursing staff do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PART III
Job Stressors
(Nurses)

Instructions:

Medical literature suggests that some of the following may be stressful to nurses. Think about how each of these relate to your job in general, and then answer whether or not they are extremely stressful, moderately stressful, minimally stressful, not at all stressful or not applicable. (Use "not applicable" only if you never meet that situation)

Please put a (✓) in the appropriate box.

Stressors	(1) Extremely stressful	(2) Moderately stressful	(3) Minimally stressful	4 Not at all stressful	(5) Not applicable
1 Interference of job with family life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Hospital referral and paperwork.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Night shifts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Increased demand by patients and relatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Daily contact with dying and chronically ill patients	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6 Uncertainty about treatment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Arranging admissions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8 Dealing with friends as patients in the hospital.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9 Dealing with emergency situations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Stressors	(1) Extremely stressful	(2) Moderately stressful	(3) Minimally stressful	4 Not at all stressful	(5) Not applicable
10 Nursing patients of the opposite sex.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 Time pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12 Dealing with the terminally ill and their relatives.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13 No appreciation of your work by patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14 Worrying about patients' complaints.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15 Interference of job with social life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16 Need to maintain own knowledge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17 Coping with phone calls during working hours.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Dealing with relatives as patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Dealing with problem patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 Coping with new technology (e.g. computers).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21 Unrealistically high expectations by others of your role	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22 Taking several samples from patients in a short time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23 Language barrier when dealing with patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24 Conflict with doctors.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now, could you please make any general comments you may have, as indicated below:

Please use the space below to comment on any issues within your hospital that *concern* you.

Please use the space below to comment on any issues within your hospital that *please* you.

Thank you for taking the time to complete this questionnaire.

APPENDIX 9

THE REVISED JOB SATISFACTION SCALE (DOCTORS)

Component	Item No.	Description
Pay	1	My present salary is satisfactory.
	14	Considering what is expected of doctors at this hospital, the pay I get is reasonable.
	23	The annual increment in salary for doctors is not satisfactory.
	32	Compared to other hospitals, we at this hospital are poorly paid.
Professional Satisfaction	3	I have satisfactory relationships with my patients and their families.
	4	I have the freedom in my work to make important decisions as I see fit.
	6	I am proud to talk to other people about what I do in my job.
	19	I sometimes feel my job is meaningless.
	26	Even if I could make more money in another place, I am more satisfied here because of the working conditions.
	29	I am satisfied with the types of activities that I do in my job.
	31	Patients/relatives are generally appreciative of what doctors do for them.
	34	If I had the decision to make all over again, I would still go into medicine.
Professional Development	2	I have a great opportunity for continuing professional development.
	10	There are adequate teaching and training activities for doctors at this hospital.
	22	There are enough opportunities for advancement in my career.

Component	Item No.	Description
Teamwork	5	Doctors in my department don't often act like "one big happy family".
	8	The people here get along together very well.
	12	Doctors in my unit don't hesitate to pitch in and help one another out when things get rushed.
	16	My colleagues appreciate my work.
	25	I have no opportunity to discuss personal problems with individuals in my department.
	27	I have the time and the opportunity to discuss patients with other colleagues.
	28	New employees are not quickly made to "feel at home" on my unit.
	33	There is a good deal of teamwork and co-operation between various specialties and departments in this hospital.
	36	I'm generally satisfied with the way medical work is organised and gets done at this hospital.
Administration	37	There is no team spirit here.
	13	Administrative decisions at this hospital sometimes interfere with patient care more than necessary
	17	I am sometimes required to do things in my job that are against my better professional judgement.
Workload	30	There is a large gap between the administration of this hospital and the daily problems of medical service.
	7	I could deliver much better care if I had more time with each patient.
	9	A lower workload would improve my performance.
	15	My workload hinders me from keeping abreast of the professional literature.
	18	In my unit, my patients don't suffer because of the time spent on paperwork.
	35	I think I could do a better job if I didn't have so much to do all the time.
	21	I have enough time off-duty.
11	Due to lack of time, I cannot assist every patient as I wish to do.	

APPENDIX 10

THE REVISED JOB SATISFACTION SCALE (NURSES)

Component	Item No.	Description
Pay	1	My present salary is satisfactory.
	12	The annual increment in salary for nurses is not satisfactory.
	22	Considering what is expected of nurses in this hospital, the pay we get is reasonable.
	26	Compared to other hospitals, we at this hospital are poorly paid.
Professional satisfaction	5	I am satisfied with the types of activities that I do in my job.
	15	Even if I could make more money in another place, I am more satisfied here because of the working conditions.
	27	I sometimes feel my job is meaningless.
	28	There are enough opportunities for nurses to advance in their career.
	30	There are adequate teaching and training activities for nurses at this hospital
	32	I am proud to talk to other people about what I do in my job.
	34	I have enough opportunities to attend courses in and outside this hospital.
	20	If I had the decision to make all over again, I would still go into nursing.
Doctor-nurse relationship	10	Physicians in general don't co-operate with the nursing staff on my unit.
	21	Doctors do not understand the constraints faced by nurses.
	24	Teamwork between nurses and doctors on my unit is encouraging.
	36	Physicians at this hospital generally understand and appreciate what the nursing staffs do.

Relationship with patients	3	Patients/relatives do treat nurses with respect.
	6	Patients/relatives are generally not appreciative of what nurses do for them.
	16	I have satisfactory relationships with my patients and their families.
	29	The expectation of patients and their relatives on nursing services are unrealistically high.
Workload	4	I could deliver much better nursing care if I had more time with each patient.
	11	I have sufficient time for direct patient care.
	19	A lower workload would improve my performance.
	31	There is too much clerical and "paperwork" required of the nurses in this hospital.
	14	I think I could do a better job if I didn't have so much to do all the time.
Nurse-Nurse Relationship	2	The nurses on my unit often act like "one big happy family".
	7	The nursing administrators generally consult with the staff on daily problems and procedures.
	9	There is a good deal of teamwork and co-operation between various levels of nurses at this hospital.
	13	I have the time and opportunity to discuss patient care problems with other nurses.
	17	The nurses here are not as friendly as I would like.
	18	I'm generally satisfied with the way nursing work is organised and gets done at this hospital.
	23	New employees are not quickly made to "feel at home" on my unit.
	25	There is a large gap between the nursing administration of this hospital and the daily problems of the nursing service.
	33	Nurses at this hospital do a lot of bickering and backbiting.
	35	Administrative decisions at this hospital sometimes interfere with patient care more than necessary.
8	There is a lot of "rank consciousness" at this hospital, nurses seldom mix with others of lower ranks.	

APPENDIX 11**DISCUSSION GUIDE FOR FOCUS GROUP**

Thank you very much for agreeing to help out with this research. We call this a focus group; let me explain how it works, and then please let me know if something isn't clear.

This is a discussion, as though you were sitting around just talking. You can disagree with each other, or just comment. We do ask that just one person talks at a time, because we tape-record the session to save me from having to take notes. Nothing you say will be associated with you, I promise you confidentiality-- this is just an easy way for us to get some people together.

The subject is: Determinants of Job Satisfaction of doctors/nurses -- what things make doctors/nurses satisfied with their work. Before we start, does anybody have a question?

1. OK, now please introduce yourselves: your names, your jobs and your departments.

2. OK, let's talk about the most important factors for you as a doctor/nurse to be able to say "I am satisfied in my job"?

3. Are you satisfied at your hospital?. What are the positive and negative aspects of work here? (PROBE: do you have a desire to reduce your patient load or working hours? what about relationship with colleagues; Omani and non-Omani, your income, administrative regulations and policies?)

4. OK, let's talk about your career. You have chosen medicine/nursing as your career. Do you ever regret that choice? What are the factors/circumstances that lead to this feeling? (PROBE: Do you feel Omani society appreciates doctors/nurses?. Do you value your career as a doctor/nurse?).

5. Now let me ask you about your professional development/growth, opportunities for advancement, promotion. What do you think about all these in terms of your job satisfaction/dissatisfaction?

6. OK, let's talk about the degree of freedom you have in your work in making decisions relating to your patient management. Do you feel your point of view is taken into consideration in the decisions made in your department or the hospital in general?

7 Now, let's talk again about the relationships in the your work environment; colleagues, nurses, doctors, patients and others like supervisors, boss. What are your comments on that?.

8. OK, here's my last question. There are really many stressors in a doctor/nurse's job. Can you think of what things make you under stress? (PROBE: family life, personal and social life, patients and their families, work tasks, shifts, night calls, paperwork etc.)

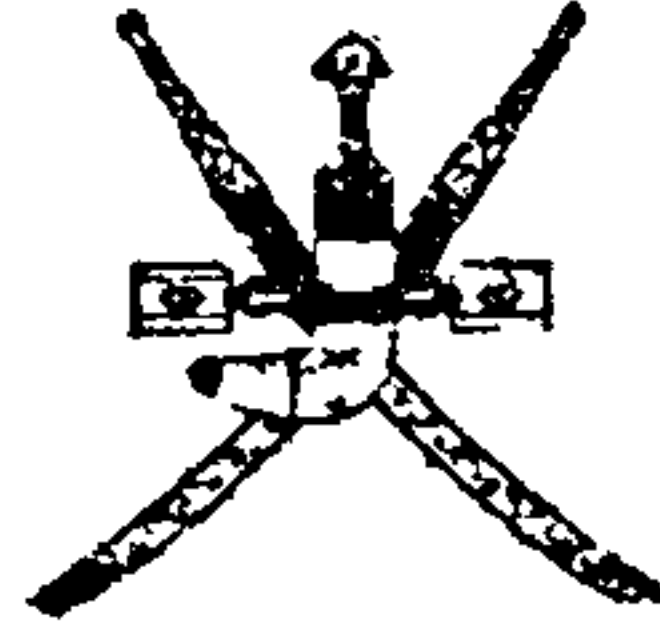
9. Before we break up, is there anything else you think would be important to talk about in this topic?.

OK, thank you very much for your help.

APPENDIX 12

LETTER TO DIRECTOR GENERAL (ARABIC)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

مِنَّا بَطْنَةُ عُثْمَانَ
وَمِنَّا بَطْنَةُ عُثْمَانَالرقم: حـ ١٤٩٨ / ٢٠١٩
التاريخ: ١٤٤١ / ١٢ / ٢٠١٩

شهادة لمن يبعث بالأمر

تشهد دائرة الدراسات العليا بوزارة التعليم العالي بأن الفاضل / محمد بن علي بن محمد الطائفي مبتعث من قبل جامعة السلطان قابوس لمواصلة دراسته العليا للحصول على درجة الدكتوراه في مجال Health System Management — The University of Hull في المملكة المتحدة وذلك على نفقة ذات الجامعة ويقوم حالياً بإعداد بحث بعنوان Job Satisfaction of Health Professionals (Doctors and Nurses) وهو متواجد حالياً بالسلطنة لجمع المعلومات اللازمة لبحثه .

نرجو التكرم مساعدة المذكور في الحصول على المعلومات والبيانات قدر الإمكان

شاكرين ومقدرين كل جهد ومساعدة تقدم للمذكور لتسهيل مهمته .

سعيدة بنت محمد بن محمد
مديرة الدراسات العليا

APPENDIX 13

LETTER TO DIRECTOR GENERAL (ENGLISH)

Director General of

January 24, 2000

Dear Sir,

As we discussed previously, I'm conducting a research project for Ph.D. at the University of Hull (UK). The main purpose of this research is to identify the determinants of job satisfaction of DOCTORS and NURSES in Oman.

I would like to ask your permission to start the study in your hospital in the first two weeks of February, 2000, if that convenient to you?

The study will be in two parts:

1. Questionnaires: for doctors and nurses, the doctors' questionnaire will be distributed to all medical doctors in your hospital and the nurses' questionnaire will be distributed to a randomly selected sample of nurses.
2. Focus Group Interviews: further details will be given later.

I assure all my colleagues, doctors and nurses, that any information they provide will be treated in strict confidence and will be seen only by myself. The questionnaire will be anonymous and will be used solely for the purpose of this study.

The questionnaires will be distributed and collected through the secretary's office in each department.

You may contact me at 820763 or 9368939

Thank you for your co-operation.

Yours sincerely,

Dr. Mohammed Al Shafae

APPENDIX 14

LETTER TO DOCTORS AND NURSES

Dear colleagues: doctors and nurses

I'm conducting a research (for Ph.D.) regarding the" **DETERMINANTS OF JOB SATISFACTION OF HEALTH PROFESSIONALS (doctors and nurses)"** in Muscat, Sultanate of Oman. Two methods were proposed for the study; a survey questionnaire and FOCUS GROUP discussions. The survey was conducted successfully with great co-operation from doctors and nurses in Royal Hospital, Al Shatti Hospital, the health centres in Muscat and SQUH. The second method is FOCUS GROUP. In this we are going to sit together in a group of 6 or 8 persons; half doctors and half nurses and we will talk about and discuss different aspects of your job that satisfy or dissatisfy you with reference to your hospital. The discussion will last about one hour. There will be refreshments and small gifts for you. The discussion will be tape-recorded. Your contribution will be strictly confidential, I promise you.

I do hope that you will agree to participate in this discussion, and that you will find it interesting to do so. I can assure you that your assistance will be very much appreciated.

Location: Your hospital.

Date & Time:

DR. MOHAMMED AL SHAFEE (GSM: 9368939, RESIDENCE: 820763)

APPENDIX 15**PART 1****DETERMINANTS OF JOB SATISFACTION OF DOCTORS AND NURSES**

Dr. Mohammed Al Shafae opened the focus group at the Royal Hospital on the 3rd of June 2000 at 1:30 p.m.

“Thank you very much for agreeing to help out with this research. We call this a focus group; let me explain how it works, and then please let me know if something isn’t clear.

This is a discussion, as though you were sitting around just talking. You can disagree with each other, or just comment. We do ask that just one person talk at a time, because we tape-record the session to save me from having to take notes. Nothing you say will be associated with you I promise you confidentiality—this is just an easy way for us to get some people together.

The Subject is: **Determinants of Job Satisfaction of Doctors and Nurses**—what things make doctors and nurses satisfied with their work. Before we start, does anybody have a question?

OK, now please introduce yourselves: your names, your jobs and your department”.

1. RN1, Staff Nurse, working at Paediatrics Ward. (Non-Omani)
2. RN2, Nursing Supervisor, Coronary Care Unit, Medicine Department (Omani)
3. RN3, Nurse, Oncology Department (Non-Omani)
4. RN4, Nurse, Medical Ward (Non-Omani)
5. RN5, Senior Nurse, Theatre (Omani)
6. RD1, SHO, Medicine Department (Omani)
7. RD2, Senior Registrar, Paediatrics Department (Non-Omani)
8. RD3, Junior Registrar Urology-Surgery Department (Non-Omani)

Note: R = Royal hospital

N = Nurse

D = Doctor

OK, let's talk about the most important factors for you as a doctor/nurse to be able to say, "I am satisfied in my Job"? What things made you satisfied with your jobs?

RN1-1: I've been working here for 13 years as a nurse and I'm working in Paediatrics Ward. So far, I can say that I'm satisfied with my job because I can help children ease their pain by playing with them, by talking to them and of course taking good care of them and their needs. You have to explain everything to their parents. So far, I can say that I'm satisfied with my job because I can make the children laugh.

RN2-1: I'm working in the Coronary Care Unit for 14 years. I feel I am satisfied with my work because I can help patients with acute myocardial infarction from the first day of admission when they are very critical until they are ready to go home...so I feel happy that I have done something nice to the patient.

RN3-1: I am satisfied with my job. I am here for only 11/2 years almost but I have long experience of oncology for almost 24 years. I feel that I have the experience and I can give patients what they need to adapt to the nature of the disease and can teach regarding chemotherapy and support for the patient and the family especially those families of patients who receive treatment for long term. This is the major source of my satisfaction.

RN4-1: If only I will scale my satisfaction from 1 – 10, I can say I am 7 satisfied. The people of Oman are very friendly, and our colleagues, we can say that we have maintained a good deal of relationship. This is the most important thing. But there is another aspect which we are looking forward to be more confident which is also one of the most important thing, that is regarding job security. We feel that there is no job security and sometimes we feel almost that we are going back to our country. We believe as Muslims that the world is not in anybody's hand but it is in one hand. But still as a human being, your feelings should be asked. Regarding the contracting, there is a lot of stressing news around you. But maybe with our more recent administrative

policies now, we can look forward to the better organisation of the human resources management both on the physical aspects or on the human resources itself.

RN5-1: As an Omani who has been working here in the Ministry of Health for the past 19 years, I can say that I am satisfied. First, is the search for this job and the years I had for this job and this job will stay with me for quite some time until now. The second thing that satisfies me is the time of work especially now in Oman that people are working in the private sectors and they don't know what time they would start and what time they would finish. They would start very early in the morning and finish late in the evening.

So these are the two things in which we could say is okay within this hospital or in the Ministry of Health as a staff. The other thing, working for these years, I have got a chance for expansion, for updating my training. I have attended different courses PD. I have been promoted. Whether I have been satisfied with this promotion, whether I deserve this promotion, that is a different question. But as the promotion happen when you are going to, wanting to have the chance to expand, to give the best to the service and to the patients as well.

RD1-1: I have been working in Medicine Department for the last 7 years. I am satisfied with my work and I have gained good experience in my chosen field and have given the most I have in treating my patients. On the other hand also, with my 7 years experience I got my membership in U.K.

RD2-1: If you ask me what is the most important factor, which satisfies me, as a doctor is to serve the patient's needs... at the same time, I am doing the job that I have chosen and I like to... In that way, satisfaction comes from the job, which I am doing as a doctor.

STATUS

RD3-1: The most important factor is that I feel I am doing something to the patient and that is the most satisfying thing for me. I have the opportunity to serve the sick and I like to do my chosen profession and I am satisfied.

Dr. Mohammed: Now, I want to know the positive and negative aspects of your work here in the Royal Hospital. What are the things that satisfy you, you mentioned about patient care, and what things dissatisfy you. I want to know what things made you dissatisfied in this hospital or what are negative or positive aspects of your job.

RN1-2: Positive. For me, I am contented as we are also doing the shifting and it is just the right thing because we have days duty and we also have days off which is quite compensated. But regarding pay, for me, I feel that I am not well compensated with the work I have done. Because for yourself, you can say what you have done for today and you can really say that it is not well compensated, because you really know yourself that you have been working hard. But then as the years go by, you are able to adapt to the situation because people in Oman are also very good and for us this is also very good place because it is safe. We will not be able to stay more than 10 years if you are not contented with the place because it is quiet and peaceful. We also appreciate the people because they are peace-loving people and you can also talk to them nicely and you can get such nice response from them. Regarding the relationships with the colleagues, Omani and non-Omani, I don't have any problem with that because I can go with any race as I can easily adapt to them. I don't have any negative aspect in my work other than the salary. I have been working here for 13 years and the promotion according to work wise is not well recognised. The promotion is not a ladder type. Whatever they hire you as a position like that and you can not go to the next position because they are telling you are hired only to that position. So whatever hard work, you are somewhat like frustrated, because you worked hard in that, you are supposed to be recognised in what you have done. For me, I have already work for 20 years as a nurse but then I am still like this. What else can you prove to them that you can also do something else more than what you are doing now. But as to the moment, because I have been here for 13 years, we are just contented, but if you will see other things, more advancement, of course, we will settle for that. We are sending money to our families, so we have to work as our salaries here are more higher than what we are earning in the Philippines,

so for the meantime, we are just contented with what we are having. But if we will get some advancement, then we will settle for that.

RN2-2: For positive things, we have talked already. I'm taking about the negative aspects. Our friend here has talked about the salary. As much you work, they don't appreciate it. You give to the patient and it is appreciated. But for yourself as a Ministry of Health, they don't recognise who you are and how much you did. This is the problem with Ministry of Health, you work hard, you don't work hard, you are lazy, you are sleeping, they don't appreciate it, and they don't see you work. So sometimes, you work for years and years, you're fed up. I can say straightforward, I am fed up with this MOH and one-day I will move out of this place. Because I don't want to waste my career years, how I can improve, how I can go ahead. As much you work, your salary is very very low and life here is very expensive. So with these things, I am not happy because sometimes I think I am doing this for the patients, but when I think of myself, I feel I lose my years to the MOH. This is negative. About my colleagues, some of them are good and some of them they don't like to hear the truth. Nobody likes to hear the truth. The problem everybody likes to polish somebody and that's all, which is not my type. So always I say straightforward, some people they are happy with that and some people they are not happy. And about regulations and policies, I think the Ministry of Health don't update this. They don't talk with the Civil Service to change these rules. They have to do something because they will lose a very good people and staff in this place, non-Omani or Omani. But they don't think about it. They think that they can recruit million people expatriates if one Omani can live. They don't think ahead, they are only thinking for today.

Dr. Mohammed: Why do you think that Omanis are more dissatisfied than the expatriates? Why Omanis are complaining?

RN2-3: Because we are not happy. The salary we are getting when the expatriate, they are doing the same job, their salary is higher, it is double than our salary. For example, when the expatriate will come, they are getting 800 – 900 and we're getting half of that. Either you work 15 years, you work for 20 years, is zero. And the same job we are doing and we can do better for that, but you don't get it. So this is ridiculous.

RN3-2: The negative aspect here is the paperwork. There is lots of paperwork we are doing and sometimes you think why I do this. You find a lot of things, which are

unnecessary. No benefit for the patients. Just maybe because we are asked to do this.

Dr. Mohammed: Do you think the paperwork affect the patient care?

RN3-3: O' yes, there is too much unnecessary clerical and paper work. There is wasting of time and effort of the staff while you can use this time to the patient or other activity, which can add to the patient care. Sometimes the content of the paperwork does not fit to what the patient has and what's going on. When we evaluate a mistake or a problem, who will depend on the paperwork. It will not help. So, this is the problem. Even if you try to consult your colleagues outside of this certain problem, processing the paper sometimes will not fit because it is different when you go and ask the patient and see what's going regarding management or what will happen. There should be another way of evaluating other problem, I'm sure what's going on is not the same as on paper. Could be half or two-thirds but that's not the whole thing. Regarding colleagues, I'm satisfied with my relationship with my colleagues, Omanis, or non-Omanis, it is very nice to work in such culture. I'm also very happy with my patients here in comparison with other patients from Jordan, it is easy to deal with Omani patients and very encouraging and I did not face any problem in teaching patients or compliance to their medications.

Dr. Mohammed: What about nurses in other departments, are they co-operative with your department?

RN3-4: Yes, there is co-operation.

Dr. Mohammed: Are there any feeling of rank consciousness, rank differences or discrimination to the ranks?

RN3-5: Sometimes, people get communications not the same. If you think that in a department you say that some people is good or very good and some people are more or less not the same. I think it depends on how the person looks at things and your relation with him.

RN4-2: Yes, I would like to agree with my colleague here, RN3 regarding paperwork and the salary, maybe because I am not the one in charge also and I heard from the Omanis that there is restructure regarding that. Some things that I can add regarding, I can not say that discrimination is maybe related to regulation, they are not looking into the qualifications of the person. They look more to the nationality. For example, if I

am a British, with my qualifications, maybe I could get double-double my salary. But even if I have a master degree, and I was treated like anybody who just have 2 years in school. So we can say that this is nationality wise and not qualification wise. This is really dissatisfying point. But it is not only in Oman, in Jordan we also have the same problem. Second is paperwork. I'm dissatisfied with the paperwork, which takes me from my patients. You can say that there is too much paperwork, which is unnecessary and it is not from your job description to do these things. May be this is doctor's work, or medical records job or maybe somebody else's, job. So the time given to the patients is affected. Sometimes we feel that we are overloaded because of these unnecessary activities.

RN5-2: I also agree with my friends here. Paperwork is really a frustrating factor and even the outcome of the nurses in this hospital. I just say one example, in addition to what they have said, because we work seven hours. It's either you spend seven hours with the patients or spend them doing some work. Paperwork is really a frustrating factor For example, the latest which was introduced to us, that the nurse has to sit down and lists the drugs and how much does these cost, which is called the billing system and this is really not a nurse duty. This is somewhat the finance department's duty. So this is the amount of paperwork, this is one example, but the amount of paperwork is really tremendous on the nurses. The nationality, not only the pay, but even in the listening to by the higher officials in the ministry. I'll give you a very simple example, as an in charge of the department of CSSD. I have been writing letters about some requests since the hospital opened and till date. I was finally approved for one or two. Somebody, white came, went to the Minister directly, and said good morning to the minister. Yes, went straight to the Minister and he brought me five. It is for the same purpose, for the same use, he got five. Not only that, and you might not believe, the request cost more than 30,000 Riyals. So what makes the difference, is the nationality. The doctors are always superior and they have no way to be touched. For example, just reporting an incident in this hospital, if a nurse failed to report an incident, which happened for a patient, the second day, should be in the Director general's office. But doctors are rarely writing incidents. Whenever we write for something, it has to be countersigned by doctors, even if I request tissue papers for the toilet, it has to be countersigned by a doctor. Look at the meetings which take place, sometimes the nurses have to be present and I am one of the people who attend many meetings, I voiced but how much is listening to me. But a very new junior doctor, who have just graduated

yesterday, say something and they listened to. This is discrimination in our job. The recognition of the job, internationally, the nurse could be a director general of a hospital and I know this is in Europe. In Oman and other countries, the nurse could only just be a member of a team for the doctor. The nursing and the medical profession, as a whole, is a different type of job. You cannot compare me in the hospital dealing with HIV patients, hepatitis and I think sometime we have been dealing with haemorrhagic fever, and we don't know anything about it with somebody in another job. We have been subjected to different types of risks. And yet, in the promotion, in the pay, there's nothing extra.

RD1-2: I feel we have a too much load in the clinics, which makes us see patients very quickly and no time to take proper history and to do proper examinations. Several times we have been talking about this to reduce the load in the clinic but nothing has been done.

The hours of on-call are quite long, especially for junior doctors. Sometimes you are on call for 36 hours, continuously, and there is no compensation for overwork. They are not paying us for overtime and no duty-off. I feel for the Royal Hospital, in particular, the research is difficult. The 4th point which I want to mention is that I'm not satisfied with the social circumstances in the Royal Hospital, I don't feel that we are working as a family. I believe in a hospital, we should work as a family and if we work as a family, this will lead to provision of good quality care to our patients. The last point about scholarships, as they said, there is some discrimination, not between nurses and doctors but there is discrimination between groups of people, some people because they have personal relations in the Ministry, or they know somebody big in the country, they will get scholarships to study abroad.

Dr. Mohammed: How is your relationship with your colleagues: Omani and non-Omani, different people coming from different countries, how do you feel your relations with different nationalities?

RD1-3: If I talk about myself, I have no problem with non-Omanis.

Dr. Mohammed: And who's the best?

RD1-4: I can not say. This is individual. I have good Omani friends as well as good Non-Omani friends in the hospital. So I have no problem with that. But in general, I

feel that there are some gaps in the relationships between doctors, which dissatisfy me.

Dr. Mohammed: What about different departments, you are in the Department of Medicine, what about the co-operation from other departments, like Surgery or Paediatrics?

RDI-5: As a social co-operation or personal, I think that is not the point. I feel there are some gaps, Paediatrics for example, I have no relation except with Dr. S. who is my friend because he is my neighbour and he was my classmate in the school, but not the other doctors. There is nothing which makes us close to each other and even there's no meetings like social meetings, like family members sitting together, we do sometimes in the department of Medicine, but as in general with Surgical, Paediatrics, or other departments, so we are lacking this.

Dr. Mohammed: What about your income because I heard Omanis are complaining about their salary? What do you think?

RDI-6: Yes. Most Omani doctors in Ministry of Health are dissatisfied with their present salary especially the junior doctors who get much less than their colleagues in the University hospital and who has same qualifications. Additionally, promotion is very slow and I don't think anyone as doctors can be promoted without additional degree even if you work for 10, 15 years, you'll be medical officer and your salary will be the same.

RD2-2: Regarding the question of positive points: Royal Hospital, has an excellent facility especially we have all the state-of-the-art gadgets and facilities to investigate and manage patients, so that is one of the strong positive points where we can be equipped with depending upon the urgency and get everything done including probably the biggest microbiological reports. So that amount of the facilities which is there is one of the very important positive point, which I find in this working department in the Royal Hospital. And another important thing is we have a lot of opportunity in improving ourselves for the knowledge point of view. We have an excellent library, programs for continuing medical education. And another important thing that doctors are happy about is teaching, I find a lot of opportunities to teach. We have students coming from the university whom we teach on a regular basis and we have the residents whom we always discuss with them, interact with them not only to teach but also to

learn from them. Also we have opportunities to teach the membership candidates and which gives a lot of satisfaction. These are some of the positive aspects of the Royal Hospital. The negative aspects are sometimes we have difficulty in getting some of the investigations organised mainly in relation to Radiology Department but by enlarge, it is okay. Another problem is maybe that we don't have the facility as one-stop journey. We have patients coming back and forth, if a patient comes today, you organise the investigation and you can only see them after 2, 3 weeks or a month, again, it goes on and on. There should be some sort of one-stop clinic. If I have to tell you, it might not be our speciality, like breastfeeding. You have a radiologist, pathologist, you have a nurse educator all that in a single stop, the patient comes in today, by the end of about 3 or 4 hours, the patient has what was their plan the patient should have. So that's sort of restricted strictly relation to certain specific problems are lacking which may made to be organised. There's no compensation for the extra work or additional work that you do, for example you do on-calls, you do week-ends, you do work on holidays. If you have intake today, today you have to work as well as next day you have to come. Also when we work on holidays, there's nothing either monetary or compensated holidays. Many may not agree, I feel that the working hours are short, relatively short which needs to be increased. Duration of working hours should be increased with adequate compensation in terms of financial or otherwise so that we can give a lot of input and sort out all of the problems as smoothly as possible. And also another negative point especially in our department is the one in four intakes, which does not give us the opportunity for back up when we are under pressure and also it does not give opportunity for research. For example, if I have to do something, I can't fit one day off in a week just for research purposes as we have seen in the west. They have one day in a week which dedicated only for research purposes, like here it is very difficult for us to do it. And by and large we have lot of difficulty in putting that, otherwise you only have to come in the afternoon and do it. Regarding the relationship with colleagues, we have excellent relationship both with Omani and non-Omanis. Coming to the income, I think income is almost stagnant. For example, how many number of years you have worked, it remains the same and if you look at the cost of living which has gone up enormously. For example, when I came here the cost of milk powder was one and a half Riyal and today it costs around 4 Riyals but the salary is the same. There is a marginal increase, but it is not so. I don't have much problems with the administration's regulations and policies, I think certain regulations and policies are required to streamline the facilities

given to the public and that's part of our line. Regarding the career, I have no regret for I have chosen my profession as a doctor, but the job satisfaction could vary depending upon where you are placed. Regarding the professional and growth, I have had an excellent opportunity for improving myself professionally, knowledge wise and otherwise. But if you come to the promotion wise, because I have been working here since 1987, and I was recruited as a junior specialist and I remain as a junior specialist almost until 1997 December. Only now recently they promoted me retroactively from 1997 December but there's no monetary benefit. Most of us were promoted from this post to another and actually lose on salary level. I think that should never happen whenever a person is promoted. Promotion should come with a little extra salary. But from a professional point of view, internally I have been promoted to a Senior Specialist, as was my designation as a junior specialist and working as a senior specialist for quite some time. So in that case, professionally, I have had the opportunity to work at a higher level but not monetary wise. This professional hospital promotion has given me opportunity so I can be working at a higher level so that my knowledge and my experience could be use at a proper basis. Coming to grading the freedom of work, I think I have to be aware that excellent facilities and there's no difficulty or there's no restriction on the patient management.

Dr. Mohammed: Can I ask **RD1**, what about the freedom, you can take decisions about your patients or always the senior people are involved and you can not take decision on your patients until seen by seniors? Do you face this problem?

RD1-7: No, I don't have. I work in a unit where they give full responsibility to manage and to decide whatever I choose to decide.

RD2-3: I think the freedom is there but anyway we work as a unit.

Dr. Mohammed: But nurses don't have the same freedom that doctors have.

RN2-4: No, I mean if you know your nursing care task, you don't need to ask. There is a task that you can do it yourself there is a task you have to ask your seniors. So it depends. But we happy with that.

Dr. Mohammed: But sometimes there is something that has to be countersigned by a doctor.

RN2-5: No, those are other things that of course, doctors have to sign that are not only in the hands of the nurses. Any medication that you give to the patient, you need the doctor to sign. That is anywhere in the world. For example, I am working in CCU, patient is having serious chest pain, and he needs analgesic. I don't have to wait for the doctor, I can give analgesic. I can give analgesic and then I can inform the doctor. NO need to wait for the doctor until he comes.

RN5-3: But we are not talking about medication. Medication should be authorised by the doctor, we re talking about aspects of demand, if your demand is in force. In certain decision, I think you should be able to take it yourself, without even going to a doctor who doesn't even know what you are talking about to countersign the paper.

RD3-2: Positive. Working loads and working hours are okay by 2:30 we finish most of the work. And about the duties, that are sad, we have problems, sometimes you have to take afternoon duties alternately. Those days will be a bit difficult but we have to adjust to it. Relationship with colleagues, Omani and non-Omani are okay. For the income and promotion, a bit negatives because we become stagnant in one post and that gives us a little frustration. Administration regulations and policies, as in other big hospitals we have to follow.

Dr. Mohammed: How do you feel about autonomy in your work?

RD3-3: Yes. Professionally I do surgery and see patients in the clinic, I can treat patients in the ward but for immediate decisions, that would be for the senior consultants or you may take decisions for justified reasons.

Dr. Mohammed: Do you have enough Continuous Medical Education here? Same as Omanis?

RD3-4: Yes, same as Omanis. You have to take more interest to go for workshops, conferences.

Dr. Mohammed: Do you get chance to go to conferences? Also nurses?

RD2-4: Yes. If you are going, you have to apply for a leave but expatriates might go on themselves.

RD1-8: Actually, recently there is a change last year, 1999, they are giving you a

leave not from annual leave, study leave in attending conferences.

RD2-5: I think there is a special leave for attending conferences.

RN3-6: For non-Omanis there is no application for leave, but if you can see that for those short courses or conferences, this is what I think personally something how much you are interested, how much is your willingness to attend and upgrade yourself, but the chances are there, and if nobody will stop you, then go. Even if sometimes we are going, I think this is negative as we are going on our time. But still, you have the chance to upgrade yourself in going to courses, I think it is accepted internationally.

Dr. Mohammed: This chance, is it the same for the staff nurses and senior nurses?

RN4-5: Yes, it is the same.

Dr. Mohammed: Does everybody get a chance to go for courses and conferences?

RN4-6: Sometimes it is open mainly during conferences. Even the Nursing Department, they are providing continuous medical education and courses.

RN5-4: It is for example, how well you are. They will not take a nurse straight from an institute to send her for a teaching, who doesn't have any clinical experience. The second thing is you should be a specific who, you belong to that group, and if you don't then you stay.

Dr. Mohammed: And you as Omani nurses, how does the community outside, the society look to you as a nurse?

RN2-6: It is totally different in 1980's and now. I can say that in 1980 it was very bad that time. People don't like nurses, they think that nursing is a cheaper job and it is very bad. But the life has changed, because there is no job, a lot of people joined nursing, so it came to other people that it's not a bad job.

Dr. Mohammed: Do you feel that the community appreciates you?

RN2-7: Yes. As I said, the life is changing, the family and society has accepted it.

RN5-6: The nursing profession is now accepted among the family.

RD2-6: If you look at the Omani public looking at the profession as a doctor, I think

we get a lot of appreciation and respect. For example, if you go anywhere, or I was on holiday and I have written that I was a doctor, and you were given some due respect. In that way you are looked up and respected.

Dr. Mohammed: Now, I want the nurses to comment on the things that you found stressful in your job.

RN1-3: Paperwork is very stressful

RN2-8: Yes, paperwork. Sometimes relative of the patients, they don't want accept what is the diagnosis or the doctor will explain to one relative and will come back and say nobody explained to me. You changed his opinion at all, and sometimes they don't appreciate as much you are doing. So we are having a lot of problems with regards to patient's relatives.

RN1-4: For example, the father will come, the doctor will explain, the next round uncle will come, again asking for explanation and we are in the middle of that because they will beg on us, we want the doctor, we want the doctor. Sometimes we are asking about the problem but the problem with us is the communication. Sometimes for a simple problem, we want to solve the problem itself but because of communication, we might say the things we want to say but it might be interpreted in some other way. So there is more complications it would be.

Dr. Mohammed: Is there a language-barrier between you and the patient?

RN1-5: Yes. Because Salalah is different and Sur is different. So we are confused even if you stay here for 13 years. So it's really a problem for us and sometimes it is only a small problem, but then we are helpless. Because we wanted to explain to them in a simple way but then we cannot. Because we are afraid, we might say other thing. So small things, they wanted to ask for a doctor where in fact we could solve it. But because of this language barrier, it is always a problem. And we are always in the middle because they will say, sister we want the doctor, and we are confused and we don't know what to do. So if it's already a big problem, we have to call the PRO, so they could help them. Because doctors are not their best to interpret all these things, simple problem they will ask. It's not really a doctor's problem after all. But then because of the language, it's better not to talk to be safe. Because as much you open your mouth, and you make some comments, it is a different thing.

RN3-7: To me, I don't face problem with the family of patients regarding treatment, diagnosis or something like language. Sometimes we face problems with physicians, they wanted to apply their own way. Sometimes you treat them in the work as a body of nursing and the staff will not go beyond more above his. You can not do this, you cannot do that and you have to come back to me. They want to do their own way. Sometimes you feel jealous that you have the information I want to apply and say what we want to say. You plan for today, how many patient and you agreed that we do this till 12:30, we co-operate with other department like pharmacy until 2:30 and we want to leave that much work with regards to therapy, new drugs because these people are not there and they want to finish work or something, but we compromise with these distribution.

RN4-7: I agree with Mr. RN3 with the care of patients. What they are thinking is, the patients are coming for the doctors. Sometimes your goals or ideas can be very big one and you feel it that you don't have the freedom to participate in management of the patients. Always you are dependent and only you are to receive orders. As you can see the nurses are the public relations, she is the medical records, she is finance, sometimes she is the security, sometimes she is social worker plus she is a nurse. So you can see that there is a big role for a nurse. And she is always on the first line, everybody come to her and ask, and even sometimes the discharge summary is not ready so she is writing the discharge in front of the patient. So you can not do something for the patient and the patient is expecting more from you.

RN5-7: In the 1980's we have less nurses and less patients. There are no big differences between doctors, nurses and technicians. The amount of job that I am assigned to do and the amount of responsibility and amount of fail that I do. I failed 3 times more than 2 times less responsibility of what I have.

RD1-9: I don't think that any doctor lived without stress. Another thing is the social stress, I don't think that we have given our kids enough time to teach them than other people working outside the medical field. We don't' have enough time for our families.

RD2-7: Management of patients, I think stress is a part of the job. While you are doing the job, the most stressful situation, which I have, is communicating with different hospitals. For example, I have one patient referred to the university hospital, I

may spend 45 minutes or even an hour communicating. I have to also have to send a patient to Khoula Hospital, I don't know how to speak, it is so difficult to communicate. And most especially the most stressful is to get ICU bed in this hospital. Probably they might have but whenever the person is asked, they pass you on to the other person and quite stressful being a doctor's job.

Dr. Mohammed: What do you feel, leaving your friends and family way back home and work here?

RD2-8: Well that is part of decision that you have taken on yourself. You have to come out of the country and stay here and that would put a little stress but this will not interfere with the job. Job is job and work is work.

Dr. Mohammed: What about the Omani culture, different people?

RD2-9: Here the interaction with Omani public is only in the hospital, and to some extent nowadays in the various social life, shopping, etc. otherwise there is not much interaction. In that way, we don't interact much with the local population.

RD3-5: For me the main problem is the relative of the patients, they want to do all things on the same day and another thing is we usually get calls from different departments. It will be stressful but it is part of your job. In the hospital, Omanis they are very nice but outside there is not much contact.

RD2-10: Regarding death and dying chronically-ill patients, they die although you feel bad. At times I feel that their pains get relived and the family also are also to some extent get relieved so that they can get on with their lives. But at times I had problems facing death of a patient especially when it comes to an unexpected death of a young patient. That has really stressed me at times. I remembered rarely two occasions that has really given pressure on me generally. I can remember, as an intern I lost a very young girl who had a pneumonia. Subsequently, especially unexpected death whether old or young patient are end patients, end people dying with illnesses expected or unexpected past your age and your profession. He doesn't last long probably we tried to do all but you get it as ordered or planned.

RD3-6: Chronically-ill patients, you know that it is going to happen. It is really stressful especially if he dies and you are there and you get so many calls. The duty day

will be very stressful. But as time goes on, we adopt to the situation.

RD1-10: Regarding calls, I hate calls. Even my 3-year old girl is scared if I have calls and keeps on asking me when I am on leave. For me it is a nightmare but I am happy with my work, it is challenging job for me.

RN3-8: Can I say something that makes me sad and sorry is that when a young patient had a relapse. So they come early and most of the time we are prepared, our whole unit. We are preparing the family and we try to feel that they see the worst explanation. So they will not be shocked, step by step.

RD2-11: Especially if this is a relapse or if they have complications, they have not complied with medications. You diagnose, you put them on medication and they just go home and being young they feel relaxed and they come back and that we lose them. See there needs to be a lot of education on the part of the patient especially when they go back to the community where they get a lot of inputs in other aspects of advice but may not be the proper advice for the patient. Stop taking steroids, stop taking medication and you will be fine.

Dr. Mohammed: You, as an Omani nurse, you don't have a problem in examining or nursing a man?

RN2-9: No. It depends on how you are treating the patient. You have to think the patient is your father, your uncle, and your auntie. So I think there is no problem.

RN3-9: I feel that some patients, they don't like female nurses and certain operations in some parts of their bodies, and they want male nurses. They feel shy or they don't want females.

RN4-8: I think you have to go by the rule here regarding opposite sexes, here female nurses you can not shave a male patient as well as expatriate male nurse to a female patient. This is very important.

RN1-6: Shifts, I don't think we have problem with that because we are in 3 shifts. From 7:30-2:30, 2:30-9:30 and 8:30-8:00 morning.

RN5-8: Morning is 7 hours, afternoon 7 hours and night is 11 hours. But it is almost

compensated for night duties.

Dr. Mohammed: Do you get medical complaints from patients through the administration?

RD2-12: Complaints come in a way but had not come properly in the administration.

Dr. Mohammed: But is it not as stressful or not causing stress?

RD2-13: It is stressful because from our point of view, you have to go and appear to substantiate.

Dr. Mohammed: What about problem patients, in the wards, in the day clinic, in the Accident & Emergency, do you get problems?

RN2-10: I face problems in the Coronary Care Unit, if a patient comes stable with acute myocardial infarction. The patient came talking nicely and then the patient went for cardiac arrest, the patient passed away. In that time we have problem with the relatives. They don't want to accept it. They say that the patient came home safe and now you killed the patient. So this is a problem, so they called police and they called everyone and they really can not accept it.

RN4-9: I think the prognosis or the treatment should be dramatically illustrated by a doctor or a nurse to the relative. So the expectation of the patient from the medical staff and doctors on the terminal cases. And as basic for a nurse the patient has to pass history, and this is the prognosis and the decision-maker is the doctor. And relatives who are not clearly aware of the prognosis of the patient, when the patient pass away suddenly were shocked, he was walking, he was talking and playing, you are killing him. So this I think maybe is communication-wise.

Dr. Mohammed: Thank you very much for your help and for coming here and meeting together. Thank you doctors and thank you nurses. The meeting was adjourned at 3:30 p.m.

APPENDIX 15**PART 2****DETERMINANTS OF JOB SATISFACTION OF DOCTORS AND NURSES**

Dr. Mohammed Al Shafae opened the focus group at the Sultan Qaboos University Hospital on the 5th of June 2000 at 12:30 p.m.

“Thank you very much for agreeing to help out with this research. We call this a focus group; let me explain how it works, and then please let me know if something isn’t clear.

This is a discussion, as though you were sitting around just talking. You can disagree with each other, or just comment. We do ask that just one person talks at a time, because we tape-record the session to save me from having to take notes. Nothing you say will be associated with you I promise you confidentiality—this is just an easy way for us to get some people together.

The Subject is: **Determinants of Job Satisfaction of Doctors and Nurses**—what things make doctors and nurses satisfied with their work. Before we start, does anybody have a question?

OK, now please introduce yourselves: your names, your jobs and your department”.

9. SN1, Staff Nurse, A & E Department (Omani)
10. SN2, Staff Nurse, Obs & Gyne Department
11. SN3, Assistant Nursing Supervisor, ICU Department
12. SN4, Staff Nurse, Female Medical Ward, Medicine Department
13. SN5, Staff Nurse, OPD-Obs & Gyne (Omani)
14. SD1, Registrar, Medicine Department (Omani)
15. SD2, Registrar, General surgery Department
16. SD3, Consultant, Medicine Department
17. SD4, Consultant, Paediatric Department (Omani)

17. SD4, Consultant, Paediatric Department (Omani)

18. SD5, SHO, Paediatric Department

19. SD6, Registrar, Medicine Department

Note: S = Sultan Qaboos University hospital

N = Nurse

D = Doctor

OK, let's talk about the most important factors for you as a doctor/nurse to be able to say "I am satisfied in my Job"?

SN2-1: I work in Obstetrics & Gynaecology so definitely am very happy to work in this part of the world because it is a very very busy area and I'm glad that I'm working for the department which needs more services in that area. I'm glad that I am able to provide the skills and knowledge that I've learned when I was a student and the experience I gained from way back home, I'm able to give the best I have here.

SN3-1: I am satisfied because I'm working with a challenging role. I joined here as an Assistant Nursing Supervisor and I got a role as Acting Asst. Head Nurse in the absence of the Head Nurse. So that's a challenging job for me. So whenever we are recognised, we feel that something has ought to do with our competency. So naturally, when that thing comes, we feel we are acknowledged and that is one factor that makes us satisfied in our jobs.

SN4-1: I could say that health is the most important thing on earth and each and everyone is worried about our health. Some happy in a way I could say the most important factor to feel good as a nurse or a doctor could be that we belong to the team, the health team wherein we care so much for others. We provide one of the basic services on earth, that could be one of the factor that gives our most satisfaction.

SN5-1: I am satisfied because I choose to work with OPD. I like to work there because I want to help mothers who have just delivered or the pregnant ladies. So I am happy to work there.

SN1-1: I am working in A & E which is the most attention area. But even if I am new

always I am running with new things, I' am happy because of the co-operation of my colleagues.

SD1-1: First, working as a physician in the Department of Medicine, I feel that the atmosphere or the climate in a certain unit is the most important for a doctor to be satisfied. I like to work in a unit where the people around me are nice and helpful. I like to work in a unit where the people around me are competent, they know what they are doing and they are willing to change. The change required is with continuous medical education and self-motivation before somebody points a finger to them.

For a female working staff, I would like to have a more friendly working set-up, I like to communicate with each one from the bottom, from the interns level to the head. The arrangement should be based on quite friendly, easy to approach person, easy to ask if there is enquiry, you could proceed with it and that is for the benefit of the patient, because you feel that the patient comes to you for that problem that you could provide the service and you would like to keep the service with best standard possible. We would like to prove the standard but the standards are going down with time. So always better communication, continuous health medical education, and communication with others in the modern field either in the hospital itself or outside, it could facilitate better services now inefficient. The other thing I am concerned about is the standard of service, or to myself satisfaction towards others. If we keep a standard now, say 10 out of 10, standard service is very good. If we keep the same thing in 5 years time, the service will be graded much lower because the expectations of the patients with the advanced technology and if I say that I will stay as I am or as we are now, we will be left behind.

SD2-1: Regarding job satisfaction, I am very much satisfied with my present job and I am very happy that I am a physician. There are two big difference actually, one is that I am serving the whole mankind a standard and I am happy that I'm serving the humanity regardless of the colour, age, sex, ethnic origin or areas, when I was a child I always look on doctors and I was just thinking that one day I could be a doctor. And *alhamdulillah*, now I'm a doctor which is a very good feeling

SD3-1: I have just came abroad and comment on satisfaction or dissatisfaction related to job or otherwise. Satisfaction, I think correlates with job expectations. It does not measure which field you are in or what you are doing. If you get what you expect, you

are satisfied and if you don't get what you expect, then you are dissatisfied regardless of the fact whether you are capable and you are expecting for something and you are incapable and you have set your expectation high. So an incapable person can still be dissatisfied because his expectations are higher and a capable or highly qualified person can be satisfied because he has set his standards lower. And I guess this goes true to all of us whatever the level of our expectations is. You can the same time be satisfied and dissatisfied with different aspects of the thing that you are doing for the same job. Like for example, as a nurse, a nurse can be overall satisfied that she is just serving the community and on the other hand she maybe dissatisfied with what her supervisors is causing her. So all these things and I think satisfaction can be viewed differently.

SD4-1: For me there are two important issues. One, for me to feel that I am satisfied is that I am delivering the best medical care and second is I am able to deliver this knowledge to others which are not known to them and create a team in my subspecialty that will, in fact, operate in my absence.

SD5-1: Actually, for me is more on the profession. As far as the profession is concerned, I am very very satisfied, why I choose this profession and all the medical services this entails. Regarding job, If I say that I am satisfied with my job and its circumstances, then for me it is not to close the door for any betterment in the future. And I feel that as a responsibility, as Dr SD4 said, to learn in order to provide care to my patient, which I feel, that is the most important aspect of our profession, to provide better care to them. So for me, I am not satisfied with my job because I have to do something more. If I am satisfied, full stop. So there should be a chance to do something more and more.

SD6-1: Nonetheless, the expectations that Dr. SD1 put under aspects and the aspects that Dr. SD3 laid down, we could agree and disagree on some of them. But my satisfaction comes with a very simple fact, which I hold true for myself. I feel satisfied at the end of the day, if I have done a little bit more for the patient than which I have done the previous day. And to now, I am able to do that and I am satisfied.

Dr. Mohammed: Also in the previous focus group, the major thing that makes doctors and nurses satisfied, is their patients and what they did for their patients. Now, are you satisfied at your hospital, University Hospital? What are the positive and negative

aspects of your work here? We can start with the nurses?

SD6-2: I was just been here for a month and I could answer that very shortly and simply that I am just not qualified to answer that right now.

SD5-2: Positive is, I feel, that regarding working of the patient and the facilities which are provided to the patients. I think they are better than other hospitals in Oman. But again, which I heard strongly similar aspect of job, I think is a negative sort of thing. Like some basic things, which we need quite often for our patients, and are not working properly since I arrived here such as CT scanners. They are available here but are not working properly which is very bad for the patients and is going for such a long time.

Dr. Mohammed: What do you think about your workload, relationship between patients and colleagues; Omani and non-Omani?

SD5-3: Regarding workload, because I am SHO, so SHOs are supposed to work like that, I think so. I cannot comment on the workload of consultants and registrars. But an SHO is used to work everywhere in the world.

SD6-3: If I can really take my last statement back and I think I am allowed to do that. In one month's time, I could give a little bit of what I have seen out in the university than in my previous work in the Ministry of Health... There's been a contrast, and I have some exposure working at the Royal Hospital as well in a number of time or periods. What I found in the University, we are talking in relative terms and in contrasting terms. The University technique is set to be more organised in its manner, regarding the approach to the patient, the approach to patient management, they are grouped here in forms of 4 levels of doctors and nursing staff and their interaction. The previous statement from Dr. SD5 that if you started from a student and going up to the consultant. I think everyone here is sharing with the responsibility. It's not really easy to say that who's working and who's not. I've seen over here consultants working in the notes, which I will tell you in most other places you would hardly find a scroll. That is very very good thing which I have noticed here and in other places I'm not blaming them as they do not have time to do it.

Dr. Mohammed: OK, nurses what about the positive and negative aspects of your job, workload, calls, and relationships with colleagues?

SN2-2: Positive to start with in this place is quite nice. Like I have been to few hospitals in different places, I just visited hospitals here but certainly the supplies here are always available, when you ask for them, you always get them most of the time. Personally, I have the opportunity to work in Saudi Arabia and then Muscat, so I find especially SQU is good and we are quite up to date in that way.

And we work as a clinical group team in our aspects, doctors/nurses everybody, in that way it is very nice.

And since we work in an educational organisation, we have to keep in touch with the trend which is another encouraging factor because we are clearly updated currently with so many things and we tend to attend lots of symposiums, seminars, conferences, and so on. So these are big advantages to be known.

Another thing is since we have students, we are able to help them in a possible way we could help them and a very rewarding thing because you are able to give them something which you have.

Negative thing to say is like the workload. You are not able to provide what you have because we have to do so many other things which takes time, as a nurse, I feel, I do not do what I suppose to do especially I work in Obs/Gyne, and there we really have to do a lot of teaching for the patients but seldom we do it because we are so busy doing the clerical work. In my 12 years career, there are so many things we never did there, in my hospital in my country, for example bringing the patients' files, from the medical record office, stamping the files, I'm not criticising the system here but it is just how it is like with us.

The clinic closes at 1:30, at 2:00 we are bringing the files, we are collecting the files, and the files get misplaced, very bad organisation in the Medical Records, sorry to say in that section there. Every second file is missing there and these are the files, which are very complicated ones. And then we send papers, because the lady arrives, so we write it on a piece of paper, we give it to the Medical Records, that is also missing now. Then the third visit, this thing starts. This is exactly the situation that we see in the OPD where turn of patients is about more than 120 a day, which is really bad scene. So these things takes our skills away, meaning we tend to do so much of clerical things, pulling trolleys, taking trolleys, there are no attendant nurses to do most of these pulling

things which doesn't happen elsewhere. You don't need a skilful person to do these things. You can utilise us for a better thing because you have taken the best here so the best can be utilised for the best purpose. That's how I feel. So that's the area that we really have to look into I guess, in this system. In the relationship part of it, Omani people are very friendly people, honestly, no comments really. I had the chance to work in few places, so I feel, it is very nice set up to work here because we have our freedom here although we come from different parts of the world, religiously or anything for that matter, we have our freedom. We are not forced to do something which we don't want to do. That is really the good part of it.

Income, that is negative part of it. Very disappointing. Because sometimes you get into a place you don't know what the set-up is, then you feel trapped. Personally, I feel, I'm in that category. You feel you can not go anymore, I'm talking from the nursing side. Because in this part of the world I heard that is no promotions when you're working as a staff, you're stuck. This is very disappointing because after all you are here for that purpose.

Dr. Mohammed: In Royal Hospital for example, about 74% of the nurses have salary less than 400 Riyals and here in the University Hospital, the majority of you have salary more than 400 Riyals, just opposite to Royal.

SN2-3: Yes, I can explain you that. Because, for example, you take me. When I came here, I didn't know what category I was coming in. They have promised me something but they did not give me that. The reason they say is that it is arranged in 4 different categories. So now from the first category to the next step, there's a big gap of difference of say about 500 Riyals. So even if you are skilful enough to work there, we gave you these we could not put you in between, so there were about 100 nurses caught into the mess. So I am one among them. That way, you can see, is a very bad situation.

SN3-2: Positive is the working conditions are excellent because we have got most of the facilities here, sophisticated machines and so on and so forth. The working relationship also is satisfactory and Omani patients are actually much more friendly people than in Kuwait where I worked before I came here.

Dr. Mohammed: What about the shifts? Are you compensated for the shifts? Do you

have days off?

SN3-3: That is the case everywhere in the world, we have extra duties but we are not paid extra for the shifts here but if we work so many hours a week, we have some many days off. That is the system here. And I think as far as nursing is concerned, you can choose, maybe you can work for 3 hours and you can get extra compensation, it depends on what you want. Instead of working for 14 hours, 16 hours, that system is different. Because in other countries especially in Asian countries and also in the Middle East this system is similar to this one. In fact, we used to get weekly one of those days. We have changed the system now, here at least we are getting 2 offs every week.

Dr. Mohammed: Honestly, if you compare the work you do here and that you were doing in Kuwait, which one is more satisfying; the work in Oman or that in Kuwait?

SN3-4: Yes, work-wise I am more satisfied here because again it is a teaching hospital and there are more options to learn and give your output, and participating in some of the TSD activities also most of the time. So I've got some chances to learn as well as to give to others also. That's what I have told in the first part that whether you're satisfied with your job, whenever the work is recognised, you feel that you're doing something great and we feel happy about it. That's one certain positive aspect. Negative aspect, as she told again is job insecurity. That is always the bad part, today your job is there and tomorrow it won't be there. Even if somebody misbehaves to you, you're not in a position to say that you didn't do the right thing. You have to swallow it. Even if he is a doctor or anyone, but if they're doing something not up to their mark, you're not in a position to say that you are not doing the right thing. Even if it is a friendly way, just to bring that person aside what you did is not right or what you told me to do is not right. That should not be there. I worked in Kuwait, once you go there, you are actually a permanent member, unless you commit a grave mistake or some serious offence, otherwise you are considered as a permanent member. But here it is on a contract basis, every year or every two years, and most of the people, there's so much of the internal politics they are making inside the hospital all because of this way. Each one will try to pull the leg of the other and they will try to impress more. Some sort of lobbies or whatever, that's what I mentioned with internal politics. The juniors they have their lobbies, the seniors they have their own lobbies and also different

nationalities have their own. They will support their own groups, they will not support other groups, something like that. And another thing, this promotions. I think doctors have more promotions and for the nurses there are no promotions. Even if we are still capable and all and they have acknowledged that also. At the moment they might ask you to act in that position and they will not give you anything extra and they will not promote you to the next position.

SD4-2: What about the annual rise, how much is it in percentage?

SN2-4: Everybody gets the same. Again, very disappointing. Say like 5 people in the department, every year, I would have given my best and appreciated already saying, o you did a good job, so you get added responsibility for being smart but the pay rise for the one who just works for around 8 hours, gets the same pay rise like me. So I'm only acknowledged verbally but I'm here for monetary reasons also. Then the next time your door is closed.

SN1-2: Almost all things have been mentioned about positive things already. I would just mention one thing, which is negative in my department. If you compare our hospital and Ministry of Health hospital, it is using its A & E exactly. But in our hospital, they are misusing the department. I mean, we accept cases, which are not emergency, this is made to not giving enough care for those emergency cases and we are keeping so many patients waiting outside.

Dr. Mohammed: Some Omani nurses are complaining about inadequate salaries and promotions. What is your reaction to that?

SN1-3: For me, I'm still new, I didn't work at the Ministry of Health before. When I graduated I started here, so I'm really happy with my salary.

SN3-5: Salary should not be the primary matter because when we do the work, though I came here as a Assistant Nursing Supervisor and act for her behalf, I don't get extra remuneration for that and I'm satisfied because I got at least extra responsibility. So that way, some acknowledgement is there and that means you are working and you have the potential and that is a stimulating factor. I took it as a challenge in order to prove that I could do it. Maybe the benefits should come later but that's not the pattern here.

SN5-2: Positive thing is that here in SQU we have the chance to learn more than our

colleagues who are not in the University hospital. Because we are the first batch who were accepted here in the University, I'm happy to work here. Negative thing is that we don't have enough time to communicate with patient because of too much workload. Like teaching them about breastfeeding, birth spacing, how to care for the baby and for the pregnant lady. And this time is much more than before, I don't know maybe the system have changed. All nurses in the Obs/Gyne-OPD are complaining about this. Also nurses are complaining about the maternity leave, especially now they changed the system because for a pregnant lady, after 36 weeks you have to start your annual leave.

SD4-3: So you don't start your maternity leave.

SN2-5: NO, after delivery only. They are working until term and they think it will be very difficult to work, so at 36 weeks they take a break and they take their annual leave. So suppose I take leave at 36th week and then I deliver at 37th week so that 3 weeks is gone because I took my maternity leave for 45 days. And then I'm asked to come to work after 45 days. So they leave the baby with the baby-sitter and come for work.

SD4-4: Is this here or in the Ministry of Health? What is in the MOH like?

SN5-3: It is here. In the MOH it is different than here. You can work until when you deliver then you can take annual leave and maternity leave. You can also take one month unpaid leave but you have to write a letter if you have any medical condition like C-section, any problem with the baby or if you're a lady with high blood pressure during pregnancy.

SD4-5: Is this a nursing decision because of shortage?

SN3-6: It looks like they expect much from the nurses and they don't want the productivity to come down just because of personal reasons and family problems and all. They try to keep it at a limit.

SD6-4: Yes, nurse in the Ministry of Health goes for about 3 months. Maybe it is because of a fact that there is adequacy of staff.

SD4-6: If you were given an option to come back after 45 days and be paid for another 45 days or come back after 3 months maternity leave. What would you choose?

SD6-5: I think it would be a very individualised problem because I've talked to a few

nurses and some people find it easier to leave the baby in somebody's care, some people would bring them so every person has a sort of individual problem with regards to that. Some people have a very accommodating family way back home or whichever.

SD4-7: So I think the middle solution is to suggest to the nursing department that they give the option for 3 months maternity leave or 45 days and 45 days when you come back.

NS2-6: They are not even asking, they are telling that you can take an annual leave.

Dr. Mohammed: What other aspects. Negative aspects of you job? What about salary and promotions?

SN5-4: We are happy here. I'm satisfied with my salary.

SD4-8: In my impression, all salaries are the same for local and expatriates. It's only for the local people it sounds more because the accommodation and some other things are added to them.

Dr. Mohammed: SD1 what are the negative and positive aspect as an Omani doctor? Your relationship with expatriate doctors and nurses?

SD1-2: Positive. Most needs are being provided in terms of education, in terms of even communication, like library and Internet. Negative points: working hours. Working hours, now I got a promotion. But before I work 104 hours/week as SHO in Medicine. 32 hours continuous work and does not leave me even a free weekend to go to.... I was post on call on Tuesday, I hit the highway, tired and exhausted and by the time I reached home I am still exhausted and I know I'm again on call on Friday. It has been a period of time and my feeling was very very. I was working 104 hours/week and a week has 168 hours, so you only have 64 hours outside of work. That is something to look into even the people I have talked to, they said they can do better for that. But when you speak to them, they expect you to do it because in their old times it is different and time has changed. I hope nobody from our junior staff will pass with that stage because you become so devastated with prolonged working hours. In the U.K. there are 3 grades of SHOs and each one with different pay. Example is Dr. W. She graduated in Glasgow in 1991 and she has a Diploma of Child Health. She has a postgraduate experience 8 years and has started working in her department and she is receiving the

same salary as 8 years back.

Dr. Mohammed: So does promotion depend on certain things here? Could you explain that?

SD1-3: I don't know. Probably the promotion depends on what certificates you have and not mainly on your performance. I don't know, maybe she has some social circumstances. But in other hospitals, when they assess you, at least there's some credit, some incentives. Because if she deliver to high level to start with, more are the expectations.

Dr. Mohammed: What about your salary, are you satisfied?

SD1-4: At present yes, but in the past no.

SD3-2: If you would ask about the positive aspects, yes there are lots of qualitative in this present job or position that I'm in. One of the most satisfying and qualitative thing is that I've been able to contribute, I think personally, quite a lot to this place because there was no nephrologist before I came. So I think that I have contributed a little bit whatever I could have had to the teaching that goes on in the hospital, both undergraduate and postgraduate levels. Whatever the limitations are in terms of my practice not having dialysis and so on, whatever I could have done other than availability of those modalities, I have the best of my capability to have done that. And it's always rewarding to see your patients happy. Plus having people from different parts of the world working with you in a cordial atmosphere, you could feel a sense of being in the right place. These things are all there. There are some other positive things that should be mentioned but I guess we have a limitation of time as well so I would not mention all of them. And there are also many negatives that I can not mention all of them again but I would say a few salient things that I feel that are important for me in my job or position. First of all, this is a university hospital, which means that it is a source of information for everybody not for just some people who are students. As

a part of this training that goes on, a patient should also be a sort of when he enters the university hospital, he becomes a student. So when I see a patient, if I were in a good university hospital, ideal situation, he should be educated of how he should be eating, what drugs should he be taking, how should he be taking, their side effect, their contraindications, so that when he leaves the hospital, he is not only taking a prescription and medication, he's also taking good information that when he goes home which is useful. The ways to how to live a healthier life. Now as we already have heard from the nurses that carrying the files, taking the files here and there, rather than that skill and time being utilised for patient education, a physician is spending more time with the patient to educate them, I do not know with my Arabic how much I can explain to them. And then the nurse does not spend time to tell them how should they be taking or how should they be spending their life and the pharmacies also does not provide that information. So the patient goes back home the same as he came in to the university hospital has not served the function of a university hospital. Quite disappointing. The other thing that I see here is a restriction on practice. Personally, I'm not sure that this applies to all the physicians. It is unrewarding if you have the skill that you can not practice and you can not disseminate. You're like a tree that is not bearing fruit but is capable of bearing fruit. Being a nephrologist, I know how to dialyse, I know how to follow transplantation but I'm not doing that. I don't know why but it's not that somebody is opposing me but there some other administrative reasons. The third thing is relationship with colleagues. As far as that goes, I think that this is normal in a place where you can find different personalities, and you have to live with them. Here in particular I can not complain, people are friendly and one has to be contented. I am happy with that. Administrative regulations and policies yes lots of hassles but no time to detail.

Dr. Mohammed: Please if you can. As I have explained, we want to know.

SD3-3: Well, this is the year 2000 and regulations and policies, they should be made to facilitate things, so that things can be done efficiently, appropriately in least amount of time with most financial, sort of, with whatever limited environment we have or I should say with most reasonable amount of money that things can be handled. Imagine the waste of resources that his hospital has done, don't communicate it to anybody, you're paying a nephrologist a good enough money and you're not utilising his capabilities. This is waste of resources when you could have hired anybody else, Dr. X, Y, Z. Maybe pennies compared to what I get, you would still be doing the same thing because you are not utilising me. So this is waste of resource. If there were good enough administrative regulations in the year 2000, it's not difficult to get a dialysis set up in more than 2 months. And here we stand after 1 year and 4 months without having the facility. So I think that some of these administrative regulations and policies are not only hindering, they are also providing financial damage to this institution.

SD6-6: I do appreciate what you're saying but having heard all your story out here, do you think the teaching part would have been the same quality which you're imparting as could have been the dialysis part if they could have hired somebody less weak.

SD3-4: I'll make no comment on that. It's not saying that I am dissatisfied. I am satisfied with whatever little that I have done but I am saying that it could have been better. Basically, as I said that disappointment is a tongue that goes with expectations. So it depends where you set your expectation level to disappointed or contented.

Dr. Mohammed: Dr. SD2, we've been hearing some of the dissatisfying things in the University hospital. What about interrelationships between doctors especially in the departments of Medicine, Surgery? Are there lobbies, national things and groups against each other.

SD2-2: This is common everywhere. It is common in my country, I heard this is going on in America also. Wherever there is human and living things, taking their breath in and out, it will be there.

Dr. Mohammed: Don't you think that they should work as a family?

SD2-3: Yes, This is the ideal. We always look for ideals and we always feel that we

should achieve the 100% goal, which is always difficult. I think this natural. Having the lobbies, political issues, differences and frictions, it's not unusual. So it is natural but it always affects us. It is not a good thing. It definitely affects our work, personality, workload, outcome, performance but we have to live with all these differences. We can not close our eyes and say, this is wrong, I'm going away.

Dr. Mohammed: Is it the same in your own country?

SD2-4: In some aspects, that place is good, in some aspects, this place is good. So you can not compare because that set-up is completely different and this set-up is completely different. The economic status of Oman and the economic status of my country is different. The population level of my country and Oman is different. The whole population of Oman is less than 2 million. The place Al Khoud in my country, where I lived, the population is 2 million. So it's completely different set-up so you can not compare these two things. But the common problems are always common and always there.

SD4-8: Just recently, one of the most dissatisfying account for me was the Outpatient's Clinic, when all patients come together at 8 am and wait until they have seen at 12:00. This is not good and I think it should be timed. They should be given appointment and they should be guaranteed to be seen in half an hour not just like cattle, sit in a place and then called whenever their number comes. And the other thing is that it takes a lot of time for little concern administratively. I think the administration be streamlined and be organised. A lot of things where doctors and nurses are involved in should be handed back to other people who should do the other work. Like auxiliary nurses should be introduced so that they should do the duty of washing the patient, cleaning the bed sheets and changing the bed sheets, checking the temperatures and weighing them in the outpatients. In fact auxiliary nurses or prostheses and nursing staff now run most of the outpatient's in big university hospitals. Basically, there's one nursing supervisor running the whole show and she has an army of ladies who are doing the things. It's not the duty of the nurses to run after the files and things like that.

SD6-7: In the same context, we are thinking of when you said about doctors are late coming to the OPD.

SD4-9: No, it's not late. What I mean is that, patients, they are given same time of

appointment, all come at 8:00 or 8:30. They do not have timed appointment like every 15 minutes someone will arrive. They all come together; they all sit in a place.

SD1-5: We have that system before but we faced the problem that the patient does not turn up on the time allocated.

SD4-10: Then the idea is not to punish everybody and abolish the system. The idea is to punish that person, so when they come late, they should either be given another appointment or they should join the end of the queue until we have seen the last patient and they have to wait.

SD6-8: I tell you there's a little problem because exactly that's the same in Sohar Hospital. What happens is the patient, what they usually say is, most of the people coming are not driving themselves. They are coming with their brothers, sisters, or taxi. They come and if you ask them they prefer to come early at the time they can be dropped and sit and wait.

SD4-11: No. They should have a time. If they want to come to the hospital the night before and camp in the hospital, it's not our responsibility. Our responsibility is to see them at the time allocated. I think that afternoon clinics will probably be introduced instead of having 40-60 patients, and you start 8:00 am and finish at 4:00.

SD2-5: I think the important factor in filling this kind of system, which was introduced earlier, is literacy. If the nation is literate, and they understand what you mean, then it's very easy to run that show and to run the system.

SD4-12: No. I think that's not the reason. You see, in private hospitals, they operate with appointments, so patients turn up on the right time.

SD6-9: My scenario of what I have seen for 12 years in Sohar. The amounts of patients that come, they are tremendous especially on OPD. We tried to put the slots and all that. But people do prefer to come at 8:00 in the morning for a number of reasons. You may not know that a patient has travelled 2 or 3 hours to come to your hospital and he's got to travel back 3 hours. So you don't expect him to be on the go for full credit.

SD4-13: The other thing is that we could solve this problem by in fact, allocating appropriate times to the patients according to their situation. Outpatient's should be

planned well in advance. Someone is coming from Al Khoud, you could put them at 12:00, and they come 15 minutes late. Someone come from Bidbid, so you put them at 9:00, because you ask them what would be the most convenient time for you and they come on time.

SD1-6: If you book 20 patients in the clinic starting at 8:00. Out of the 20 patients, 4 or 5 patients who doesn't come their time, and you say, you can not be seen now it is somebody else time. So he stand there and shouting, saying I have come all the way from Sur and you don't want to see me. I should go to the Administration, who do you want me to see?

Dr. Mohammed: Could we move to another point please?

SD1-7: SD5, are you satisfied with the Continuous Medical Education here?

SD5-4: NO. I don't think for SHO's there is a standard and recognised system of education. We have discussed it a lot in our meetings and we have started on our own basis and we feel very strongly that, except our morning meeting where we present our cases, there's no definite system of our teaching in which our senior are involved. Like the medical students, there is a prescribed system for their teaching.

Dr. Mohammed: You do not have journal clubs or meetings, discussion?

SD5-6: There are rounds in which we present cases but there is no definite journal clubs.

SD3-5: I think it is also perception of teaching and learning that is missing here which is an element that we need to reintroduce here. When we talk about physicians and continuous medical education, it has the idea of spoonfeeding. Hopefully, after the completion of your degree, is to come and pick and learn on our own from the environment that we fit. And now every time you tell me that there is no teaching, teaching, well, you don't need teaching, what you have to have is learning. Teaching and learning is a different thing.

Dr. Mohammed: He has no time as a medical officer.

SD3-6: This is what I am going to explain, because I know this because I've been involved into looking into this aspect. At present, out of whatever time the Senior

House Officer spend in this hospital, they spend about 11 ½ hours of structured, time devoted teaching. Lost in this areas which are thought to be learning areas are the people who need that education are not there. We would hardly see good enough numbers of SHO's in mortality meetings. We would hardly see good numbers of SHO's in Radiology meetings. We have Pathology rounds and we would hardly see SHO's there.

Dr. Mohammed: What do you think are the reasons?

SD5-7: Because we are involved in our work. The Radiology meeting used to be at 3:00 pm and we're carrying our pagers at 3:00 o'clock and we are writing the discharges.

Dr. Mohammed: I've been hearing in the univeristy hospital, they are concentrate more on the undergraduates but they are ignoring the postgraduate doctors. The opposite in the Royal Hospital, they teaching the undergraduates and the postgraduates. There are courses for membership exams, they have courses for diplomas but there is not in the university hospital. So what is your reaction to that.

SD3-7: I will clarify this. When water falls from a smaller height there is less of splash and when water falls on higher there is more of a splash. So if you have a container, and you're pouring water in it, and your container is small, you make to be sure that in this little cup of tea, you just drop it from right on the top, you don't drop from the roof. Likewise, knowledge is like liquid and you need to pour it down gently and you need a gradient before it can be absorbed. Now, let's say that SHO's are small containers and the mount of height that you are pouring the water from makes a difference. If you pour water in those SHO containers from height which is consultant, most of it will pour out. There will be more of a splash thing, I think everybody will hear more noise. Knowledge is poured again from the kettle which the Registrars and Senior Registrars, it would be easily absorbed, it would go in gently and it would be enjoyable. What we missed here is the middle grade. We have good Registrars, Senior Registrars who can teach but we don't have enough number and this is what we basically need. Right now we are making a lot of splash with water anywhere.

SD5-8: But we are lacking any definite system. I strongly feel that for the medical students, there is a definite system of education.

SD3-8: I will respond to all these questions because these questions have been opened with a great detail. If in the morning report is, somebody is sitting in with a blue register, marking down who is present and who is absent, you would see a full house. The next day the blue register not there, nobody takes the attendance the house is empty. This is not like a pre-medical where you need a cane and a rod. You have to be pro-active to life. And this is what is lacking. The last thing is that we have not evolved away to judge or categorise our Senior House Officers. We have no means to evaluate them that which among them is the horse and which among them is the donkey. You just treat them the same. We do not evaluate them on a regular basis, they do not have targets for them to meet. And I have tried that personally with 3 or 4 of the Senior House Officers that rotated with me. None of them has completed the requirements that they were supposed to complete despite of the fact that they were told to do that and lot of people and no exception to those who are here. They just say that this is not happening but they know that they are not doing it.

SD5-9: We are involved in our work and as Dr. SD1 said there are 104 hours duty in a week.

Dr. Mohammed: Now, let's move to the nurses. What do you think your chance of getting more education, professional growth and development?

SN4-2: I would say, I'm very happy with the ongoing education here for the nurses.

Dr. Mohammed: What about you SN5, as an Omani nurse, do you get the chance to learn more from your colleagues? Are there courses inside and outside the hospital that you can attend?

SN5-5: Yes there is some chance like international conferences and there are short courses inside the hospital.

SN1-4: This is what I want to stay. Compared to other colleagues working in the Ministry of Health, we re better than them.

Dr. Mohammed: As Omani nurses, do the Omani community and your families appreciate you?

SN5-6: Yes, very well.

SN1-5: Only the timing makes it difficult especially when you're doing the night shift till 11:00 pm. And when you get home it already 12:00 o'clock.

Dr. Mohammed: Anything more on the subject of satisfaction?

SD1-8: Yes, about communication not only among us here in the hospital, between departments but even communication with other SHO's and our colleagues in other hospitals in the Ministry of Health, Armed Forces Hospital, Police Hospital and others. There should be more communication.

Dr. Mohammed: What about the communication here in the hospital between your department and other departments?

SD1-9: I don't think it is bad. Whenever we need them they are always there and even they invite us to their own talks and their own symposiums.

Dr. Mohammed: I worked here long time back, always they are complaining because of lack of communication between departments.

SD1-10: I never felt it is hard to get access to anybody who are in need of other department. So we are satisfied with the communication within the hospital.

SN1-6: About the communication between the department, I can say it is enough. Sometimes in our department, we are really so busy. If we ask some help from the wards, it is very difficult for somebody to come and help us. I am talking about the nurses and they will say, I am also busy and we have lots of work. They are busy, yes they are having steady patient but not like us. Sometimes we are getting more than 20 patients at the same time and especially during evening shifts where we only have 5 staff.

SN4-3: That is the basic problem with inadequate staffing. It goes on in the entire hospital. As you have said, if they call for help, it's the same as in other wards. If there comes a cardiac arrest, they need 2 or 3 nurses there.

SN1-7: Especially during the night, the number of staff are less too.

Dr. Mohammed: What about the staffing in the medical departments?

SD4-14: It is overstaff. The number of patient is very small compared to the number

of medical staff in the department.

Dr. Mohammed: What about the staffing here in the university hospital, is it enough?

SD1-11: The ratio of senior medical staff are more compared to very few SHOs. Some departments they have shortage of staff and as a result of that they have too much workload.

Dr. Mohammed: What about the relationship with patients?

SD5-10: I feel our patients, they come to us from different parts of the country and there are so many contributor to health education and health services. So we all work as a team, Ministry of Health, Police Hospital, our hospital and even the involvement of the Ministry of Information for the newspapers, journals, etc. And our patients, when they come here they are investigated, they go to the Royal they are investigated and they go to the MOH health centres they are investigated, and each one is maybe delivering different messages.

Dr. Mohammed: What do you feel with your relationship with your Omani patients in general here in the university hospital.

SD2-6: As I have no much experience in exposing to people of other nations but I am happy here that people are very well, they understand the matter clearly. They try to respond to the message up to their limitation. If I compare this nation to my nation, I should put Omanis ahead.

SN4-4: The most problem we faced is the language. But we try to do non-verbal conversation.

Dr. Mohammed: What about communication with supervisors, is there any problem between junior nurses and senior nurses?

SN4-5: It is good. I could say, we are comfortable here. The inter-personal relationship, everything is good, I'm really satisfied with my relationships with supervisors, with colleagues and with patients. But every where, in all the matters you will have problem. When you come new, you try to show off your best anywhere. So when you try to do that, they sense it like you are trying to show off too much. And they try to put you down at times. It depends on the individual who to take it. Some

people take them as a positive criticisms and some of them can get depressed. So it depends on the individual to come out with it. Otherwise it is good.

SN2-7: The other contradicting factor because of the uncertainty of the job. I have experienced that few other girls would say that like because suppose the senior is there and you come as new and you're a little bit shaky. If she is too smart, I will have that persons to be thrown out because these things are happening too quickly here. So the new person, suppose she is coming from India and she has only 3 years experience, so it is very difficult for us to cope up. She wants to show her best and her skills and everything to impress. And here she is not taught anything properly, I am not talking about the TSD thing, your set-up, how to go about, policies and these kinds of stuff. So then you are in a lot of pressure because the senior one doesn't teach her because she is threatened and younger one is feeling very insecure because she is not taught properly. So this what goes on, it's basically because of the insecurity.

Dr. Mohammed: what about you doctors, are there problems between different grades?

SD2-7: As far as I know, we are in good relationship with each other.

Dr. Mohammed: There are many stresses in the doctors and nurses jobs, can you think of anything that makes you under stress? And I will share with you what we have got in the Royal Hospital, many topics have emerged in that focus group. They mentioned about paperwork, chronically-ill patients, death and dying treatment of relatives of patients, relationship with relatives when somebody is sick, calls, social life, conflicts with doctors, nurses. So what do you feel about those?

SD3-9: As a nephrologist here, one of the stress is even if you are not on call, you are afraid that something is going to happen in the hospital and somebody would be calling you because there is something going on in the hospital. Plus if I have a sick patient that I am following. When they come, then I am under stress and when you go home one has to know that they are in safe hands. And if you do not have a coverage, being a solo practitioner in this subspecialty, you go home stressed that I don't know how is your patient going to be taken cared of over the week end. Oftentimes, it results in just the way to peep and see how your patient is. In that way, you jus relieve a little bit of the stress and then another stress in your family, you should not be going to the

hospital, it is your off day and you are not supposed to be going there. So this is a conflict that a physician we have to live with it. Perhaps something that should not be happening and if it wasn't there it would have been a little more better.

SD1-12: Too many bleeps. I would be under stress is when there's something comes out of the blue, somebody is absent that you will have to cover.

Dr. Mohammed: Nurses, what things put you under stress?

SN3-7: Actually when we set goals consistent to our set up and system, I think our stress will be less. Because most of the stress I think is self-imposed, system imposed. So if you have a balanced-personality you can overcome most of the stress, you know how to deal with the stress. For people like me in the ICU, anytime you can be stressed but as time passes, you get used to it. In a family, if they marry a nurse or a doctor, I think they should know this that they will be called for extra duties and all.

Dr. Mohammed: What about shifts?

SN5-7: No, I don't do shifts.

SD6-10: What I see here is that other people want to put you under stress and that is true everywhere. And if someone else try to stress you, the problem is not really a general problem. As they used to say in France, if you are stressed, take a deep breath, hold your breath for a few seconds and then take a look into the problem. And there you could see that it is not a general problem and you can sort it out.

Dr. Mohammed: Now there are many terms emerged, in the west, physician impairment, burn out, job-related stress and in the west, more suicidal and more alcoholics among doctors.

SD6-11: I will come to that which is related more simply to culture. For example, during the weekend, you have done your work from Saturday or Monday to Thursday, and for Friday, Saturday and Sunday and you get stressed and you will be able to cope up. This has been brought up by Dr. Abdulla Al Riyami in the conference in Nizwa and it is very supplemental for the society.

SD4-15: I have just started, so for me it is the demand of the work has plummet from

the way I used to, and they are OK.

Dr. Mohammed: But you have been here before.

SD4-16: Yes, but I need to evaluate the situation and see

SN1-8: Only if I am working with RTA's. But I'll get used to it as a nurse.

SN4-6: That I want to say. In the Female Medical Ward we got chronically-ill patient for 2 or 3 years. So we are the ones under physically-stressed. Those bed-ridden patients and needs total care so you give them wash, feed them. But we also have patients like the vasiculars who are the ones who make us stressed because they keep crying all the time. At times before, the ward is full of sickle-cell patients and in that case in each corner you have to get a pain. Sister, pain, pain, pain, the infusion pump is alarming and the syringe pump alarms and in that case we do have mental stress.

SN5-8: Yes. All of us nurses are impacted with that thing. You always feel for the patient. When they cry and you feel like crying and if someone dies,, you really feel sad. That is there always. Especially if the patient is young and you took care of them and when they die, you really feel sad and there are people who mourn for 1 week in our department.

SD1-13: Does doctors make you stressed?

SN4-7: Yes, they do. Not always but sometimes. We nurses stay with the patients throughout and the doctor just walk in for half an hour or so, they are not the ones who are physically present throughout. So they got to put their trust in us and trust what the nurse says. So when they come and ask, did this patient vomit? I say yes, then will you trust me but then you get to ask the patient also? It is sad to say that some of the doctors, they don't really trust you. How come you say this and she says like this? So you feel sad because you really work for the patient, and you have so much thins and when you are not trusted, you feel stressed.

SN3-8: What about your medical orderlies?

SN4-8: That again contributes to the physical stress. Though we have medical orderlies in the wards. At times, what happens is we got to push the patient down to the x-ray for a chest x-ray and I don't understand the policy here, why don't they do a

portable x-ray? It's quite easily done in our hospitals whereas they ask plenty of questions and still they say, no we will not do it, you can send the patient down. It is so funny to push the patient in a cart, so much manpower. There should be 2 nurses holding and also discomfort for the patient.

SD4-17: I can answer that the policy of not doing too many portable x-rays is that the portable x-rays are not as good quality as the departmental films. You have to weigh the patient's discomfort and the reason that the patient is in the hospital is not just to be as free from pain and discomfort as possible, but also to find out what is going on.

SN4-9: I could say that the nurse is being stressed in all sides from the paramedicals, they think the nurses are free.

Dr. Mohammed: Thank you for participating in this research.