

**A Survey of Intention to Leave, Job Stress, Burnout and Job Satisfaction among  
Nurses Employed in the Ha'il Region's Hospitals in Saudi Arabia**

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## **Abstract**

Nurses in Saudi Arabia, as in other Arabian Gulf countries, may be nationals or non-nationals. Frequently, non-national nurses predominate in a workplace, and as they are contracted, there is a high turnover among them. Similarly, Saudis do not readily accept a nursing career, and they find it difficult in a working environment that is foreign to their cultural and Islamic practices. This study identified the nurses' intention to leave using psychometric measures of job stress, burnout and job satisfaction within a population of nurses (N=297) working in the northern province of Ha'il, in the Kingdom of Saudi Arabia.

A survey design method was employed using a descriptive correlational analysis and factor analysis to test relationships within and between the four concepts: job stress, burnout, job satisfaction and intention to leave. A questionnaire containing these measures was used as the research instrument. The questionnaire was in six parts; however the dominant instruments used were the Maslach Burnout Inventory (Maslach & Jackson, 1984) and Price and Mueller's (1981) job satisfaction survey.

The study results are that intention to leave is significantly associated with job satisfaction, job stress (uncertainty on treatment) and burnout (emotional exhaustion and personal accomplishment). However, survey questions asking whether the respondents intended to stay or intended to leave received a mixed response, with a majority of respondents intending to leave as soon as possible and a similar majority intending to stay. The results show an association between nurse job satisfaction and burnout, although there was no relationship between job satisfaction and job stress. Respondents who are emotionally exhausted and depersonalised tended to have low job satisfaction. In terms of stress and burnout, as expected, those who reported higher burnout levels tended to also report high stress levels particularly for factors such as workload and uncertainty on treatment.

The demographics and the work profiles for the Hail nurse participants were within the Kingdom's statistical norms, although there was a higher proportion of Saudi nationals. The participants were predominantly women under 30 years of age who held a diploma of nursing, had fewer than 10 years of nursing experience and had thus spent fewer than 10 years with their employer. The minority of non-nationals were predominantly from the Philippines and India.

The implications of these findings are that Ha'il nurses were largely dissatisfied with their jobs. The Ministry of Health is aware of the healthcare issues, which were high insurance premiums and low standards of healthcare; international competition for a small pool of registered nurses; national nurse remuneration based on factors other than competency and concentration of healthcare in Riyadh, Jeddah, Makkah and Dammam.

Future research could utilise this study's model to examine the correlation of job stress, burnout, job satisfaction and intention to leave among registered nurses on a broader scale in other work environments, in other regions within the Kingdom of Saudi Arabia and globally to strengthen generalisability.

**Keywords:** intention to stay, intention to leave, propensity to leave, job satisfaction, job stress, burnout, Saudi nursing, Ministry of Health, Saudisation/Nitaqat.

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## **Dedication**

I dedicate this achievement to my beloved wife for her love, patience and the unlimited support she has given me during this journey. I would not have been able to accomplish this work without her support.

This thesis is dedicated with love to my parents for their continuous support and encouragement throughout my doctoral studies. My parents instilled in me the courage to challenge myself and to set the highest goals and confidence to achieve them. They encouraged me to pursue my education as they recognised the value of academic knowledge and its significance for personal and work life opportunities.

I also dedicate this work to my brothers and sisters for their constant encouragement and support.

## Declaration

I certify that:

- a) except where due acknowledgement has been made, the work is that of the author alone;
- b) the work has not been submitted previously, in whole or in part, to qualify for any other academic award;
- c) the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program;
- d) any edited work, paid or unpaid, carried out by a third party is acknowledged; and
- e) ethics procedures and guidelines have been followed.

Signature: \_\_\_\_\_

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## **List of Abbreviations**

ANOVA	analysis of variance
BA	Bachelor of Arts
BSN	Bachelor of Science in Nursing
CTPQ	Clinical teaching preference questionnaire
CWB	Counterproductive work behavior
GCC	Gulf Cooperation Council
ICU	Intensive Care Unit
KMO	Kaiser–Meyer–Olkin
KSA	Kingdom of Saudi Arabia
PE	Person–Environment Fit Theory
RMIT	Royal Melbourne Institute of Technology
SINS	Stressors in Nursing Students Scale
UAE	United Arab Emirates
UK	United Kingdom
US	United States
VIF	Variance inflation factor
WHO	World Health Organization

## **Chapter One: Introduction**

This research recruited nurses from hospitals in the Ha'il province, a northern region of Saudi Arabia. The study sought to understand the factors influencing nurses' intention to leave their employment in the hospitals of Ha'il. The nurse study participants (N=297) were recruited from five hospitals and included Saudi nationals and expatriate nurses working under contract. There is only anecdotal evidence that nurses working in Saudi hospitals do not stay with their employers for any great length of time (Ministry of Health, 2013). Unfortunately, Saudi statistics are not consistent and thus it is difficult to generate comparisons between regions and identify trends. This is because different databases exist in the regions of the country and are not always collated centrally. This statistical anomaly does provide opportunity for this study to identify the current situation of staff intention to leave in one region of the country and has the potential to provide important information for future planning for the nursing workforce.

To address healthcare shortages and predicted population growth, the Ministry is undertaking a decade-long redevelopment of its healthcare resources, including building new hospital cities and significantly improving nurse professional standards through both the public and emerging private healthcare sectors. As a provincial centre at a distance from Riyadh and Jeddah, Ha'il has further issues in attracting and retaining expatriate nurses, and in overcoming Saudi scepticism of nursing as an acceptable profession for their daughters and sons (Al-Asmari, 2013). There is a need to consider recruitment and retention strategies differently for the regions compared to large cities.

Other factors that are affecting the health workforce currently exist in the Kingdom as the government is undertaking significant expansion of the healthcare sector through both the public and private healthcare sectors. The government is also implementing a policy of

Saudisation to replace skilled foreign workers with Saudis in a society that practises full gender segregation (Ramady, 2013). As a consequence of traditionalist female roles in Saudi society, the Saudi female labour force participation is among the lowest in the world. At the same time, the new education system is producing more women graduates than men (Al-Mahmoud, Mullen & Spurgeon, 2012; Royal Embassy of Saudi Arabia, 2013; World Factbook, 2013). Ha'il health services are in a regional location of the country and have unique problems in attracting nurses to work compared to large cities with infrastructure. Thus, conducting this study in a regional area of Saudi Arabia provides insight into the problems the regions are experiencing in recruitment and retention of nurses.

This is a period of great change in the Kingdom and the healthcare sector is undergoing much change as the government seeks to provide for the tens of thousands of school leavers and graduates who enter the labour market each year, many of whom lack the competencies such as English language and a customer service ethic that typify entry level jobs around the world (Ramady, 2013). Nursing is a service industry requiring skills and knowledge and novice nurses will find a profession that is complex with challenging ethical healthcare issues to resolve. The nurse must be a strong patient advocate and integral member of a multidisciplinary team and demonstrate professional attitudes and leadership. Making the transition from novice to nurse is not an easy journey and this affects longevity of the nursing workforce as it affects turnover intention.

Using an explorative descriptive survey design, this study identifies, categorises and analyses the factors that could be influential in explaining why both nationals and non-Saudi nurses leave their hospitals. The chapter presents the history of nursing, the problem statement, research questions to answer the statement and the contributions of this study to knowledge and Saudi society.

## **1.1 Nursing**

### **1.1.1 History.**

The earliest Arab record of nursing was on the battlefields of the Arabian Peninsula at the time of the Prophet Mohammed (seventh century CE). Rufaida bent Saad Al-Aslamiya accompanied the Prophet and organised women to care for the wounded, focusing on hygiene and the environment. She used specialised moving tents to care for the wounded, setting up medical practices for first aid, emergency care and long-term healing and caring for the disabled. This included training nurses, and after the wars, moving into healthcare, preventative care and promoting a healthy environment (Miller-Rosser, Chapman, & Francis, 2006).). By 1500CE, Arabs were constructing purpose-built hospitals with segregated male and female wards, using nurses who cared for patients of their own gender, and this practice continues generally today (Miller-Rosser, Chapman, and Francis, 2006). The Kingdom of Saudi Arabia's establishment of nursing is accredited to Lutfiyah al-Khateeb who developed nursing education in the 1940s and worked to make a nursing career acceptable for Saudi women. She was followed by Samira Islam, a pharmacology professor and an advocate of nursing. Both strived to develop an Islamic nursing environment for patients and healthcare staff (Miller-Rosser et al., 2006).

### **1.1.2 Nursing workforce.**

In Saudi Arabia, the nursing workforce is mostly hired from abroad or trained in overseas institutions (Aboul-Enein, 2002; Luna, 1998; Tumulty, 2008), which is why the nurses are not very well versed in Arabic. The recruiting process of nurses by the Saudi Arabian Ministry of Health mostly involves two countries: India and the Philippines (Tumulty, 2008). Countries like the United States (US), the United Kingdom (UK), South Africa, Australia and Malaysia (Aboul-Enein, 2002; Luna, 1998) as well as some Middle Eastern countries also provide nurses to Saudi Arabia. However, the interest of Saudi

nationals in nursing is increasing day by day. According to a rough estimate, the number of local nurses has increased to 22% in 2012, which was only 9% in the year. Despite this slow increase in local nurses, the number of students enrolled in nursing has shown growth, although it is reported that it will take 25 years for the local nurses to comprise 40% of the required nursing force in the country (Abu-Zinadah, 2006).

Part of the nursing shortage in Saudi Arabia is the high dependency on expatriate nurses (Al-Ahmadi, 2006). Many of expatriates use the Saudi healthcare facilities as a temporary location to obtain training and experience. Then, they move with marketable skills to developed countries such as the US, the UK, Canada and Australia (Alamri, Rasheed. & Alfawzan, 2006; Alhusaini, 2006). Therefore, this study will identify rates of expatriate turnover intention, which will be useful information for management nursing and workforce planning.

With a high proportion of expatriates, the Saudi nurse workforce is largely recruited, although specialist nurses are sourced all over the world (Al Mutair, Plummer, O'Brien & Clerehan, 2013; Saudi Gazette, 2013, 2 December). Due to the importance and cultural sensitivities of nursing as meeting the conservative needs of gender-segregated workplaces, the Ministries of Health and Labour accorded nursing a high priority in recruiting young Saudis including career options for secondary school students (Al-Sibai, 2013). Further, unemployment benefits were offered in 2011 under Saudisation/Nitaqat to encourage women to join the workforce, opening opportunities for a nursing career (Saudi Gazette, 2013, 27 October). Besides social status, other factors that influence careers in nursing for Saudis relate to socio-legal issues of commuting, balancing work and family responsibilities, career growth and working conditions (Aboshaiqah, 2013; Al-Ahmadi, 2013).

Expatriate turnover is a major concern for managers of healthcare facilities. Other factors that are blamed for the nursing shortage in Saudi Arabia include the poor image of



nursing, lack of awareness about nursing opportunities among high school students, the nature of nursing work that conflicts with the family and personal life (high work load, long working duties, night shifts and working over public holidays and weekends), low payment compared with other jobs, lack of professional growth and lack of support for working mothers (Abu-Zinadah, 2006; Al-Sa'd, 2007). To minimise the effect of nursing shortages, health and nursing long-term plans are needed to recruit more local nurses and to retain the current expatriate workforce.

### **1.1.3 Nursing Education.**

Under the auspices of the World Health Organisation, a male nurse's aide training institute was established in Riyadh in 1958, followed in 1961 by two female institutes, one in Jeddah. The women's institutes were denounced by traditionalists as they necessitated women leaving their homes. By 1992, the Ministry of Health had 17 female and 16 male nurse training institutes with certification based on secondary level schooling and three years at the institute. The Ministry continued to upgrade nurse certification to nurse gradates, and the College of Nursing at the King Saud University in Riyadh established the first Bachelor of Science in Nursing in 1976. With nurse certification ceasing in 2011, there are now fifteen nurse under graduate and graduates schools in the Kingdom. International PhD nurse qualifications are available from international universities (King Faisal Specialist Hospital & Research Centre, 2011).

The Saudi literature on nurse education and women's employment in the Kingdom prior to 2012 is unfortunately not valid, as it is based on government policies that no longer exist. For example, the Saudi nurse employment environment of Al-Mahmoud, Mullen, and Spurgeon (2012) referred to a 2003 survey; whilst Almalki, Fitzgerald, and Clark (2011) and Al-Turki et al. (2010) reviewed contemporary health care structures that changed to address issues raised by the findings. Thus citations in this study are as recent as possible, and

findings based on the country's changed labour conditions set aside. A literature search produced little available material on male Saudi nurses, as Ramady (2013) observed, although they are equally important in the Saudi healthcare context.

## **1.2 Research Problem**

The research problem relates to nurses' intention to leave their employer in Ministry of Health hospitals in the Ha'il province of KSA. Saudi men prefer to work close to their families, given the constraints on women's mobility and actions. A Saudi women's first priority must be their homes and families. Thus, they may have shortened careers and leave the workforce (Aboshaiqah, 2013; Al-Ahmadi, 2013; Central Department of Statistics and Information, 2013a). Non-national nurses, predominantly southern and eastern Asian women, have the responsibility of financially supporting their families in their home countries and work on contracts with their healthcare employers who are bound by Saudisation to continually increase the percentage of Saudis working in the nursing workforce (King, 2013). This may be an added destabilising factor that could affect turnover intention of non-national nurses.

Other factors exist that may affect a nurse's turnover intention such as the individual's perception of the healthcare workplace, its conditions, team relationships, work and family strains and the stress of continually working in a highly stressful workplace with very ill patients. Female nurses also work with the added responsibility of supporting a demanding family. To address these issues, a survey of the literature revealed a number of theoretical models that applied to the conditions that participant nurses are confronted with. These models have been useful to guide the study and valid and reliable instruments arising from these models were identified for use in this study. Selected models and instruments concern job stress (French, Lenton, Walters, & Eyles, 2000; Williams, 2003; Abualrub, 2004), burnout (Maslach, Jackson, & Leiter, 1996), job satisfaction (Price & Mueller, 1981) and

intention to leave (Kim, Price, Mueller, & Watson, 1996) have been used for the survey instruments in this study. Using intention to leave as the dependent variable, the problem is therefore expressed as the implications of job stress, burnout and job satisfaction levels on nurses' intention to leave their employer (the Ministry of Health) in Ha'il province.

### **1.3 Aims of the Study**

This study has the following aims:

- Identify the nurses' job satisfaction
- Measure nursing turnover intention
- Identify factors contributing to nurse retention or loss
- Suggest changes in hospitals to improve the retention rate of nurses in the Hail region.

### **1.4 Research Questions**

1. How do nurses' demographic characteristics and work profile characteristics affect factors such as job stress, burnout job satisfaction, and intention to leave?
2. What are the links between job stress, burnout and job satisfaction for nurses?
3. Could the variables of burnout, job satisfaction and job stress increase nurses' intention to leave?

### **1.5 Contribution to Knowledge and Statement of Significance**

This research explores an issue of prime importance and provides empirical research on the causes of turnover in the Saudi health sector in Ha'il region. This study therefore aimed to identify the factors that affect the turnover rates of nurses, providing suggestions to improve the situation and help to retain nurses. As a result of the findings of this study, the Saudi society and particularly the health sector will gain advantage. In addition to this, foreign nurses experience many difficulties when they come to work in Saudi Arabia.

Therefore, it is imperative to ensure that the hospital environment is welcoming to decrease the feeling of being alienation and provide an environment that is conducive for their work.

Finally, the significance of this research to the decision makers in the Ministry of Health is that it uses a rigorous process to identify and explain the social, economic and individual factors that influence nurses' intention to leave their employer in the hospitals of Ha'il. The aim is to gain insight and understanding from the results to draw conclusions on the factors that may impede nurse retention and make recommendations to the Minister of Health in this regard. In turn, such insight into employee behaviour may influence the Ministry of Labour in its healthcare objectives for Nitaqat objectives.

### **1.6 Definition of Terms**

**Burnout:** 'The dislocation between what people are and what they have to do, representing an erosion in values, dignity, spirit, will, and the erosion of the human soul' (Maslach, Jackson & Leiter, 1996, p. 17). Operational use: Maslach and Jackson's 1984 Maslach's Burnout Scale.

**Job stress:** 'The extent to which employees feel a tension or anxiety caused by their jobs' (Gill, Flaschner & Shachar, 2006, p. 472). Operational use: French et al. (2000) Nursing Stress Scale.

**Job satisfaction:** 'The pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences' (Locke, 1976, p. 1300). Operational use: job satisfaction subscale of Price and Mueller's (1981) professional turnover questionnaire.

**Intention to leave:** 'The degree of individual movement across the membership boundary of a social system' (Price, 1977, p. 4). Operational use: subscale of intention to leave or intention to stay items from Kim, Price, Mueller and Watson's (1996) career intent scale.

**Saudisation:** Replacing imported skilled labour with equally skilled and productive young Saudis in the private sector (Ramady, 2013).

**Nitaqat:** Introduced in 2011, this refers to a firm's attainment of increasing Saudi percentages, so that given size, location and industry, firms are classified red, yellow, green and platinum based on successful recruitment of Saudis.

**Hajj:** An Islamic pilgrimage to Mecca and the largest gathering of Muslim people in the world every year.

## **1.7 Organisation of the Thesis**

The thesis is presented in eight chapters. This introductory chapter have outlined the context of the study, the responsibilities of the Ministry of Health and the resources provided by the successive five-year development plans. This is followed by the government's decisions on privatisation of the healthcare industry, which in part is to provide jobs for qualified young Saudis entering the job market each year. The low status of nursing as a career was introduced. In this chapter, the main components of the thesis were presented: the research problem, research questions, the contribution to knowledge and statement of significance.

The next chapter explains the context of the study in the Ha'il province of Saudi Arabia. It briefly sets out information on the geography, population and labour force as well as the Saudi economy. Next is an explanation of the Saudisation attempts by the government, followed by the current compliance policy, Nitaqat. The Saudi healthcare environment is explained, as well as the Ministry of Health and its policies regarding national and foreign nurses, including their education and training. The chapter concludes with the working environment in Saudi hospitals.

Chapter Three, the literature review, begins with the search process and then moves to a comprehensive review of the four primary constructs that arise from the literature as models

and theories: job stress, burnout, job satisfaction and intention to leave. These matters are also considered in the context of Middle Eastern literature, and where available, the Saudi literature. The literature guides the study and reveals a clear gap in knowledge to support the conduct of this current study.

The next chapter explains the conceptual framework of the study, which contains a summary of the theoretical and empirical literature on the topics. It briefly sets out the information to first understand the extent of each theory, that is, job stress, burnout, job satisfaction and intention to leave, and the second was to select measures (instruments) and analysis methods appropriate to the research questions.

The methodology chapter presents the research design, explaining paradigms, quantitative approaches and those selected for this research. The measures used for the research instrument, a self-administered questionnaire, are followed by the sampling technique, instrument reliability and validity as well as data collection and analysis techniques. Ethical considerations, data collection and analysis selections conclude the chapter.

The results chapter contains profiles of the respondents, demographics as well as work profiles and a descriptive analysis of the results from the four instruments used in this study to assess levels of job stress, burnout, job satisfaction and intention to leave. These descriptive statistics were sought to answer the first research question. This is followed by details of an exploratory factor analysis, reliability testing, regression analysis and testing. The chapter concludes with the relationships between the dependent variables and their effects on the independent variable, intention to leave to answer the second and third research questions.

The discussion chapter follows the results chapter and the key results are discussed in relation to the contemporary literature previously found utilising a focused literature search strategy. Characteristics of Ha'il nurses are compared to the Saudi norms, which also provide benchmarks for comparisons with demographic results such as nurses' nationalities, experience and qualifications. A comparative analysis aimed to explain any differences between Ha'il nurses and the Saudi norms. The discussion continues to address each of the research questions and positions these results within the literature by making comparison with similar studies. Conclusions and recommendations are presented in the final chapter, together with statements concerning the strengths and limitations of the research methods used.

## **Chapter Two: Context of Study: Saudi Arabia**

This research concerns the intentions of nurses in Ha'il province in the north of Saudi Arabia. Ha'il is emerging as an important centre in the future of the nation, due to its location as a 'land port' from the Mediterranean. The capital of Ha'il, Ha'il city, is the site of a future Economic City, one of five around the Kingdom that will provide accommodation and work for the young population. Healthcare is both a necessary service to the population and a source of employment, as the government determines that skilled Saudis will replace foreign labour (a process known as Nitaqat).

This chapter presents a brief overview of geography, climate and demographics of the country as represented in the Ha'il province, its economy, and the evolution of the Saudi government health structures through the successive five-year economic plans and the process of privatisation. This is followed by a discussion of nurses in Saudi Arabia, both as a profession for nationals and a source of income and professional development for expatriates, largely attracted from southern Asia. There is a discussion on the effects of education on the emerging young Saudi workforce and their responses to the working conditions in Saudi hospitals. The Islamic social characteristics of the Saudi population are highly influential to Ha'il's economy, as women, as the traditional care-givers, are largely absent from the workforce. Thus, the chapter includes an explanation of the national and expatriate labour market in the country, and the effects of Nitaqat.

### **2.1 Characteristics of Saudi Arabia and Ha'il**

Saudi Arabia is an Arabic country, covering an area of 2.24 million km<sup>2</sup> of the Arabian Peninsula. Its capital city is Riyadh and principal cities include Dammam, Makkah and Jeddah. This section explains the features of the country, its geography and society.



### 2.1.1 Geography.

The topography of the country is predominantly desert with an arid climate evidenced by the extremely high summer temperatures, together with humidity along the coast. One of 13 provinces, Ha'il is situated to the north of the country. This province has four towns, Al Shinan, Al Ghazala, Baqaa and Ha'il, the capital city of the province (Royal Embassy of Saudi Arabia, 2013).



Source: Royal Embassy of Saudi Arabia, 2013  
Figure 2.1: Map of Saudi provinces

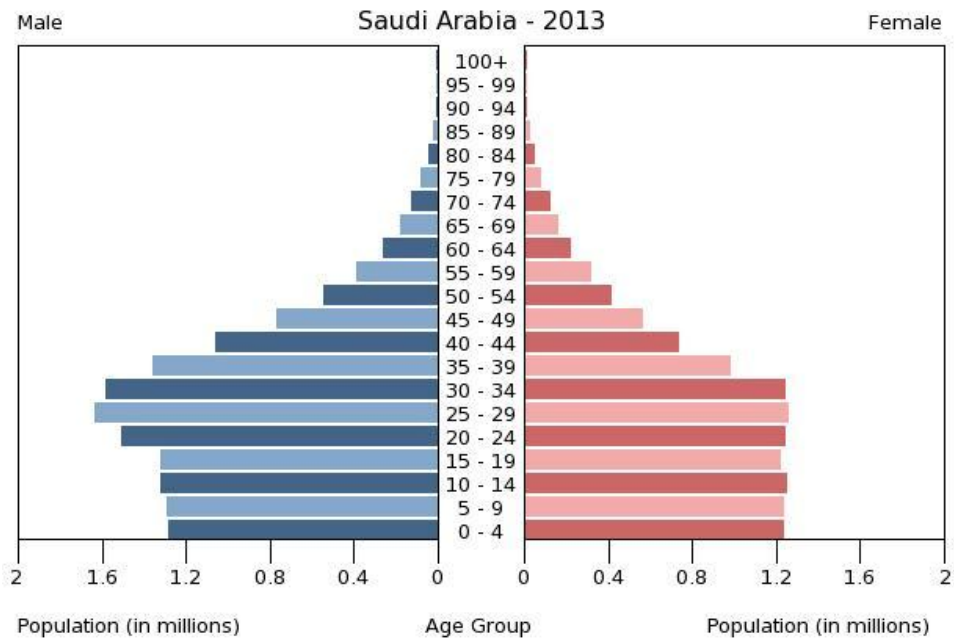
As shown in Figure 2.1, Ha'il is located 700 km northwest of Riyadh, the capital of Saudi Arabia. It is isolated, with its nearest neighbouring cities of Sakakah and Buraydah, the capitals of the nearby provinces of Jouf and Qassim respectively, located 250 to 300 km distant. Ha'il city lies at an elevation of about 1,000 metres between the peaks of Aja and Salma at the northern end of the Nejd plateau of the Arabian Peninsula and the edge of the sparsely populated An-Nafud Desert which covers the northern third of Ha'il Province. Although Ha'il city experiences a typical arid desert climate with hot summer conditions of up to 45°C, its altitude permits a milder climate than other places on the peninsula and during winter months, Ha'il experiences average maximum temperatures below 20°C. Humidity is

very low, with an average rainfall of less than 125 mm per year falling in March, with occasional flash floods. Ha'il was a historical way station to Makkah, and historical relics still remain in the city environs (Prince Abdulaziz bin Mousaed Economic City, 2009).

### **2.1.2 Population and labour force.**

The World Factbook (2013) reported that the country has a population of 27 million, including an estimated 5.5 million expatriates, a population growth rate of 1.51% and a median age of 26 years. Statistics are relatively unreliable on the Arabian Peninsula, due to the individual local authorities using their own bases rather than a common base set by one central agency. The predominance of expatriate workers and their rapid turnover and illegal immigrants as well as itinerant Arabs who traditionally move around the countries of the peninsula complicate tracking the workforce and population. While oases settlements are monitored for their health and educational needs, the desert borders of the country, particularly border with Oman and Yemen, are relatively open. This situation also relates to Ha'il, although the province does not share an international border. Chatty (2013) describes the migration of the *bedu* (Bedouin) in relation to nomadic lifestyles.

The Central Bureau of Information and Statistics (2013b) reported that in 2012, the Kingdom's population was 29,195,895, of which the Saudi national population was 19,838,448 (see Figure 2.2).



Source: World Factbook, 2013b

Figure 2.2: Saudi population pyramid

The Saudi population pyramid in the above figure shows the effects of the expatriate population, particularly men aged 20 to 40 years who are predominantly working on construction sites, and some effect from women aged up to 34 years who as Saudis, are generally employed as teachers and nurses. Foreign workers fulfil both occupations and also work in shops and as domestic help (Forstenlechner & Rutledge, 2011).

For labour market purposes, the population aged over 15 years in the first quarter of 2013 was determined at 20,740,617 of which Saudis comprised 13,038,299. In the Ha'il province, Table 2.1 illustrates the labour force imbalance for Saudi women for the first quarter, 2013 (Central Department of Census and Statistics, 2013a).

Table 2.1

*Characteristics of labour force 2013, Ha'il province*

Nationality	Men	Women	Total
All population aged >15 years (no.)	254,000	202,718	456,178
Not in the labour force (no.)	50,020	160,548	210,568
In labour force (no.)	203,980	42,170	246,150
Saudi population (no.)	172,847	173,171	346,018
Saudis not in labour force (no.)	47,675	147,632	195,307
Saudis in labour force (no.)	125,172	25,539	150,711
Saudis in labour force as percentage of Ha'il labour force	61.3%	60.5%	61.2%
Saudi participation rate	72.4%	14.7%	43.6%

Source: Central Department of Census and Statistics, 2013a

While Table 2.1 shows that Saudis represent more than 60% of Ha'il's employed population, there is a low participation rate: 72.4% for men and a mere one of every seven (14.7%) women. The average participation rate for Saudi Arabia is 64.2% for men and 16.1% for women.

There is no other global region so directly and continually reliant upon such high ratios of non-national labour. Forstenlechner and Rutledge (2011) stated that although the large expatriate population was for the most part mutually beneficial for the GCC countries,<sup>1</sup> it is giving rise to concern. The researchers offered the following labour force expatriate percentages for the GCC at 2011:

Kuwait: 83.1%

Saudi Arabia: 49.5%

Bahrain: 63.9%

Qatar: 94.3%

<sup>1</sup> Gulf Cooperation Council countries: Kuwait, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman

United Arab Emirates: 95.8%

Oman: 71.3%.

Forstenlechner and Rutledge suggested that the size of the expatriate workforce for the Gulf countries arguably superseded all other concerns for both governments and citizens. It was this factor that began research interest in the expatriate workforce amid government concerns on the effects on their societies, especially Saudi Arabia, where its expatriate numbers surpassed the other Gulf foreign workforces. Thus, there is the absolute need to provide healthcare for the Ha'il population while at the same time replacing expatriates with trained Saudis.

## **2.2 Economy**

This section briefly describes the rise of the Saudi economy and its achievements in regards to large-scale developments. The issue now is to find jobs for its youth, and this section explains the environment for Saudisation.

Saudi Arabia is a rich country, however its wealth is historically recent, with its expenditures only recently achieving the socio-economic results of the world's developed economies. The source of the wealth is of course oil, which was discovered by an American consortium in 1938 and shipped to Bahrain for processing, until the advent of World War II, when the structure of the future Arabian American Oil Company (Aramco) emerged in 1944. Production commenced in earnest in the post-war years and markets emerged for the 500,000 barrels per day produced in 1949. In 1950, the Saudi government authorised an increase in the government's share to 50% of Aramco's profits and these profits began to flow as Aramco expanded in the 1950s to 1.2 million barrels per day by 1959. As more proven recoverable reserves were located during the period, these crude oil productivity figures further increased. Saudi Arabia's fortunes were bound to the price and therefore the production of oil. World oil discoveries reduced market prices during the 1960s, although

prices rebounded in the early 1970s. Price spikes and troughs remained characteristic of the oil and gas markets. Saudi Arabia effectively bought out private equity in Aramco in 1976 (International Directory of Company Histories, 2007).

Saudi Arabia initially spent its oil income on economic and social infrastructure, literally paving the way for a high birth rate and expanding accommodation, health and education needs of the young population. To address these needs within the fluctuating income from oil production, a series of five-year socio-economic plans commenced in 1970. These ongoing plans promote development in areas such as agriculture, commerce, industry, transportation, communication, education and healthcare. The first four development plans (1970–1989) in line with building infrastructure concentrated on health facilities throughout the country, such as hospitals, clinics, laboratories and research facilities (Royal Embassy of Saudi Arabia, 2013).

The objectives of the early 1970–89 development strategy were to bring about long-term and sustainable development to ensure that continued economic growth was not fully dependent on a high oil price. Indeed, the oil price remained relatively low and unstable from the mid-1980s through to 2002 and the Kingdom remained fairly well on track for its socio-economic targets, with communications, educational institutions and health facilities expanding several times under each of the development plans as the public services grew quickly to administer the new functions (Niblock, 2008). Niblock noted that opening up the country to global competition would make it more difficult for Saudi businesses, including joint health ventures that the government was promoting to reduce the burden of its public health sector. Using costly Saudi labour instead of the cost-effective skilled labour from the Philippines and elsewhere would make it difficult for Saudi health businesses to compete with companies based outside of the country.

The current (ninth) five-year plan allocated \$US385 billion (SAR1.4 trillion) to projects across all sectors from 2009 through to 2014. The latest plan focused on standards of living and employment prospects for youth (now Nitaqat), increased economic development in the provinces, such as Ha'il's inland port plans. Social and healthcare development received 19% of the budget; economic resource development were allocated 15.7%; transport and communications 7.7%, important in remote areas; and municipal and accommodation also 7% (United States-Saudi Business Council, 2013). The budgets each year conform to the development plans. The latest plan, the ninth (2010–2014), continued the expenditure emphasis on social objectives, as shown in Table 2.2. Note that the figures are assumed to be actual, as there is no mention of adjustment for inflation (see following discussion) (Ministry of Economy and Planning, 2012).

Table 2.2  
*Growth in Saudi social allocation funding*

Development sector	7th plan 2000–2004 SARb	8th plan 2005–2009 SARb	9th plan 2010–2014 SARb
Human resources development	276.9	480.0	731.5
Social and health development	92.6	155.9	273.9
Economic resources development	54.4	105.8	227.6
Infrastructure development	61.4	122.2	211.6
<b>Total allocation</b>	<b>485.3</b>	<b>863.9</b>	<b>1444.6</b>

(Saudi Arabian riyal=A\$0.29 December 2013)

Source: Ministry of Economy and Planning (2012, p. 137)

Thus, the government continues to dedicate substantial funds to the education and health sectors that are expected to support nurses' professional development. However, the

nature of the expatriate skills is that there is a continual supply of strangers who take months to learn their working environment, contribute and then leave, usually between one and three years. This does not allow time for workplace relationships to flourish, particularly in a non-Arabic language environment.

### **2.3 Saudisation and Nitaqat**

The Saudi education infrastructure, while historically present as mosque schools, *madrassat*, was only developed for the general population from the 1970s to the 1980s. Tertiary education, although free, was only made available in the last decade to those wishing to further their education (Ramady, 2010). Those men who graduated from post-secondary schools until the turn of the century expected immediate offers of jobs in the public service and allied quasi-government businesses, such as Saudi Telecom. However, it was always the intention of the government, advised by international organisations such as the United Nations, to build stable infrastructure organisations and then privatise them (Al-Rasheed, 2013). Thus, responsibility for providing jobs would pass from the public sector to commercial enterprises, improving productivity and placing the country on the path to economic security if the oil price or supplies failed. Saudisation is therefore an ongoing priority for the future survival of the government; hence, the occasional recruitment drives for the public sector, which continues to grow. This section explains the outcomes for Saudisation to this date.

Saudisation has long been an aim of the government, stemming from rapid growth of institutions and government organisations last century, and the lag caused from educational outcomes that were designed to produce the skills and knowledge the country needed (Ramady, 2010). Saudisation in essence refers to the replacement of the expatriate professions and occupations with Saudi employees, although this is not universal for all jobs in the country. Given the social and religious position of Saudi women as family carers, types



of paid work available to them were curtailed to gender-segregated occupations such as education and health. While this study concerns Ministry of Health employees, the government seeks privatisation of the sector, as it has successfully privatised other government businesses. Further, the private sector now provides over one-third of hospital beds so that accredited Saudi nurses have the choice between private and public job opportunities.

Saudisation policy, with its employer self-assessment, proved unable to generate sufficient jobs to employ the tens of thousands of Saudi new job seekers arriving on the labour market each year. Ramady (2013) encapsulated the reluctance of Saudi employers to hire nationals in a table, reproduced at Table 2.3.

Table 2.3

*Private sector Saudisation issues*

Issues	Private sector justifications
Labour cost	The relatively high cost of Saudi labour results in private sector reliance on imported cheap manual labour used in labour-intensive occupations. This helps the private sector profitability despite government attempts to increase expatriate costs (residency [ <i>iqama</i> ], visa renewals, etc.)
Social and cultural perceptions	Saudis are reluctant to take up and seriously pursue certain types of jobs, despite Saudisation directives. For example, the forced Saudisation of employees in the vegetable markets failed. Social status is important for young Saudis as it affects marriage and other social relations
Control over process of production	Expatriate workers are easier to control and more disciplined than Saudis. Control is exercised through short-term employment contracts. In the past, there were few legal obligations towards expatriates, who were prohibited from changing jobs without their sponsor's permission. These aspects linger among employers
Lack of social integration in multi-cultural work environment	Local populations are reluctant to integrate into multi-cultural work environments, fearing that it might degrade their existing status.
Job tenure	It is more difficult to fire Saudi workers than foreign workers
Inadequate qualifications	Saudi employees may have inadequate qualifications, a lack of good English or a non-technical background.
Mobility	Saudi workers are less mobile than foreigner workers; especially women who are reluctant to change job locations and lengthen their commutes. It is difficult for women to commute to work as they are unable to drive.

Source: Ramady (2013, p. 486)

There are three agencies fundamental to Saudi employment in the private sector: the Ministry of Labour (administrator), the Human Resources Development Fund (funding and compliance) and the Technical and Vocational Training Corporation (training). The arrangement is completed with the assistance of the Chamber of Industry and Commerce which organises demand and supply to the private sector (Human Resources Development Fund, n.d.). Technically, this includes hospitals, clinics and other organisations that require

nurses, such as large engineering and project firms. Saudi Aramco (2013), for example, employs 4,000 medical professionals and has a 331-bed hospital at Damman.

In 2011, the King effectively mandated the existing Saudisation regulations, removing escape clauses for employers such as the claim of inadequate training of Saudi applicants; opening more jobs to women and improving vocational training access. The new policy, Nitaqat, classified all private sector firms (including healthcare) into red, yellow, green and excellent (platinum), corresponding to existing and planned Saudisation rates, which advance each year (Ramady, 2013). To give some scale to Nitaqat, the Labour Ministry announced that 3.5 million foreign workers had 'corrected their status', that is, illegal workers gained emergency employment visas, between May and July, 2013. One-quarter to a third of these were Indian (Khaleej Times, 2013).

Again in 2011, the Saudi government announced new unemployment benefits (Hafiz) with the aim of bringing unregistered Saudis into the labour market (increasing labour participation). Further, the public sector minimum wage level was raised to SAR3,000 (AU\$870) per month and the private sector was to follow suit by March 2012. The notion of equalisation of the minimum wage level was to prevent Saudi employees from resigning and registering for Hafiz unemployment at SAR 2,000 per month. Further, the introduction of the private sector minimum wage was intended to discourage Saudi turnover in the private sector. The response to Hafiz was that two million people signed up although 700,000 citizens, predominantly women, actually qualified. While the unemployment benefit was for 2012, there was speculation that it would be difficult to remove (Ramady, 2013). This proved correct, as in September 2013, CNN reported that there were an estimated 1.8 million Saudis, generally women, on Hafiz payments who were unable to find work due to inadequate or misplaced education and an inability to access retraining (Khaleej Times, 2013).

Public sector productivity may be adversely affected from the rise in minimum wage, and it was also subject to large-scale recruitment during the 2010 and 2011 economic stimulus programs (Ramady, 2013). Ramady continued, stating that in 2009, productivity fell almost 5% in the year from 2008, almost all due to a previous large intake of public sector recruits. Hiring Saudis also increases risk with the private sector's productivity performance, as Saudi Arabia does not enjoy high productivity rates in the non-oil private sector. Ramady speculated that employers would resort to previous Saudisation avoidance techniques by hiring the minimum Saudi labour ratio to remain at the 'green' or 'yellow' Nitaqat levels, while continuing to rely on unregulated and illegal foreign workers to keep costs down (Ramady, 2013).

Thus, Nitaqat achieved the effect the government sought: it moved illegal labour from the country and forced Saudi employers to (attempt to) hire Saudi employees. As Ramady (2013) noted, it remains to be seen whether the Nitaqat embargoes will fade over time as the employers reassign their workloads. They may also take avoidance measures, such as sending non-site work offshore. Unfortunately, this service sector is the work that the government wants for Saudis, as the government acknowledges that Saudis do not like menial work and seek a public service job (Saudi Gazette, 2013b, 24 November). The recent Saudi Gazette article also noted that private employers were asking the Ministry of Labour to allow transfer of employer-specific foreign labour work permits between firms to overcome labour shortages that were jeopardising their projects. This would also assist the Ha'il health sector, as it finds difficulty sourcing largely female foreign nurses (Helen Zeigler & Associates, 2013).

## **2.4 Saudi Health Environment**

Founded in 1932, the Kingdom's health system was effectively developed after the Second World War as funds began to flow from oil. This section describes the manner by which the health system evolved, and its current capabilities, issues and success.

### **2.4.1 Evolution of medical care.**

Until the 1980s, it was difficult to meet the country's healthcare needs on the Arabian Peninsula due to lack of facilities and trained professionals. The *hajj* (Islamic annual pilgrimage) also contributed to health problems, given that many pilgrims originated from tropical areas with endemic diseases. The nature of the hajj, with many people circulating in a close environment, contributed to the spread of disease. The hajj was instrumental in the early development of the Ministry of Health in 1915, followed in 1925 by the Public Health Department, which built hospitals and health centres across the Kingdom and set regulations to standardise the practise of medicine and pharmacology (Ministry of Health, 2013). Once health checks for pilgrims and medical facilities were established, the threats to the Saudi population from introduced diseases such as malaria and smallpox were reduced, the infant mortality rate declined rapidly and life expectancy rose (Almalki et al., 2011).

Technology was continually updated and health standards updated to reach and maintain world standards. Further, gender segregation with its duplicated services promised far more Saudi jobs in the many professions and occupations involved in healthcare. In 1970, there were 74 Saudi hospitals with 9,039 beds, and 40 years later, 2011, there were 420 hospitals with 58,696 beds (Ministry of Health, 2013). Through its current strategic plan (2010–2014), the Ministry of Health seeks to upgrade its technology and service provision to a patient-centred healthcare system. This system incorporates primary healthcare to specialised therapeutic services at a high level of care, while preserving all patients' rights,

such as the right to know about their condition, the right to know the different treatment options, the right to choose their physician, and the right to be always treated with care and respect (Ministry of Health, 2013). These aspirations are fulfilled through the Integrated and Comprehensive National Healthcare Project (Ministry of Health, 2013).

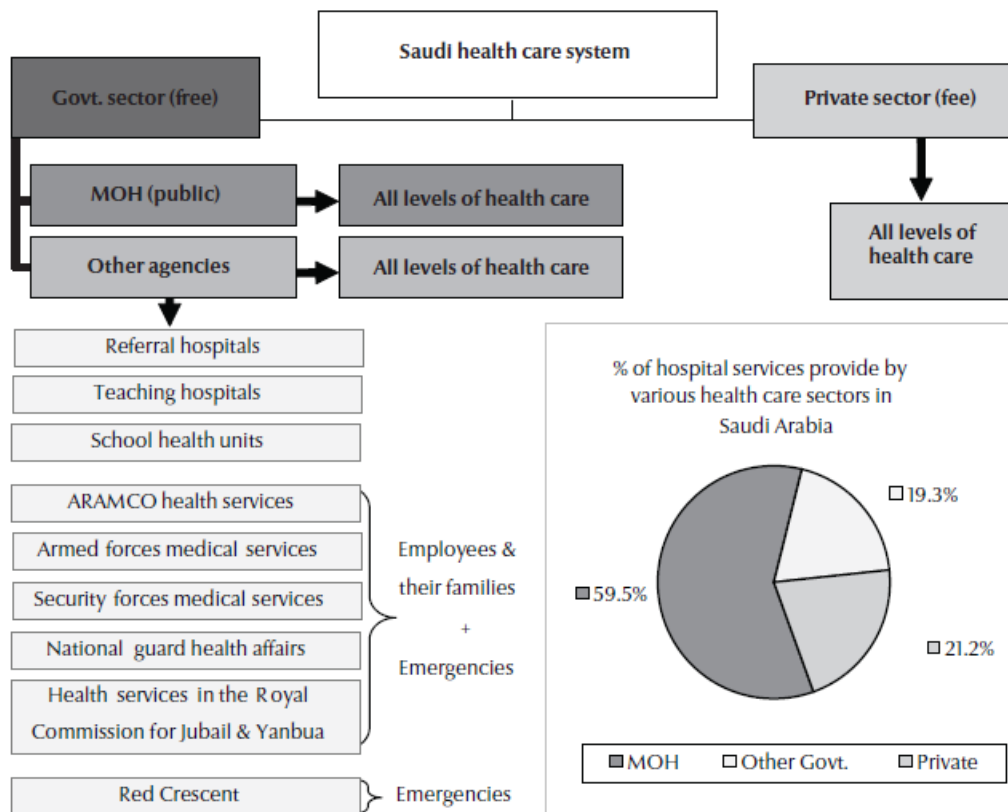
Other aspects of the Ministry's strategy include co-operative health insurance, which is extending the private sector's involvement in paying health insurance for their expatriate and national workforce to new sources of healthcare revenue. This includes privatisation of Ministry facilities to provide improved management and operational practices (Ministry of Health, 2013). Landry and Taylor (2012) confirmed the Ministry's focus over the last decade on primary healthcare (health services, environment and lifestyle) and also on privatising the health system by transferring hospitals and their administration. According to Landry and Taylor, the government is adopting a US-type health financing system, just when the Americans are introducing legislation to fix the issues in their own healthcare system (known in US as Obamacare). Khaliq (2012) explained that foreign workers use private sector facilities through health insurance, and that the entire system is being privatised so that the population will be insured and the system will be privatised. The Ministry of Health may retain primary health facilities, although there is significant risk in expecting the profit-oriented private sector to assume healthcare responsibility at a national level. Alkhamis, Hassan and Cosgrove (2013) concur, stating that the Compulsory Employment-based Healthcare System was being implemented on an underdeveloped healthcare system, with healthcare indicators falling below those of upper-middle-income countries.

#### **2.4.2 Ministry of Health.**

The Ministry of Health's vision is to improve the availability and quality of care for the Saudi population: 'A safe, quality health system, based on patient centric care guided by standards, enabled by eHealth' (Ministry of Health, 2013). Its mission is to care for patients,

to manage healthcare providers and it has developed a business strategy and five-year plan to accommodate these aspirations. An internet presence in collaboration with global provider IBM is at the core of the Ministry's administration policy.

The healthcare system for which the Ministry has responsibility is shown below in Figure 2.3.



Source: Almalki, Fitzgerald and Clark (2011, p. 786)

Figure 2.3: Saudi healthcare system at 2011

Figure 2.3 shows the connection between the Ministry of Health and the private sector; however, it is not clear in the figure that the Ministry regulates monitors and administers the private sector and that medical units in the various Chambers of Commerce and Industry are the interface between the public and private healthcare sectors. The Riyadh

Chamber of Commerce and Industry stated that at the time, 51% of the Kingdom's healthcare workforce were foreign nationals (Saudi Gazette, 2013c, 27 October).

In 2013, the Ministry comprises 20 directorates that are situated in every province, and its hospitals and health centres. The Ministry is part of a health network, comprising among others of the Saudi Commission for Health Specialties, the accreditation agency for expatriates and the provider of standards for Saudi healthcare curricula. Another agency, the Saudi Food and Drug Authority, authorises the use of new drugs and procedures and the Council of Health Services is a private–public committee with powers of resourcing the Kingdom's programs in keeping with WHO standards (Ministry of Health, 2013). There is also the Council for Cooperative Health Insurance (2013), whose mission is to:

Introduce qualified health insurance companies and accredited health care (insurance) facilities in both the private and public sector(s), and ... to provide better and more comprehensive services to the beneficiaries of the Act, and to form a binding relationship with society on the basis of strategic ... partnership(s). (p. 1)

The Council's website does not provide further information or statistics on its achievements.

The Minister of Health is advised by two vice-Ministers, Health Affairs, and Planning and Development and four deputy Ministers: Public Health, Medical Supply and Engineering Affairs, Planning and Health Economics, and Health for Curative Services. Under this structure, are nine assistant deputies who provide services within the structure. There are a large number of agencies under this structure (Ministry of Health, 2013).



General directorate of nursing	International affairs
Control and internal auditing	General directorate of medical research
General directorate of non-communicable	Employee rights
Security and safety	General directorate of information and statistics
National health laboratory	
General directorate of pharmaceutical care	Information and communication technology
General manager of administrative and financial affairs	International relations General department for mental and social health
Department of medical rehabilitation	Health services for hajj and umrah
General directorate of medical licenses and pharmaceutical affairs	Department of public services
	Medical supply
Contracts and procurement	Personnel affairs
Hospitals	Administrative communication centre
Health centres	Self-employment programs
Maintenance	Administrative development
Projects	Private health institutions follow-up
Poison centres and forensic chemistry	Radiology and application services
Specialised centres and visiting physicians	Health investment and industry
Laboratories and blood banks	Health economics studies
Own resources	Medical commission and health attaché
Manpower planning	Health centres and programs
Hereditary and chronic diseases control	Communicable diseases control
Environmental and occupational health	Medical cities and specialist hospitals board
Legal affairs	

The agencies in the health portfolio reflects the Kingdom's practice of adding functions as necessary, while retaining prior structures that do not change to reflect those functions (Common, 2013).

### **2.4.3 Healthcare resources.**

As noted, up-to-date Saudi statistics are not readily available on the Peninsula. Neither the Ministry of Health (2011) nor the Central Department of Statistics and Information (complete statistics, 2008) had current statistics as of September, 2013. The majority of the information is announced through news media, with minimum details (Al-

Kelya & Al-Saggabi, 2013). For example, an undersecretary of the Minister of Health announced that the Ministry hired 2,087 consultant physicians with 723 sourced locally. Dr Al-Ghamadi noted:

The rest of the specialists we brought to the kingdom from Australia, the UK Egypt, Jordan, Pakistan, Sweden and the USA, and will focus on areas including kidney transplants, bone surgery, neurosurgery, heart surgery, infectious diseases in children and newborns, diabetes, radiology and more (King, 2013,p.34).

A recruitment company, Helen Zeigler and Associates (2013), provided information concerning the Saudi health system for applicants. The firm explained that the Saudi system has two tiers: a network of primary healthcare centres and clinics for emergency and basic services supporting mobile clinics for remote areas; and the second tier of urban hospitals and specialised facilities. At that time, there were 16 government and five private medical education and training establishments, 12 government and seven private facilities for teaching dentistry and for pharmacy, there were 15 government and six private institutions. Of the hospitals, 62% were operated by the Ministry and 53% by other primary health facilities. The remaining institutions were operated by private industry and other agencies, such as the Ministry of Defence and the National Guard (Helen Zeigler & Associates, 2013). A consultancy firm, Colliers International (2012), provided an overview report of the status of healthcare in the Kingdom and noted that the healthcare sector was, and remains, affected by insurance company controls on quality provision. Colliers called for healthcare price capping by the Ministry of Health, together with guaranteed access to healthcare and the quality of healthcare outside the major city centres of Riyadh, Dammam, Jeddah, Makkah and Khobar. This quality issue, according to Colliers, was evident in the suburbs of these cities.

High population growth may have subsided as Nitaqat compliance results in the departure of illegal migrant labour; however, Colliers (2012) called for new hospitals and

more beds in existing hospitals. In their analysis, Colliers estimated that there were two hospital beds per thousand population (comparable to the Ministry of Health's estimates below), short of the Gulf countries' average and well short of comparable higher income countries of eight to 12 beds per thousand population. Further, in 2009, nurse number average per bed (<2) were the lowest in the Kingdom of Colliers' comparable countries (2–3). Specialist care was not available throughout the Kingdom at the time of Colliers' report, a matter of concern for outlying cities such as Ha'il.

In its healthcare report for the Kingdom, Colliers (2012) aligned the effect of the insurers' cost controls on the private hospitals' spending on qualified medical staff. The report stated that both nationals and foreign healthcare professionals left the Kingdom in search of better opportunities and training facilities abroad and the effect of Nitaqat on staff costs due to the Kingdom's limited available resources. While public sector hospitals were not cost-driven, they could at the time provide quality healthcare services either free or at subsidised rates. However, given the low rate of hospital beds in the population, access was, and remains, a major issue in public sector hospitals. Colliers noted the youthful demographic of the population, but given the rise of non-communicable diseases associated with rising standards of living, there was an increase in demand for private healthcare facilities.

The Ministry of Health (2013) provided the following information concerning Saudi medical resources.

Table 2.4  
*Saudi healthcare resources 2011*

Health resources	Indicators*
Physicians	24.4
Total 69,266: Saudisation 22.4%	
Ministry hospitals 33,999 <sup>^</sup> : Saudisation 23%	
Dentists	3.5
Pharmacists	5.1
Nurses	47.4
Total 134,632: Saudis 33.6%	
Ministry 77,946 <sup>**</sup> : Saudis 51.9%	
Allied health workers	27.8
Total 78,823: Saudis 69.1%	
Ministry 45,139: Saudis 87%	
Healthcare centres	0.74
Hospital beds	20.7
Total 420 hospitals: 58,696 beds	
Ministry 251 hospitals: 34,450 <sup>#</sup> beds	
Public hospital bed rate (per 10,000 residents)	16
Private hospital beds rate (per 10,000 residents)	4.7

\*Per 10,000 population

\*\* 2012 nurse total was 82,948

<sup>^</sup> 2012 doctor total was 38,825

<sup>#</sup> 2013 bed total was 37,921

Source Ministry of Health, 2013

Health-related data published in 2011 show 24.4 physicians, 47.4 nurses and 20.7 hospital beds per 10,000 people. The Ministry of Health (2011) further stated that 58.9% of all hospital beds were provided by the Ministry, 21.1% by the private sector and 20% by other government agencies. While the health system is being privatised, 70% of hospital services were provided directly by the Ministry in 2011.

At a private sector providers' meeting in Riyadh in February 2013, the Minister of Health said that under the ninth development plan (2010–2014) the number of hospital beds would increase from 30,000 to 66,000. The Ministry now has 17 psychiatric hospitals with 5,000 beds and 2,199 primary healthcare centres of the 3,000 planned for this five-year plan, and the health budget for the current year was SAR 100b (Rasooldeen, 2013):

A total of 103 hospitals will be completed and furnished during this year. Agreements will be signed for another 19 new hospitals. The ministry is planning to complete five medical cities in the Kingdom, including King Fahad Medical City serving the Central Province, King Abdullah Medical City serving the Western Province, King Faisal Medical City serving the Southern Province, Prince Mohammed bin Abdulaziz Medical City serving the Northern Province, and King Khalid Medical City serving the Eastern Province (Rasooldeen, 2013, p. 1).

#### **2.4.4 Healthcare education.**

The Ministry of Health (2011) noted that health education enables Saudis to take a greater part in the large health sector, a point also made by recruitment firm Helen Zeigler and Associates regarding nurse training (2013). The Ministry reported that 'health institutes' were being upgraded to 'colleges of health science'. The health institutes were initially aimed at a vocational post-secondary school diploma; that is, for those students that completed either a standard or a vocational secondary school curriculum (grades 10–12). The Ministry noted that nursing students can now study for a domestic nursing degree and can readily access overseas scholarships, although women require a male relative's approval to study abroad. The Ministry of Health stated that there were a total of 40,591 students studying within vocational and university 'medical and health' establishments in 2011, 48% of these being women. In addition, there were 4,115 diploma and degree graduates for the previous year with 47% of these being women.

In a recent study, Al-Mahmoud, Mullen and Spurgeon (2012) explained the issues encountered by the Ministry in the Saudisation of the public health services in attracting students and retaining Saudis in the workforce. While Al-Mahmoud et al. recognised the societal gender issues, they focused on training of nurses in all 99 Saudi institutions, for which they found no official data. They found that although there were significant increases in nurse student placements, these were primarily vocational. At the time, there were no degree-level nursing courses available to Saudi men in the highly segregated sector. They called for better statistics, central data collection and better planning to provide for nurse educators and to promote the profession within the community. Further, there were regional and gender disparities in the many applications for nursing jobs, but the researchers were unable to determine the exact number of qualified applicants. Similarly, in an industry report, Colliers (2012) emphasised the need for the government to ensure that tertiary educational institutions were capable of producing the quality healthcare professionals that the country needed. To meet the quality constraints forced by privatisation and the proliferation of insurers, minimum conditions for employment, focusing on careers were necessary. Nurse careers were necessary to attract Saudis to well-paying jobs, and for the country to reach healthcare standards comparable to other nations.

In the province of Ha'il in 2011, the Ministry served a population of 622,495, of whom 505,588 were Saudis. The statistics for available healthcare professionals are presented in Table 2.5.

Table 2.5

*Ha'il: Healthcare resources 2011*

Profession/occupation	Gender	Saudis	Non-Saudis	Total
Physician	Male	29	821	850
	Female	3	213	216
	Total	32	1,034	1,066
Nurse	Male	683	16	699
	Female	706	1102	1808
	Total	1389	1118	2507
Pharmacist	Male	25	4	29
	Female	0	2	2
	Total	25	6	31
Allied health	Male	962	36	998
	Female	85	217	302
	Total	1047	253	1300
Medical staff resources		2493	2411	4904

Source: Ministry of Health, 2011.

Table 2.5 shows that Ha'il lacks Saudi national physicians (Saudi 22.4%, Ha'il 3%), nurses (Saudi 33.6%, Ha'il 28.8%) and allied health workers (Saudi 69.1%, Ha'il 9.3%). Interestingly, Ha'il women were predominant in the health field, at 52% of Saudi medical workers, given that in Table 2.1 Saudi women's employment rate was 12.6% (25,539 workers). Male Saudi nurses were 2% of the total nurse contingent in Ha'il.

The number of nurses required for a healthcare workplace varies according to the nature of the patients' needs, location and region. In Europe, the Royal College of Nursing, UK (2010) was understandably cautious in recommending nurse–patient quotas; however, the following recommendations were made:

General recommendations regarding staffing numbers:

- every patient in critical care unit to have access to a registered nurse with post registration qualifications in the specialty
- ventilated patients should have one nurse: one patient
- nurse patient ratio of unit should not fall below one nurse: two patients
- a supernumerary clinical co-ordinator (senior critical care qualified nurse) should be available for units of six beds or more (Royal College of Nursing, UK, 2010, p. 42).

These guidelines extended to children's wards (from 1:3 under two years of age to 1:5 over five years, at night). Psychiatric care was recommended at least two registered nurses at night per 15 acute patients, regardless of others on duty (Royal College of Nursing, UK, 2010). In Victoria, Australia, the nurse-patient ratios form part of public sector employment awards and range for the metropolitan average of one nurse for four patients in general wards to one nurse for 10 patients at night in small regional hospitals (Fair Work Australia, 2012).

With the exception of California, the US does not mandate nurse-patient ratios (Chapman et al., 2009). In 1999, according to Chapman et al., California mandated minimum nurse-to-patient ratios and these were phased in between 2004 and 2008 in the time of a severe registered nurse shortage. Surveying 12 profit, not-for-profit and public hospitals the authors found that the majority of hospitals found it difficult and expensive to recruit registered nurses to meet the ratios. There were also 'negative impacts, such as a backlog of patients in the emergency department and a decrease of other ancillary staff' (Chapman et al., 2009, p. 321). The participants did not report any effect on patient quality of care when ratios were fully implemented. Findings were mixed for nurse satisfaction; patient workload improved on the one hand, on the other, duty nurses could not be relieved until another nurse



was present. The Saudi Ministry of Health has dated records of hospital beds and of nurse categories and numbers, without stating nurse–patient ratios.

#### **2.4.5 Section summary.**

This section described the status of healthcare services in Saudi Arabia and the province of Ha'il. The information shows that the Kingdom provides adequate services for its population, and importantly, the millions of pilgrims of the hajj who descend on Saudi Arabia each year. Public health services were until this century largely dependent on oil prices, with the priority given to development of facilities in hospitals and health centres. Health services were free until a decade ago, when the large numbers of expatriates accessing services and the principle of Saudisation moved the government to impose fees on employers importing labour to offset costs. This led to an impost on all employers to assist in their employees' health insurance, and this occurred in an era of privatisation.

The Kingdom continues to spend some 12% of its annual budget on facilities and services. This expenditure is largely on international resources, human and project-based, while attempt to interest the private sector in taking up part of the health responsibility is difficult, given the continuing state of the world economy. Further, the ministry seems unable to entice Saudis into the onerous world of services that Saudis have traditionally shunned. Hence, there is a large unmet need for health services and a lack of Saudis willing to take up the admittedly long hours and low pay of health professionals. This is evident in the available statistics for Ha'il, where there appears to be little interest by Saudi men in health employment and marginally more by women. However, those Saudis studying health qualifications are evenly distributed by gender.

## **2.5 Nursing**

This section of investigates nursing in Saudi Arabia and Ha'il. It first examines the education system in nursing credentials and qualifications, then the experiences of nurses in the hospital environment.

### **2.5.1 Education.**

Established as a joint program between the Kingdom and the WHO, nurse's aide training began for Saudi men only in 1958 at a healthcare institute in Riyadh (King Faisal Specialist Hospital and Research Centre, 2011). The first cohort comprised 15 boys who had completed primary school. Two institutes for girls, one each in Riyadh and Jeddah, were established in 1961 over intense opposition from mosques and parents concerned with long working hours and potential inter-gender contact. Nursing training extended to a three-year course on completion of intermediate (grade 9) schooling and by 1990 there were 17 girls' and 16 boys' institutes in various locations throughout the country. In 1992, the training level of Saudi nurses was upgraded. Applicants required secondary (grade 12) school completion for this accreditation and the two certificates existed simultaneously, with both accepted for employment only by the Ministry of Health. The Ministry further upgraded its health institutes to Colleges of Health Science, comprising three years' training for those who had completed secondary school. By 2008, only four health institutes remained, with 33 Health Science Colleges supplying trained nursing staff (15 for males and 18 for females) (King Faisal Specialist Hospital and Research Centre, 2011).

The first Bachelor of Science in Nursing qualification was established in Riyadh's King Saud University in 1976, complemented by a Master of Science in Nursing in 1987 (King Faisal Specialist Hospital and Research Centre, 2011). The bachelor's qualification was introduced at King Abdulaziz University in Jeddah in 1977 and in King Faisal University

in Dammam in 1987. Bachelor's qualifications continued to commence in other institutions such as the National Guard Nursing School in Riyadh and Jeddah, the Dar Alhikma Nursing School in Jeddah and the Nursing College at Umm Alqura University in Madinah. The King Faisal Specialist Hospital and Research Centre (2011) stated that there were fifteen schools offering Bachelor of Science in Nursing in the Kingdom and that all other accreditation ceased in June 2011. King Faisal Specialist Hospital and Research Centre (Riyadh and Jeddah) interlinks its nursing curricula with that of King Abdulaziz University, the National Guard University in Riyadh, King Faisal University in Dammam and Princess Noura University, Riyadh to provide clinical practice for second, third and fourth year and interns with King Faisal Hospital.

For traditional reasons of gender separation, long hours and low pay, the nursing profession is not universally accepted by Saudi society. Almalki et al. (2011) reported a severe shortage of qualified nurses that affects delivery of healthcare. Earlier, Miller-Rosser et al. (2006) noted the unacceptable standards of the nurse education system at the time, while Mitchell (2009) among others, pointed to a global lack of nurses over the period 2005–2009. Issues with Saudi nursing were cited by Lovering (2008) as gender and working conditions, wages, and status, and these factors are influential in nurse retention, discussed in the previous chapter. Al-Sibai (2013) interviewed Saudi female nursing students who reported that their families and friends attempted to dissuade them from nursing, especially if they received good school results, and recommended the students pursue other professions. Further, the Riyadh Bureau (2013) reported that 15 Saudi women nurses went on strike at Hassan al-Afaliq Rehabilitation Healthcare Centre in Mubarratz, eastern Saudi Arabia in April 2013, to demand that the hospital administration hire male nurses to attend to male patients, despite that treating male patients is part of the contract the nurses signed when they accepted the job.

While undergraduate nurse certification may have ceased in Saudi Arabia, Al-Mahmoud et al. (2012) reported that Saudi Arabia has three nursing qualifications:

- technical nursing: diploma certification from a health institute with 30 months' training including clinical practice
- qualified nursing (enrolled nurse): higher diploma from health science colleges with 42 months' training including clinical practice
- nurse specialist (registered nurse): Bachelor's or above with 60 months' nursing education, including a one-year internship or training in a university hospital.

Again, there is inadequate statistics on the issue of employed or unemployed graduate or certified nurses in the Kingdom, and this point was expressed in another recent media report. Al-Jassem (2013, June) reported that a call was made to provide education outcomes that met the job specifications on offer and a statistics agency that could provide accurate and informative data on the Saudi labour market. Al-Jassem reported that there were 40,000 medical job vacancies that could be filled by Saudis, while an annual average of 330,000 Saudi high school leavers preferred not to undertake further study. The respondent called for a database that identified the number of unemployed, their level of education, and the job seekers' knowledge and experience that employers sought. A Jeddah Chamber of Commerce and Industry representative reported that the Kingdom has a high demand for medical workers:

Unfortunately, most Saudis don't have a good understanding of what it means to have a good work ethic. Medical jobs require qualified people who have the proper work ethic ... Most unemployed Saudis have BA degrees in education and other fields that do not fulfil Saudi market needs. We have vacancies in the private and government

medical sector, and if I receive applications from Saudi nurses, technicians or doctors, I will hire them for sure. (Al-Jassem, 2013, p. 1)

Many applicants were not qualified to fill healthcare jobs and the Chamber representative said that the 28,000 Saudis who graduated from the healthcare institutes could not obtain accreditation to work from the Commission for Health Specialties. This occurred despite the rising demand for healthcare due to population pressures and an ageing demographic. Al-Asmari (2013) reported that a representative of the National Commission for Academic Accreditation and Assessment said that Saudi Arabia needed some 142,000 nurses to bring it into line with a GCC average nurse–patient ratio and that low salaries offered by institutions was an issue. Al-Asmari quoted the representative as calling for a bridging program for some 40,000 male and female Saudi nurse applicants who were unable to obtain accreditation to gain further qualifications. These unregistered nurses were downgraded with loss of pay and thus moved to administrative work.

Saudi nurse graduates are encouraged to enrol in higher degree courses (Miller-Rosser, 2006). However, collaborations with overseas institutions, such as King Faisal Specialist Hospital and Research Centre and Monash University in Victoria, were unsuccessful in gaining sufficient nurse leaders or nurse educators to fulfil the numbers of positions that Saudi Arabia needs. It was found that domestic courses must take up the work of promoting nursing to dissipate the negative images that the media project. Investigation of Saudi Arabia's medical schools found that the number of tertiary institutions in the field of medicine had doubled in five years, although this may include upgrading of diploma-level providers. Given the rapid expansion, the authors queried the quality of the undergraduate medical qualifications and called for “a culture of quality in medical schools in preparation for meaningful accreditation systems that ensure proper participation of all stakeholders in quality management on basis of evidence” (Al-Shehri & Al-Alwan, 2013, p. 8). The

researchers' concerns also related to the nursing profession, given that diploma-level educational curricula were adopted into university level undergraduate courses. Nevertheless, the WHO (2013) reported that, of the Middle East and North African (Arab) nations, Saudi Arabia was second only to the United Arab Emirates in its nursing structures: there is a nursing unit in the Ministry of Health, some education standards in force, a national strategy, minimum standard of completion of secondary school and leadership development programs. Unlike the Emirates, Saudi Arabia was not reported as undertaking nursing education reform (although that may have occurred in 2013) and did not have a national professional regulatory council. Balancing this view, a recent survey of nurses (N=1001) in a large Saudi hospital found that nurses reported authentic leadership, effective decision making, skilled communication and true collaboration, appropriate staffing and meaningful recognition were rated as good (Aboshaiqah, 2013). There is some transition occurring in the Kingdom as the country moves to establishing the nurse profession.

The University of Ha'il's (2013) objectives include graduate qualification in healthcare, contribution to college-level healthcare training and to cooperate with the Ministry of Health to upgrade healthcare diplomas to degrees. The Ministry of Higher Education (2013) reported that the University of Ha'il had a total of 13,591 students and 1,458 faculty members, although further details were unavailable. The Central Department of Census and Statistics (2013c) reported 14,598 people in Ha'il worked in the human health and social work activities sector, which contrasts with Table 2.4's 4,904 attributed by the Ministry of Health's figures in 2011. While only King Saud University offers a Masters degree in nursing to women only, there are no Saudi universities who offer PhDs in nursing-related fields. There is anecdotal evidence of Saudi nurses gaining PhDs (e.g. Villanova University in Pennsylvania, US); however, there are no statistics identified for the number of Saudi PhDs in nursing fields working in the Kingdom.

### **2.5.2 Guest nurses.**

The concept of nursing is multi-dimensional, as shown by a perusal of the internet. There are dedicated international nurse congresses that set nursing standards and represent nurses around the globe: the Florence Nightingale International Foundation/International Council of Nurses in Geneva, the European federation of Critical Care Nurses associations in Amsterdam and the International Nurses Association in New York. There is also an international credential organisation in Philadelphia, PA. Nurse organisations then exist as part of many other international agencies, such as the World Health Professions Alliance in Ferney Voltaire in France and the WHO. Nevertheless, the majority of sites relate to recruitment agencies and news in the Saudi media tends to focus on Philippine and Indian nurses due to their numbers in the Kingdom. There appears to be no recourse for expatriate nurses to international intervention in the case of exploitation or workplace conditions.

Recruitment of foreign nurses in the Kingdom may be influenced also by the incidence of nurse maltreatment in developing countries, acknowledged by the WHO (2010) in its Global Code of Practice on the International Recruitment of Health Personnel. The WHO noted the contribution of medical migration in developing and strengthening national health systems and called for good management of recruitment processes. To this end, it set out voluntary international principles to mitigate the negative effects of health workers' migration on the home systems of developing countries and to safeguard the rights of health professionals in host countries. Article 5.4 of the Global Code of Practice (2010) states:

As the health workforce is central to sustainable health systems, Member States should take effective measures to educate, retain and sustain a health workforce that is appropriate for the specific conditions of each country, including areas of greatest need and is built upon an evidence-based health workforce plan. All Member States

should strive to meet their health personnel needs with their own human resources for health, as far as possible.

Saudi Arabia is a member of the WHO (2006) and a recipient of its human rights reports. The global code of practice recommends that educational institutions should focus on health professionals training by developing innovative curricula and to ensure that professional development structures are in place in both the private and public sectors. While Nitaqat provides training for basic workplace functions such as English fluency and the various computer applications, there is no pressure on the private health sector to maintain professional development for their contractors. As Ramady (2013) noted, employers faced with 'high' minimum wages for Saudis may circumvent government regulations rather than paying Saudi wages, for example, to unregistered nursing aides.

Further, to strengthen the international framework of health workers' migration, the code recommends in Article 5.2 that bilateral arrangements should be undertaken to promote international standards for the recruitment of health professionals. The article advocates for these agreements to contain technical assistance to the expatriates, support for their retention in the host country, social and professional recognition of expatriates, continued professional development, twinning of health facilities, development of appropriate regulatory frameworks and the support of return migration (WHO, 2010). While the Kingdom recently signed an agreement with the Philippines regarding domestic workers (Corpin, 2013) under the International Labour Organisation edict, the government has yet to comply with the WHO's code. Lu (2013) reported that in 2008, 57% of all Philippino nurses abroad worked in Saudi Arabia.

The attraction for expatriate nurses to work in Saudi Arabia is a tax-free salary, free accommodation, overtime pay set at 1.5 times salary, free medical care, six to 10 weeks' annual leave, one- to two-year contracts renewable for 10 years, plus at least one extra return



air ticket on contract renewal. Families may accompany male recruits for specified positions and receive similar accommodation, travel and medical benefits; other GCC countries are more generous with family accommodation. Al-Ahmadi (2013) noted expatriate women employed as nurses could not gain family visas and thus left after their initial term of employment. Saudi hospitals generally base their salary and allowances on rates prevailing in the recruit's country of origin, for example, the US, Canada, Europe, Australia, New Zealand, Arab countries and Asian countries (Professional Connections, 2013). As a guide, Western Australian rates in 2012 ranged from A\$55,600 to A\$80,200 pa for registered nurses and reached A\$138,000 pa for senior nursing positions (Government of Western Australia, 2012). There were many (unnumbered) Saudi nursing positions available across the country as of September, 2013 (Professional Connections, 2013).

The majority of nurses recruited by the Ministry of Health are from India and the Philippines, while other sources include Malaysia, Australia, the US, the UK, South Africa, other Arab and Asian countries (Almutairi, Gardner, & McCarthy, 2012). Almutairi et al. explained that while there are differences between the nationalities through qualifications and experience of recruits, all differ from the Saudi culture and expected norms, which can cause cultural conflicts arising from nurse–patient interaction to the extent that it can threaten the quality of care and patient safety. While Saudi patients' cultural needs are an issue, media reports describe frequent attacks on nurses and violation of their rights such as underpayment and abuse of working conditions (ABS-CBN News, 2013; Saudi Gazette, 2013, 8 April). For example, it was reported that an expatriate British nurse appeared to have settled into a Riyadh nursing position with not much difficulty, citing language difficulties with patients as the greatest challenge. Life in a compound, sharing accommodation and expenses on taxis for shopping and internet for family and friends, and travelling with new friends were all

attractive to the nurse; salary was similar to the UK and there was no tax in the Kingdom (Professional Connections 2013).

The purpose of Nitaqat is to transfer foreign skills to Saudi nurses as the nationalities worked side by side. There is another factor to be considered here, and that is that expatriate nurses may be travelling to further their careers through wider experience. In a meta-study of the literature, Newton, Pillay and Higginbottom (2012) found that factors affecting foreign nurses were the immigration purpose and experience, culture of the host country, accreditation in the host country, lack of opportunities to use experience and additional qualifications, discrimination and their coping abilities. Newton et al. reported that nurses' reasons for travel, that is, improved income and professional stature, were in the great majority non-existent. Cultural differences were experienced as communication and language difficulties, isolation, and in professional practice. For the individual, deskilling and discrimination hindered transition into the new job and demoralised many expatriate nurses. Fielden (2012) advocated for nurse managers to be trained to lead young Saudi nurses, finding that intention to stay was thereby improved.

### **2.5.3 Working conditions in Saudi hospitals.**

Saudi Legal, an employment firm of Hatem Abbas Ghazzawi & Co. (2013), advises on the *Labour Law, 2005*, a modification to the 1969 Labour and Workmen Regulation. The changes to the older regulations concern Saudisation, as the Labour Law decrees that 75% of employees should be Saudi. Exemptions relate to the suitability of the job (i.e., construction); or qualifications or accreditation, that is, Saudis do not have the skills and knowledge to suit the job specification. Saudilegal explained the introduction of Nitaqat and its effects on tightening the reach of the exemptions for Saudisation, giving the examples of a petrochemicals firm of 500 employees that requires 45% Saudi employees to attain the green

category, while a general manufacturer of 500 employees requires only 20% Saudisation to reach green. Saudilegal's version of women's employment is restrictive:

Women may be employed, but work permits for non-Saudi women tend to be restricted to the health, education and air transport sectors. There are no restrictions on the employment of Saudi women, provided that the appropriate working environment is provided. (Hatem Abbas Ghazzawi & Co., 2013, p. 1)

Many social norms that restricted Saudi women's employment are being progressively removed. Anabtawi (2012) reported that the Ministry of Labour changed unspecified laws so that women no longer need the consent of their fathers or custodians (a male relative or husband) to be employed, and that "about 20,000 Saudi women are looking for work ... in production sectors; 16,000 in construction and contracting; and 65,000 in insurance" (Anabtawi, 2012, p. 1). However, as at 30 November, 2013, women may not drive a vehicle (Toumi, 2013).

In regards to nurses, men and women, according to Saudilegal, Article 8 of the *Labour Law* states that an employment contract cannot include waiver of rights and it must be in writing, although the employee's rights stand if there is no written contract. The employment contract must state if it is fixed term or ongoing, whether a probationary period applies, specify salary and conditions. There is a minimum wage of SAR3,000 per month for Saudis (Anabtawi, 2012). Other aspects of the employment relationship: "working hours, holidays and rights of termination, are governed by the Regulation and need not be set out in the employment agreement" (Hatem Abbas Ghazzawi & Co., 2013, p. 1).

To facilitate private sector job creation for Saudi youth the Ministry of Labour set a minimum wage, reduced working hours from 48 hours per week to 40, increased days of work per week from one to two, and employers must have an organisational structure to

specify job content and position in the organisation and to provide for career progression (Abdulwahid, 2013). Under a fixed term contract, an employee's status, wages or conditions may not be reduced within the contract period, although for ongoing contracts this may be adjusted if circumstances change. At the end of a fixed term contract, the employee is entitled to a bonus based on 10 weeks for five years' service, doubling after 10 years. Resignations affect eligibility. Dismissals are regulated. Public holidays (10 per annum) are set by the Minister of Labour. During Ramadan, the month of fasting, the Muslim employees work a six-hour day (now a 30-hour week), and "It is common for Muslim employees to receive a thirteenth month's salary on the occasion of the Eid Al Fitr public holiday, which marks the end of Ramadan" (Hatem Abbas Ghazzawi & Co., 2013, p. 1).

All employers contribute 2% of annual salaries for workers' compensation and there is a retirement scheme for Saudis, whereupon the employer and employee each contribute 9% (18%) of salary per year. Medical and hospital care is free for Saudi citizens; for all non-Saudi employees, and for Saudi employees who wish to be covered, health benefits are provided by the employer. There is a health and safety article in the *Labour Law* (Hatem Abbas Ghazzawi & Co., 2013).

## **2.6 Chapter Summary**

Saudi Arabia's health agencies are unable to attract nationals into employment as doctors, nurses, pharmacists or dentists (see Table 2.3). However, Saudi allied health workers appear to fulfil the majority of such positions and there are significant, although unknown, numbers of Saudis studying health-related professions in dedicated universities and faculties around the nation. In addition, many Saudi nationals are on overseas scholarships around the world. The overall experience of successful transition of Saudis from the health education system to the workforce is unknown and under-researched, as Al-Shehri and Al-Alwan

(2013) noted when this problem in information for health workforce planning and called for a culture of quality and meaningful accreditation systems.

The WHO (2011) identified the extent of global movement of the nursing workforce with developing countries such as the Philippines producing professionals capable of serving the global population need for nurses. While researchers and commentators point to religion, culture and social norms to explain the indifference of Saudis, especially women, to paid work, the country cannot afford to pay its citizens for a chosen lifestyle that does not include economic and social exertion towards a common goal. Saudis may very well be able to pay for foreign workers such as domestic staff and nurses; however, they cannot expect the quality they require if they rely on an expatriate workforce that will not remain for the long term and build the healthcare system. While the Labour Law shows that social barriers to women's nursing careers are being removed, this does not apply to Saudi men, who are free to pursue careers in the healthcare industry, and in this case, the public service jobs they so desire. This chapter presented the context of the study, while the next chapter introduces the literature review prior to theoretical framework and the government structures that support nurses in Saudi Arabia.

## **Chapter Three: Literature Review**

This chapter reviews the literature concerning intention to leave employment and intention to leave the profession and also regarding job stress, burnout and job satisfaction. The context for the study is nurses working in the province of Ha'il in northern Saudi Arabia. The chapter is constructed thus: first the literature search strategy is explained, and this is followed by the discussion. The discussion is presented as the concepts and empirical literature on job stress, burnout, job satisfaction and intention to leave. Finally, the research concept is explained within the context of the literature.

### **3.1 Literature Search Strategy**

A review of the literature was undertaken to provide background to the study. The English language literature search commenced in 2012 and was initially limited to five years (2008). When a systematic search of EBSCO, Google Scholar, Ingentia, Questia, JSTOR, SSRN and Wiley among others sourced a number of relevant articles, these were insufficient to provide a comprehensive review. When these terms were accessed in the Arabic language, it was found that the health and employment studies databases were underdeveloped and often not indexed for retrieval. Articles published in English in refereed journals in the past 11 years (2003–2013) were empirical studies conducted using quantitative and qualitative research methods, randomised controlled trials, and reviews and meta-studies. The search strategy employed various combinations of the dimensions or focuses of job stress, burnout, job satisfaction and intention to leave. Abstracts of articles were screened to check for eligibility based on study inclusion criteria.

#### **3.1.1 Literary and secondary sources.**

The electronic databases searched from 2003 to 2013 and the dates were CINAHL, PubMed, Proquest and Scopus. A supplementary manual search of journals relevant to this

research was also conducted in the RMIT University Library for the period: *Australian Nursing Journal*, *American Journal of Nursing*, *British Journal of Nursing*, *Canadian Journal of Nursing Research*, *Australian and New Zealand Journal of Mental Health Nursing* and *Journal of Nursing Research*. Older articles dating back to the mid-twentieth century were included as seminal articles establishing principles for the theories under review, and describing the evolution of models and particularly, the measures for the concepts. These were identified through sourcing works by the initiators or advocates for job stress, burnout, job satisfaction and intention to leave, and their reference lists (Polit & Beck, 2010).

A number of internet sites relevant to nursing such as the International Council of Nurses, WHO, Saudi Nurses Association (King Abdullah University) Emirates Nursing Association, Australian Professional Nursing Association and American Nurses Association were searched for related information. Additionally, reports provided by the Saudi Ministry of Health, the Order of Nurses in Lebanon, and the North Africa and Middle East Nursing Informatics Association were assessed.

### **3.1.2 Search terms.**

The key terms included in the search were related to the research questions. The following or Medical Subject Headings or search terms using Boolean operators (with or without asterisk) were job stress, job satisfaction, burnout, intention to leave job, intention to leave employer, intention to leave profession, employment, working conditions, stress factors, burnout factors, job satisfaction factors, hospital working conditions, hospital turnover, hospital administration, hospital teams, nurse, nursing, nurse patient, nurse working relationships, nurse overwork, nurse attitude, nurse shifts, nurse profession, nurse training, nurse education, nurse career, nurse supervisor, nurse administrator, nurse tutor, Arab, Saudi Arabia, Middle East, Saudi nurses, Saudi male nurses, Saudi female nurses, Saudi child care, Saudi part time nurses, Saudi expatriate nurses, Saudi foreign nurses, Saudi culture, Saudi

workplace culture, Saudi employment contracts, Saudi work commuting, Saudi gender separation and Saudi workplace separation.

A search for model measures for job stress, burnout, job satisfaction and intention to leave was also conducted among the English language electronic databases listed above. These terms were supplemented by authors who may have worked in emerging economies and adapted ageing variables to reflect a patient-centric model and especially the evolution in technology since the original measures were established. While this may narrow the number of studies where researchers' findings may be compared to the current study, it also affects the relevance and validity of the conclusions for this research. The search thus used the following terms for the four models: measures, variables, factors, Arab, critique, sample, data collection, data analysis and gender.

Lists of relevant articles were produced and titles and abstracts rated by relevance and dates. The criteria used were the academic rating of the journal or the author/s, then methods and measures employed for the research, context or generalisability (towards the current research), comprehensive sampling and a clear outcome. The results for the literature searches are shown in Table 3.1.

Table 3.1

*Literature search summary*

Database	Search Terms/Process				Removal of duplicates	Relevant to study
	Job stress	AND Burnout	AND Job satisfaction	AND Intention to leave		
CINAHL	620	121	74	4	0	4
Scopus	10,395	1,879	1,008	28	0	28
GoPubMed	3,680	791	527	16	0	16
ProQuest	40,342	3,670	2,405	441	11	31



The table above shows the search term process for the selected databases. ProQuest offered the majority of papers containing job stress, and continued to predominate as further search terms were added. As noted, priorities included quality of journal or writer/s; that the research was relevant to the themes and to nursing or public enterprises in an emerging nation; and finally, that the context was Saudi Arabia. After establishing the antecedents and development of each dimension and its model, and the context of nursing in Saudi Arabia, the most recent papers from all sources were selected. These are presented below.

### **3.2 Job Stress Theory and Practice**

Job stress theory can be traced back through the early twentieth century, based on the fields of organisation and psychology. Job stress arguably came to the attention of industrial psychologists in the late 1970s, when Beehr and Newman (1978) studied the literature to identify occupational health aspects denoting occupational stress. They posited that the factors leading to job stress could be identified as environmental, personal, thinking process, human consequences, organisational consequences, time and adaptive responses. Behr and Newman questioned the rigour of existing research and called for more substantial studies.

Person–environment fit theory was of research interest in the late twentieth century and a widely accepted research framework (Brewer & Macmahan, 2004). Edwards and Cooper (1990) explained that the person-environment fit approach to stress research has two dimensions. The first relates to the resources supplied by the environment and the person's motives, goals and values, while the second focuses on the 'fit' between the demands of the workplace and the personal skills and knowledge of the person. There is also an intrinsic–extrinsic element as the personal–environmental variables are either perceived by, or act upon, the individual. The central premise of this version of personal–environment fit is that stress will occur if there is a mismatch between the two dimensions of the theory, as perceived by the individual (Edwards & Cooper, 1990). Kristof-Brown and Jansen (2007)

simplified this construct, stating that person–environment fit theory is a multidimensional construct composed of an individual fit within the workplace’s various relationships. The multidimensional aspect of the theory facilitates predictions of workplace stress, withdrawal, or environmental adjustment.

In terms of US researchers, Cherniss (1980) studied burnout as job stress, Jackson and Maslach (1982) considered the after-effects of jobs stress on employees’ families, and Latach (1986) developed a scale for job stress that measured control, escape and symptom management. Over the next decade, management and organisational investigators moved into the field; however, the literature largely arose from research conducted in North America and the UK. Examples were Jex (1998) studying job stress and job performance and Keller (2001) investigated job stress in cross-functional teams in the US. Grunfeld et al. (2000) examined job stress and burnout in healthcare workers in Canada; and Ramirez et al. (1996) and Rout et al. (1996) also studied the effects of job stress on job satisfaction among British health workers.

### **3.2.1 Job stress indicators.**

From 2000, research attention widened to emerging economies with Abualrub’s (2004) study being a good example. Stress from risk of job loss in Japan was studied by Tsutsumi et al. (2001) and job stress and burnout among Greek workers was the subject of a meta-study of the literature of the time by Iacovides, Fountoulakis, Kaprinis and Kaprinis (2003).

Other variables were also associated with job stress, such as counterproductive work behaviour (Fox, Spector & Miles, 2001; Penney & Spector, 2005) and job stress as the cause of health issues (Peter, Siegrist, Hallqvist, Reuterwall & Theorell, 2002). Organisation of work was also a popular variable associated with job stress (Bond & Bunce, 2001; Semmer,

2006). In contemporary studies, the dependent variables of job satisfaction, burnout and intention to leave are predominantly associated with job stress. These studies are indicative of the literature and are noted solely for the purposes of informing this study. In Penang, Malaysia, Abd Malek (2010) found in a survey of 150 university staff that they reduced social contact when under stress, leading to absenteeism and intention to leave the organisation.

A German study served to encapsulate the intense interest in job stress in the health industry, specifically hospitals, where nursing shortages and staff turnover were global issues. Sehlen et al. (2009) surveyed members of the German Society for Radio Oncology, including 125 nurses from eight university hospitals and three general hospitals. The respondents completed the German Stress Questionnaire of Physicians and Nurses, and questions on job satisfaction. Sehlen et al. (2009) explained that the nature of care in hospitals was:

Characterised by modern treatment techniques and a higher demand for patient information about the underlying disease and therapeutic options. At the same time, the restructuring of health services and reduced funding have led to the downsizing of hospital care services. These trends strongly influence the workplace environment and are a potential source of stress and burnout among professionals (Sehlen et al., 2009. p. 1).

The survey showed that the highest level of burnout and stress were from nurses and physicians; with the highest level of job stress stemmed from industrial conditions (pay, pace of work) and professionalism: the ethical and compassion concerns for the patients. The researchers concluded that the workplace environment caused the stress levels and satisfaction, and that the organisation should identify and remove critical points of stress to lower these levels for workers.

The relationship between job stress as the independent variable and burnout as the dependent variable was confirmed in Taiwanese male nurses (Hsu, Chen, Yu & Lou, 2010). Hsu et al., used a cross-sectional design to survey 121 male nurses and data were analysed 'using descriptive statistics and stepwise multiple regression (Hsu et al., 2010, p. 1592). In Korea, job stress was found by Yoon and Kim (2010) to be associated with burnout and job description. Yoon and Kim surveyed 283 nurses in four Seoul general hospitals and data were analysed using descriptive statistics, ANOVA and the stepwise multiple regression test. In Italy, Lautizi, Laschinger and Ravazzolo (2009) conducted a survey of 77 mental health nurses as a convenience sample using multiple regression analysis. Lautizi et al. (2009) were seeking decision-making capacity in empowerment. The results of the study were that structural empowerment was found to be significantly related to job satisfaction, as was global empowerment. The researchers also found that empowerment also had a significant negative relationship to nurses' work stress. These findings supported Sehlen et al. (2009), in that Europe's shortage of nurses predicated change in the historical relationships among medical staff. Studying causal attribution to work stressors for 934 nurses in Finland, Hayabatollahi (2009) found that organisational factors such as position in the organisation (management) moderated the relationship between work overload and ability to respond positively. Hayabatollahi used five scales; the first for causal attribution was measured using the Occupational attribution-style questionnaire (Furnham, Brewin & O'Kelly, 2004). The next, work engagement, was assessed through the Utrecht work engagement scale (Schaufeli & Bakker, 2003); turnover intention by the Measurement of psychosocial strain at work (Van Veldhoven & Meijman, 1994) scale and, last, organisational identification by the Mael and Ashforth (1992) measure. These combined factors moderated the relationship between working environment and turnover intention. However, perceived issues in the working environment increased turnover intention among staff nurses.

### **3.2.2 Job stress in nurses in Middle Eastern countries.**

Studies within the Saudi healthcare sector established the following variables that influenced job stress: working conditions in Saudi hospitals, work relationships, role conflict and ambiguity, organisational structure and culture, lack of shift flexibility and career development opportunities and the demanding nature of the nursing profession (Almalki FitzGerald, & Clark, 2012; El-Jardali, Dimassi, Dumit, Jamal, & Mouro, 2009; Flinkman, Laine, Leino-Kilpi, Hasselhorn, & Salanterä, 2008; Zakari, Al Khamis, & Hamadi, 2010). Other researchers include Al-Hosis et al. (2013), who studied public hospital nurses in the Qassim region, finding job stress among nurses was attributed to workloads, responsibilities, patient and family issues and time constraints, leading to health issues. Al-Hosis et al. (2013) used a descriptive explorative design and a purposive sample of 152 Saudi nurses from the four Ministry of Health hospitals. Of interest to this research, Al-Hosis et al. also collected nurses' socio-demographic data and their work characteristics. However, they selected an occupational stress scale and work stress symptom scale for their measures. Al-Hosis et al. also established a lack of social support from colleagues and superiors as leading to health issues among nurses. Job stress indicators found in Saudi hospitals confirmed the results from a study by Kamal et al. (2012) among nurses in Taif public hospitals, which highlighted job stressors that included dealing with patients and their families, inadequate preparation to deal with patients' emotional needs, workload, problems with supervisors, uncertainty concerning treatments, conflict with physicians, death and dying, discrimination and problems with peers. Kamal et al. used a descriptive-correlational cross-sectional analysis for their data from a convenience sample of 148 nurses. They employed an expanded nursing stress scale and job satisfaction scales in their study.

In a Jordanian study, job stress among nurses was due to work and family balance, economic factors, job difficulty, peer competition and organisational environment with

nurses' performance measured by creativity and innovation, problem solving abilities and decision making (Al-khasawneh & Futa, 2013). A random sample of 120 nurses was selected from King Abdullah Hospital in Irbid city, and the data analysed through descriptive statistics and tested through a coefficient. The study established a positive relationship between organisational environment and performance; and to a lesser extent, job difficulty and performance. The authors recommended improvements in the hospital organisational environment and leadership support to reduce stress among nurses. In an internet-based survey, Abualrub and Al-Zaru (2008) found that job stress increased turnover intentions among nurses.

There is largely agreement in the literature concerning the key indicators of job stress. Job stress has largely been attributed to organisational issues whereby technological change, greater transparency on patients' condition, and resource restraints are combining to challenge the traditional hierarchical hospital model. Changing the focus from hospital administration to the patient could be a basis for structural reform.

### **3.3 Burnout Theory and Practice**

Burnout appeared in the literature in the 1970s, developed by Freudenberger in the early 1970s and was originally defined as a state of fatigue or frustration that resulted from professional relationships that failed expectations of reward (Freudenberger, 1974). Daley explained this emerging field of study as:

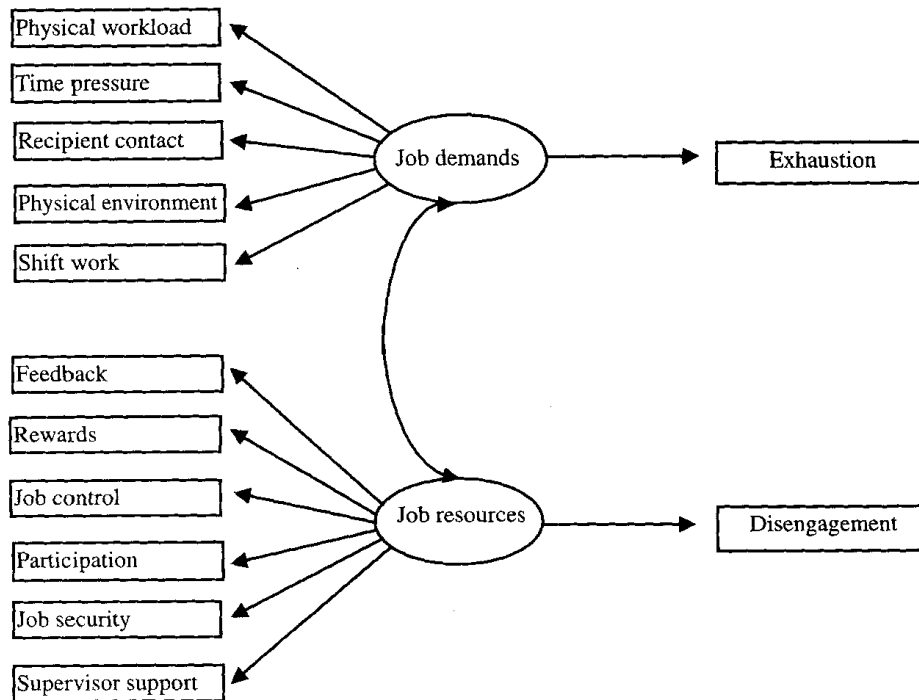
Inability to handle continued stress on the job that results in demoralization, frustration, and reduced efficiency has come to be termed 'burnout' (Daley, 1979, p. 375).

The impetus for Daley's observation was an article published in the previous year by Maslach (1978) to explain the phenomenon that occurs among professionals who have continuous and

direct contact with patients, welfare clients or prisoners. These professionals operate in an often emotionally charged environment, constantly dealing with other people's problems. Maslach explained that over time, the stress of interpersonal contact can result in emotional exhaustion where workers experience a gradual loss of sympathy and respect for their charges. This may lead to a cynical perception of clients, and burnout is associated with low morale and high job turnover. Maslach advocated for professional training in interpersonal skills and management of stress to prevent the occurrence of burnout among workers.

There are several approaches to address the phenomenon of job burnout (Brooks, Bradt, Eyre, Hunt & Dileo, 2010). The Maslach Burnout Model, discussed in the next subsection, was developed by Maslach and Jackson (1981) and refined over time and is the most widely used in research (Diestel & Schmidt, 2010). Of other measures, the conservation of resources theory was developed by Hobfoll in 1988 (Hobfoll, 2001). In this theory, individuals seek to acquire and maintain their resources, including necessities such as food, shelter, food; self-esteem; and conditions such as family, friends and financial security. Stress occurs with the threat or loss of these resources, and conservation of resources theory posits that resource loss is a primary component of the stress process. Resource gain is therefore the antithesis of loss. Since resources may be increasingly consumed to prevent resource loss, there is a staged stress process where the individual is increasingly vulnerable to stressful outcomes.

Taking burnout theory beyond the human services, Pines' burnout measure, a widely-used self-report survey on burnout, was developed by Pines and Aronson (1988). It included 21 items assessing physical and emotional exhaustion, and a later version of 10 items (Pines, 2005). Demerouti, Bakker, Nachreiner and Schaufeli (2001) hypothesised that job demands are primarily and positively associated with exhaustion, and job resources are primarily and negatively related to disengagement from work (see Figure 3.1).



Source: Demerouti et al. (2001, p. 503)

Figure 3.1: Job demands-resources model of burnout

Testing nurses and teachers (human services), assembly-line workers and air traffic controllers (N=374) in northern Germany, Demerouti et al. (2001) found strong evidence of the model: that job demands are a primary cause of burnout, whereas lack of job resources are primarily related to disengagement. Demerouti et al. produced a new measure, the Oldenburg burnout inventory, and suggested that the inventory was relevant to all occupational groups. The job demands-resources model of burnout gained research attention. In a meta-study of 203 samples (N=186,404), Nahrgang, Morgeson, and Hofmann (2011) tested the relationship between job demands and resources with burnout and with engagement. They found that job demands such as risks and complexity positively relate to burnout and have a negative relationship with engagement. Job resources such as knowledge, autonomy and a supportive environment motivate employees and positively relate to engagement and negatively relate to burnout. Across industries, risk was a consistent job demand and a supportive environment was the most consistent job resource as variables



explaining burnout and engagement. More recently, the Shirom-Melamed burnout measure of 21 items measuring engagement at work, exhaustion and workplace relationships was used by researchers to assess burnout (Shirom, 2003; Shirom & Melamed, 2006).

However, the Maslach burnout model was selected for this research, as it has wide application among researchers working in different occupational environments. The theory has a good balance between simplicity and complexity, contributing to its usefulness.

### **3.3.1 Maslach Burnout Inventory.**

Investigating populations for evidence of job burnout consumed researchers' attention (e.g., Cherniss, 1980; Lee & Ashforth, 1996; Pines & Aronson, 1988), and this intensified when Maslach and Jackson (1981; Maslach, Jackson & Leiter, 1996) developed the Maslach Burnout Inventory. The inventory is a 22-item survey that assessed professional burnout in three areas. The first, emotional exhaustion, measured feelings of emotional overload regarding job demands; the second, depersonalisation, which measured the extent to which the participant felt a lack of response towards the client or patient; while the third, personal accomplishment, sought the participant's feelings of competence and work achievement (Maslach et al., 1996).

Work overload and personal conflict for workers lead to emotional exhaustion, making it difficult for these individuals to face another work day (Jaramillo, Mulki & Boles, 2011). Maslach, Schaufeli and Leiter (2001, p. 399) explained that emotional exhaustion is a result of acute or chronic burnout, resulting in feeling emotionally drained and is the primary stress component of job burnout. Depersonalisation in healthcare workers is characterised by detachment; an inability to emotionally respond to clients or patients, resulting in a lack of empathy and an inability to engage with either their charges or team members. Reduced personal accomplishment refers to feelings of incompetence and reduced engagement with

the organisation's objectives, that is, self-evaluated reduced productivity at work (Maslach et al. 2001). Thus, workplace relationships are fundamental to burnout (Diestel & Schmidt, 2010).

Earlier, researchers conceptualised burnout as a two-factor structure of emotional exhaustion and depersonalisation. Kalliath, O'Driscoll, Gillespie and Bluedorn (2000) used the three-factor Maslach scale and found that the personal accomplishment factor performed weakly. They developed a new measure consisting of the emotional exhaustion and depersonalisation Maslach items, and found a good fit for the stripped-down model. Others suggest that using the emotional exhaustion subscale of the Maslach scale is sufficient because of its strong predictive properties (Nitzsche, Pfaff, Jung & Driller, 2013; Tsouloupas, Carson, Matthews, Grawitch & Barber, 2010). Poghosyan et al. (2009) noted tendency to use the emotional exhaustion subscale as a proxy for the entire Maslach scale, and suggested that division among researchers regarding its use in the US culture brought into question its use in other cultures. Poghosyan et al. expressed concerns about testing for burnout in countries with different work environments and organisational structures. In the Netherlands, Vanheule, Rosseel and Vlerick (2007) studied nurses and assistants working in residential welfare institutions using the Maslach 20-point scale, and concluded that participants from the two samples surveyed interpreted the item questions differently.

However, the three-factor Maslach scale remains the benchmark scale, and thus used to denote burnout. Mäkikangas, Häätinen, Kinnunen and Pekkonen (2011) found it preferable to the one or two-item scales in a Finnish longitudinal study; while Halbesleben (2010) produced evidence that work engagement constructs were negatively associated with burnout. Similarly, Schaufeli, Bakker and Van Rhenen (2009) found that changes in resources and job demands were associated with increased levels of burnout and absenteeism.

### ***3.3.1.1 Criticism of the Maslach Burnout Inventory.***

The Maslach Burnout Inventory was subjected to intense scrutiny by researchers. For example, Schutte, Toppinen, Kalimo and Schaufeli (2000) undertook a multi-national study of a forestry corporation across all occupations, well removed from the inventory's target of staff working with clients in an emotional environment. Schutte et al. (2000) found the fit of the survey on managers, clerks, foremen technicians, blue-collar workers and across nations. This finding was confirmed among international care workers by Green, Walkey and Taylor (1991) and remains in wide use (e.g., Galán, Sanmartín, Polo & Giner, 2011; Poghosyan et al., 2009) to the exclusion of other measures. Nevertheless, scholars' criticism continued, with Kaschka, Korczak and Broich (2011) dismissing burnout as a 'fashionable diagnosis'. Kaschka et al. could not find an accepted medical definition of burnout, 'nor a valid instrument for the differential diagnosis of burnout syndrome' (p. 781). The majority of studies on burnout's dimensions of emotional exhaustion, depersonalisation and reduced performance provide a low level of evidence, and high-quality controlled studies on burnout syndrome are lacking.

Reviewing 35 years of use of the scale, Schaufeli, Leiter and Maslach (2009) reported that the burnout concept appeared to develop within broad socio-economic development at the end of the last century, as industrialisation evolved into a service economy. Schaufeli et al. posited that psychological pressures built during this social transformation that may appear as burnout. Despite its global presence, the concept of burnout differs between countries, either as a medical diagnosis or a social phenomenon without a medical interpretation.

### ***3.3.1.2 Elements of burnout.***

Use of burnout as an independent variable continues to interest researchers studying behaviour of nurses, particularly in Asia. Examples include Xie, Wang and Chen (2011) using a sample of nurses in Shanghai, China. Xie et al. sampled 527 nurses from 41 hospitals in Shanghai and data were collected through a questionnaire based on the Chinese version of Maslach Burnout Inventory. Stress was similarly measured on the survey through the Chinese versions of 'job content questionnaire' and 'effort-reward imbalance questionnaire'. Xie et al. found that nurses experienced high levels of burnout and this was strongly associated with work-related stress; these findings were also produced in India by Dasgupta (2012). In Korea, Ko (2012) studied recovery from burnout, citing techniques that addressed burnout symptoms in nurses that concerned job demand, self-efficacy and job characteristics. In Ireland, O'Mahoney (2011) conducted a literature search and an empirical study using burnout as an independent variable, finding that more than half of the sample (52%) of nurses (N=86) in an emergency department experienced high levels of emotional exhaustion and depersonalisation, and that these results were significantly related to the working environment. In an international study of employees, Jamal (2010) compared significant numbers of workers' experiences in Canada, China, Malaysia and Pakistan. Jamal found that overall job stress: work overload, conflict, ambiguity and resource inadequacy, were significantly related to burnout and intention to leave in each of these countries.

Recent use of the Maslach Burnout Inventory included a US study by Bridgeman (2013), who studied the relationships between job satisfaction, caregiver burnout and quality of care provided by 78 nurses in Florida. Bridgeman also used the job satisfaction survey in this study. The findings were that a relationship was found based on years of experience (not employment) as a negative association with burnout and a positive association with job satisfaction. In the qualitative results, the themes that influenced burnout and job satisfaction

were support services, time and the type of care provided. In Germany, Kozak, Kersten, Schillmöller and Nienhaus (2013) investigated personal burnout among 409 staff working with intellectual disabilities using the German version of the Copenhagen Psychosocial Questionnaire. Using multiple regression, Kozak et al. found that work–privacy conflict, emotional demands, role conflict, job insecurity and feedback were related to personal burnout. Intention to leave was significantly linked to higher levels of personal burnout, while low personal burnout was related to greater job satisfaction and better health. Probst, Griffiths, Adams and Hill (2012) studied burnout in British radiographers in emergency working environments. The Maslach Burnout Inventory was used together with job satisfaction and intention to leave among others for 97 respondents, with 38% reporting emotional exhaustion. Probst et al. found a relationship between burnout with both job satisfaction and intention to leave. Kammeyer-Mueller, Simon and Judge (2013) conducted a study of 133 nurses in Florida through self-reporting by 10-day diary to assess emotional exhaustion. Emotional exhaustion before work was assessed using a 21-item measure developed by Pines and Aronson (1988). Pines’ burnout measure was again used for post-work exhaustion; extrinsic and intrinsic emotion was measured using items from the Global Motivation Scale (Guay, Mageau & Vallerand, 2003). Kammeyer-Mueller et al.’s (2013) findings were that while intrinsically motivated individuals were less likely to be exhausted than those who were extrinsically motivated, intrinsic motivation effects were reduced when participants were tired before starting work.

To ascertain the effect of burnout and job stress factors on oncology nurses, a meta-study was conducted by Toh, Ang and Devi (2012). The relevant studies were examined using the Joanna Briggs Institute-Meta Analysis of Statistics Assessment and Review Instrument. Toh et al. found a two-way relationship between nursing shortages and oncology nurses’ job satisfaction, job stress and burnout levels, although these differed based on

individual differences and work environments. Manager nurses were more likely to report staff shortages leading to job dissatisfaction, job stress and burnout, and these indicators led to leaving the employer. In Spain, Iglesias and de Bengoa Vallejo (2013) studied burnout, job satisfaction and job stress in 74 critical care nurses. Results showed a high level of emotional exhaustion and moderate depersonalisation, with a negative view of career. Saijo et al. (2013) conducted a large study (N=2937) of Japanese physicians in cities, towns and villages using the Japanese version of the Maslach Burnout Inventory. The researchers found significant differences from the three areas, with job demand, job control and exhaustion scores higher in the cities than those in towns and villages. In US Veteran's Affairs hospitals, the Maslach Burnout Inventory was used online to define job stress among 233 members of trauma teams working on brain injuries. Findings of Saban et al. (2013) included moderate levels of emotional exhaustion (24%) and high levels of personal accomplishment. Interestingly, coping strategies included socialisation, healthy lifestyle, outside interests and managing the work environment. In Serbia, 120 psychiatrists and physicians participated in a study to determine quality of life, using among other measures, Maslach's Burnout Inventory (Vicentic et al., 2013). The researchers found that quality of life was higher in psychiatrists, based on finances and friendship, while burnout in women was associated with levels of stress. Vincentic et al. called for more work in the area on the psychological patterns for alleviating job stress.

In these studies, there is some crossover between terms, so that 'job stress' appears to be synonymous with 'burnout'. Arguably, findings from the burnout instrument by a participant sample mirror those taken from a job stress instrument by the same sample. As these studies are based on standardised tests, researchers tend to reach similar findings and make similar empirical conclusions, given many different working environments. The conclusion could be made that similar conditions experienced in stressful situations such as

trauma and emergency working environments in hospitals will indeed have similar outcomes for researchers.

### **3.3.2 Burnout in Middle Eastern countries.**

In a quantitative study on burnout factors of 510 nurses in Al Khobar, Saudi Arabia, Al-Turki et al. (2010) established that three-quarters of the nurses responding to the study reported high or substantial emotional exhaustion, with a similar number reporting depersonalisation. The study established that expatriate nurses experienced greater emotional exhaustion than Saudi nurses, and younger nurses reported higher rates of burnout, confirming the stressful situations in Saudi hospitals. In a similar study, Mitchell (2009) also established high emotional exhaustion and depersonalisation leading to burnout; although Mitchell established high levels of personal achievement among the nurses. A study by Al-Zahrani (2011) established that management practices and perceptions of organisational justice influenced burnout in nurses in Saudi private hospitals. The study found that burnout is an effect of work stress and organisational justice minimised burnout levels among the nurses. Another factor of burnout, fatigue, was found by Hooper, Craig, Janvrin, Wetsel and Reimels (2010) who reported compassion fatigue among American oncology nurses. Hamaideh (2011) stated that, among other factors, fatigue was prevalent in burnout factors for Jordanian psychiatric nurses. Keshvari et al. (2012) found similar burnout-related factors including fatigue among Iranian nurses. Again, there is an issue in comparing disparate studies, methodologies, countries and employment conditions.

### **3.3.3 Disengagement.**

Another term for frustration or burnout is 'disengagement' from the job or the organisation. Arab (2012) found that young Saudi women became disengaged when they found difficulty in integrating with the workplace social environment, raising stress levels.

Arab also found that social support moderated distress. Disengagement from the job and the organisation is evident in the management literature, with Mannelly (2008) stating that supervisor accept that a proportion of the workforce will be less engaged with their work, and, interestingly, that the numbers that are disengaged follow a cyclical pattern over time. This was confirmed in part by Simpson (2009) in a meta-study of nurses' disengagement. Simpson found that the findings confirmed an effect of disengagement on performance and organisational commitment, calling for research to identify aspects of disengagement/engagement and a better understanding of how organisational outcomes are affected, including quality of care indicators.

#### **3.3.4 Application of Maslach Burnout Inventory in research.**

The Maslach Burnout Inventory remains the benchmark measure for burnout and over the decades a large proportion of studies concern nurses. With few exceptions, the studies found evidence of the three factors of burnout: emotional exhaustion, depersonalisation and personal accomplishment. These were invariably aligned to the responsibilities of the job, workloads and resources; thus, initiatives to address burnout are generally in the province of management. Two only suggestions to address burnout were proposed as training (Maslach, 1978) and Ko's (2012) recovery from burnout through identifying critical issues and job re-design.

#### **3.4 Job Satisfaction Theory and Practice**

As a concept, job satisfaction emerged from the Hawthorne studies, which were based on productivity improvement (Petty, McGee, & Cavender, 1984). By mid-century, Locke (1969) was assessing the research interest in job satisfaction and dissatisfaction; however, the causality eluded psychologists. Locke (1976) presented job satisfaction 'a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences'.



Studying teachers, Sergiovanni (1967) identified responsibility, acknowledgment and accomplishment as the most influential factors affecting job satisfaction. Interpersonal relations, organisational policies and practices, equity in employment, status and personal life were factors that contributed predominantly to dissatisfaction. Further, satisfaction factors tended to focus on the work itself and the dissatisfaction factors tend to focus on the conditions of work.

Among the early theories relating to job satisfaction was Maslow's hierarchy of needs. Maslow's theory was developed in the 1940s in relation to motivation, especially for the fulfilling of employees' needs such as work environments that foster and encourage the personal and professional growth of employees (Maslow, 1943). The theory has five sets of goals (basic needs) in a hierarchy, so that when the first level of needs is realised, the next higher need emerges. Maslow's hierarchy progressed from physical needs of survival, safety needs of time, social needs of the individual in the community, status to a transcendent state of satisfaction with life (Montana & Charnov, 2008). The lowest level represents physiological needs and reflects an individual's concern for survival. In the workplace, context physiological needs arguably comprise a favourable working environment. The second category is safety, in this case, job security and appropriate remuneration. The third category represents belonging needs, quality work relationships with colleagues, immediate supervisors and managers, conflict free work environment and teamwork. The fourth category, self-esteem needs represented by recognition and reward, followed by self-actualisation attainment of position, challenge and achievement (Montana & Charnov, 2008). Thus, lack of satisfaction with the lower needs will affect achievement of the higher needs. Job satisfaction falls under esteem needs and is ranked together with management responsibility and prestige, leading to professional achievement (Maslow, 1954). Lambrou et al. (2010) concur, stating that nurses tend to be motivated more by intrinsic factors, so that

achievement is a motivator that accounts for an individual's intensity, direction and persistence of effort towards attaining a goal.

Later, emotional, cognitive and behavioural components were added (Moorman, 1993). The emotional component of job satisfaction is related to the employee's reactions to the work, such as anxiety, boredom or excitement; the cognitive factor in job satisfaction refers to engagement, that the job is intellectually demanding and challenging; while the behavioural component includes the employee's engagement with the work, such as remaining behind to finish a task or absenteeism factors and social engagement with co-workers (Bernstein, 2013).

Other theorists of job satisfaction included Herzberg's two-factor theory (Herzberg et al., 1959). Herzberg et al. posited hygiene factors and motivators. In the workplace, hygiene factors (e.g. remuneration, working conditions, interpersonal relations and organisational policies) could instil negative perceptions and thus job dissatisfaction. Addressing hygiene factors may remove job dissatisfaction; however, resolution of hygiene factors did not necessarily lead to job satisfaction. Herzberg's motivators include the nature of the work, achievement and recognition, the responsibility of the position and career paths (Herzberg et al. 1959). McGlynn et al., (2012) found support for Herzberg's hygiene and motivational factors model in studying job satisfaction and satisfaction with the professional practice environment of registered nurses (N=101). They found the nurses were moderately satisfied with their profession; however, they reported overall low job satisfaction in their employment. Herzberg's two-factor theory thus has implications for this study, as there are two aspects of the nursing profession and the hospital employer involved.

Later, Kalleberg (1977) studied job satisfaction by seeking differences in work values and perceived job characteristics: intrinsic, financial, team relationships, career and resources. Kalleberg conceptualised perceived job rewards as a function of the employee's job control,

thus, job rewards and job values contribute to job satisfaction. This could be viewed as a version of Herzberg's hygiene factors as job rewards, and the motivators as professional fulfilment.

### **3.4.1 Characteristics of job satisfaction.**

Job satisfaction can be defined as a measure of various aspects such as satisfaction with management, satisfaction with the work team relationships; and satisfaction with work rewards (Purani & Sahadev, 2008). Purani and Sahadev argued that trust is fundamental to job satisfaction, and that a high level of trust among employees is reflected in high job satisfaction rates. Employee performance recognition also aids job satisfaction (Tella, Ayeni, & Popoola, 2007). Weiss (2002) identified job satisfaction as an overall evaluative judgment about jobs, affective experiences at work and beliefs about jobs.

Nurse shortages, according to Lu et al. (2012), could be traced to job satisfaction, and a previous 2003 literature review on the topic was updated by the authors using seven English and Chinese databases. They found that, despite differences in job satisfaction scores, findings followed a similar pattern. Job satisfaction among nurses was predicated on organisational environment, working conditions, stress levels, role conflict and ambiguity, and commitment. The authors call for a robust causal model, including moderators, to implement interventions to improve nurse retention.

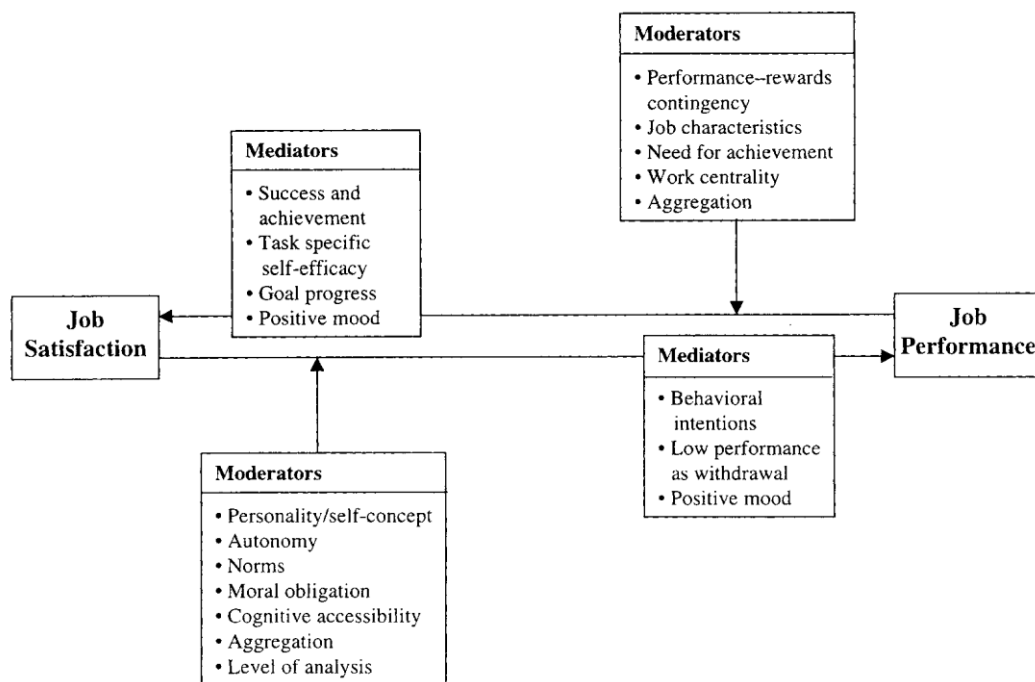
### **3.4.2 Performance and job satisfaction.**

As an independent variable, job satisfaction attracted interest associated with many variables, and variables that received different treatment in Judge et al. (2001). One of the earliest was organisational citizenship, which Bateman and Organ (1983) found held higher correlations with job satisfaction than an array of other measures. This was confirmed by

Williams and Anderson (1991), who found that extra-role behaviours can be distinguished from in-role activities as an indicator of job satisfaction.

The factors influencing job satisfaction are closely related with the factors leading to turnover and turnover intentions among employees in an organisation. Factors such as management engagement, job design in relation to scope, depth, interest and value, working conditions, social relationships and long-term career development opportunities, and level of aspiration and need achievement in organisations influence job satisfaction levels among employees (Azri, 2011). In studying agency theory in job satisfaction, Christen, Lyer and Soberman (2006) posited a positive, direct effect of job performance and a negative, direct effect of effort on job satisfaction. Christen et al. emphasised the need to distinguish between employees' inputs in a work relationship (i.e., effort) and their outputs (i.e., job performance).

Job satisfaction, as noted, was aligned with performance, and Judge, Thoresen, Bono and Patton (2001) undertook a meta-study of the literature at the time, shown in Figure 3.2.



Source: Judge et al. (2001, p. 390)

Figure 3.2: Factors and relationships between job satisfaction and job performance

In their meta-study, Judge et al. (2001) grouped the results into seven models, which they noted had received different attention. Five models used differing independent and dependent variables between job satisfaction and job performance, and the other two incorporated a third variable. The results over the number of papers supported relationships such as depicted in the figure; however, the extent of the direct relationship was unclear.

### **3.4.3 Satisfaction among nurses.**

The effect of nurses' job satisfaction on intention to leave the employer was the subject of Zurn, Dolea, and Stillwell's (2005) study. Working for the Global Nursing Review Initiative of the WHO, Zurn et al. stated that scarcity of professional nurses in hospitals led to increased workload, and that pay and working conditions were barriers to recruiting graduate nurses. About that time, there was a global shortage of nurses, and Takase, Maude and Manias (2005) studied job dissatisfaction and turnover, reviewing quantitative nursing studies of nurses' job dissatisfaction and intention to leave. The paper identified a myth that could interfere with the development of effective nurse retention strategies, that is, that nurses respond passively to their working environment. The person–environment fit theory suggested 'a relationship between person and environment, rather than environmental characteristics alone, that affects nurses' occupational behavior' (Takase et al., 2005, p. 209).

Job satisfaction is positively associated with employee engagement and empowerment, according to Spence Laschinger, Wilk, Cho, and Greco (2009). Spence Laschinger et al. (2009) established that nurse engagement and empowerment increases work effectiveness among new and experienced nurses. Structurally empowering conditions are important in increasing job satisfaction among the nurses. In a study of 189 Chinese clinical nurses, Cai and Zhou (2009) established that moderate job empowerment and satisfaction were negatively correlated with turnover intention. As such, nurses who enjoy their work are less likely to express turnover intention.

There is a positive relationship between employee job satisfaction levels, turnover and intention to leave among nurses (Chen, Chu, Wang & Lin, 2008). McCarthy et al. (2007) argued that as the overall nurse job satisfaction increases so does the intention to remain employed. Nurses who perceive high levels of job satisfaction are more intent to stay in the nursing profession as opposed to nurses with low perceived levels of job satisfaction. As noted, Applebaum et al. (2010) and Ma et al. (2009) established a significant direct relationship between nurses' job satisfaction and turnover intention.

Organisational commitment among Malaysian nurses (N=416) was studied by Lee, Bunpitcha and Ratanawadee (2011), as organisational commitment is important for retention of nurses in public hospitals. Lee et al. determined that organisational commitment could be predicted by perceived organisational support; job satisfaction factors that they established as including pay, job description, employer policies and practices, autonomy, relationships and professional status; plus experience. The study found that nearly half the nurses expressed a high level of organisational commitment, and this could be predicted by dependent variables of job satisfaction such as autonomy, relationships, job description and years of experience. Guntur, Haerani and Hasan (2012) studied the turnover intentions of 140 nurses in private hospitals in Indonesia, using variables of affective, continuance and normative commitment. Affective commitment is the emotional attachment, identification with and involvement within an organisation. Continuance commitment is founded on the underlying cost related with the termination of employee employment while normative commitment relates to maintenance of employee membership in an organisation. The authors found that each had a significant negative effect on turnover intentions, although an emotional attachment of affective commitment produced the dominant effect on the nurses' turnover intentions. Following commitment, Gakovic and Tetric (2003) investigated the concept of a breach in the psychological contract with 161 members of a financial organisation, which led to

perceptions of emotional exhaustion and thus job dissatisfaction. Although not strictly relevant to this study, the results suggested that psychological contract breach contributed to employee experience of job strain, while mediating factors included improved relations with team members and supervision.

In Australia, Cowin (2002) noted that job satisfaction for nurses should consider concrete and intangible variables, such as working conditions for concrete benefits, and career opportunities, rewards and status for intangible benefits. Cowin developed a measure for nurses' self-concept. Hayes, Bonner and Douglas (2013) studied levels of job satisfaction, stress and burnout among Australian haemodialysis nurses (N=417), concluding that although acceptable levels of job satisfaction and burnout were found, stress with workloads and facets of patient care occurred.

Studying 206 expatriate nurses working in a Saudi hospital, Bozionelos (2009) investigated the relationship between job satisfaction and turnover intentions using cross-cultural training, mentoring, peer support and culture. Bozionelos found that experience was the most significant influence on job satisfaction and turnover intentions while cultural training had no effect on job satisfaction. Expatriate nurses' experience and peer support, where provided, resulted into higher job satisfaction for expatriates of Arab origin. However, Ghafoor, Khan, Idrees, Javed and Ahmed (2011) interviewed an expatriate worker in a case study in Pakistan, providing a model for training to facilitate integration of expatriates into the workforce to reduce expatriate failure and high turnover. Working with 113 hospital radiologists in the Eastern province of Saudi Arabia, Al-Faify (2013) studied occupational stress and job satisfaction in acute environments. The results from this research showed significant correlation between occupational stress factors and overall satisfaction, and satisfaction with the working environment.

While employee responses to workplace influences and activities are frequently referred to in terms that place employees in a negative position in the organisation, job satisfaction takes the glass half full approach of seeking those factors that cause positive reactions. In this section, similar factors were examined as those of job stress, burnout and intention to leave with the aim of identifying non-stressful situations or coping strategies in the event of stress. Thus, working conditions including adequate resources, pay and performance rewards were considered, career development, professional respect and status in the organisation, and support from supervisors and team members. Judge et al.'s (2001) model of job satisfaction factors may have changed in emphasis over time; for example, 'norms' have evolved into another classification of organisational environment. However, the nature of job satisfaction requires further study in understanding nurses' experiences in Saudi hospitals.

### **3.5 Intention to Leave Theory and Practice**

As a research topic, intention to leave is of interest to many researchers in psychology, management and workplace environments (Al-Dossary, Vail, & Macfarlane, 2012; Almalki, FitzGerald, & Clark, 2012; Simon, Müller & Hasselhorn, 2010). Intention to leave is influenced by a substantial number of identified factors, such as co-workers' job embedding and job search behaviours (Felps et al., 2009). This section will first present background literature on the concept of intention to leave, and then review contemporary studies.

For the purposes of this study, a worker's intention to leave can be defined as contemplating quitting his or her current job (Purani & Sahadev, 2008). Researchers noted that intentions of workers indicated their subsequent behaviour in regards to that intention (Applebaum et al., 2010).



Intention to leave was first described by psychological researchers Porter and Steers (1973) who suggested that ‘intention to leave’ was the next logical step after experienced workplace dissatisfaction. Debate was generated on the nature of intention to leave and factors that may trigger it. For example, in a meta-study of literature concerning turnover intention in the preceding decade, Mobley (1977) noted that the relationship between job satisfaction and turnover, although not strong, was significant and consistent. Mobley identified intermediate linkages in the satisfaction–turnover relationship. Subsequently, there were various studies investigating phenomena that may contribute to intention to leave. Lee and Mowday (1987) identified three key factors (met expectations, job values and job attitudes) that were related to intention to leave the organisation for a research cohort of 445 financial workers, although departure was not definitively related to the variables under investigation. Other factors studied were work and family tensions (Netemeyer et al., 1996) and workplace bullying (Quine, 1999). In a meta-analysis study, Barak, Nissly, and Levin (2001) began to formulate the contemporary literature by studying the relationships among employee demographics, perceptions and workplace environment and either turnover or intention to leave. They found that burnout, job dissatisfaction, availability of employment alternatives, low organisational and professional commitment, stress and lack of social support are the strongest predictors of turnover or intention to leave (Barak et al. 2001).

However, Barak et al. (2001) found that factors leading to intention to leave were not personal or related to the family responsibilities; they were organisational or job-based and therefore management was capable of addressing issues in the workplace to prevent turnover. Many empirical studies followed, which studied occupations such as nurses (Kovner et al., 2009) and teachers (Goddard & Goddard, 2006), and location-based factors, such as Abualrub (2010) in Jordan, and Al-Dossary et al. (2012) in Saudi Arabia. The majority of

empirical findings at the time were captured by Deery (2008) who produced this list of variables from a meta-study:

- flexible working hours, team-managed rosters
- no out-of-hours commitments such as training
- adequate breaks during shift
- fully resourced work stations
- improved leave arrangements such as carer's and sabbatical leave, staff rewards and performance recognition.

### **3.5.1 Nurses' intention to leave the profession.**

Flinkman, Leino-Kilpi and Salanterä (2010) conducted a meta-study of nurses' intention to leave the profession and found that nurses cited reasons such as family responsibilities and work pressures in their decision making. The connection between intention and quitting was not straightforward, for example, in a quantitative survey study of young Finnish nurses, Flinkman, Laine, Leino-Kilpi, Hasselhorn and Salanterä (2008) found that a quarter of young registered nurses (N=187) thought of giving up nursing. They reported heavy workloads, lack of professional commitment, low job satisfaction and career-based issues of training and development. Personal issues included burnout, and work and family conflict. Further 'industrial' issues included dissatisfaction with the professions' salary levels, shift work/working hours and uncertain work status. A limitation of these studies is that they are time-specific. While the nurses considered leaving, there is no means other than statistical of connecting a specific issue with an individual who considered leaving; thus, participants may have communicated their frustration over each element of the job: professionalism, employment conditions, working conditions and family, there lacks a

cause and effect relationship. While nurses were dissatisfied with aspects of all variables, there was no means of following through whether their intentions were put into practice.

In a European longitudinal study on nurses exiting their profession, Dichter, Galatsch, and Schmidt (2010) reported that health was identified as a predictor for intention to leave the profession, and the associated psychosocial factors on health of shift work was also identified. Of interest to this research, Dichter et al. also found that cultural, socioeconomic and organisational factors influenced decisions. The nurses' early exit study was conducted with 56,000 nurses from 11 European countries from February 2002 to June 2005 in the first phase of NEXT, where it was found that, as noted, health was identified as a predictor for the intention to leave the profession and health was affected by psychosocial factors on health, including shift work. In the second phase to 2011, intention to leave was again cited as a focus; however, this was apparently abandoned. The longitudinal study of nurses exiting the profession was inconclusive, inasmuch as health issues could be associated with a temporary condition, age-related, or a pseudonym for leaving the workforce.

According to Takase, Maude and Manias (2006), nurses experience role discrepancy between their work expectations and the working environment. This may lead to an intention to leave. Takase et al. (2006) studied 346 Australian nurses on this aspect of role ambiguity. The authors found that nurses' intention to leave was related to their decision-making capacity in hospital policies and in patient education. Further, intention to leave increased with a tendency to withdraw in their nursing roles. In this study, Takase et al. described a situation that may arguably be described as rejection of nurses' professionalism by the hospital administrators and other health professionals. Nurses who have high qualifications and experience may consider their ability to respond to patients' needs is not given sufficient weight by the other professionals. If this occurred, nurses may intend to leave patient nursing if they cannot exercise discretion in nursing practice, taking up other aspects of nursing:

workplace health, primary care in clinics and physician's surgeries, medical laboratories, or academia or training.

In the United States, Black, Spetz, and Harrington (2010) studied intention to leave the profession, finding that 4.2% of the 2.9 million registered nurses were working in non-nursing employment and 12.1% were not working at all. Nurses not working cited retirement (45%) and home and family obligations (38%) as the reason for not participating in the labour market, while stressful work environments, physical demands, inadequate staffing and scheduling were cited for leaving the profession. Nurses working outside their profession were employed with health services, pharmaceutical sales, management and as academics. Following the Finnish example of Flinkman et al. (2008), Black et al. (2010) found that, statistically, 91% of nurses under the age of 30 years were working outside of nursing due to concerns with the nursing workplace. Another US study by Stone et al. (2006) found 17% of 2323 nurses from 66 hospitals indicated intending to leave nursing. Of the 17%, half (N=198) reported that the reason was due to working conditions. Intention to leave the profession or the employer was the focus of Simon et al.'s (2010) secondary analysis of 2,119 nurses from a cross-national 2003 study that found a corollary between profession and employer of age, professional commitment and job satisfaction. Leaving the profession was associated with family issues; and leaving the employer with supervisors and management. Using ageing panel data in the Simon et al. study arguably introduces risk in an inability to include changing nursing practices relating to patient-centric professional attention. A renewed focus on patients would arguably bring in the nurse as the primary carer for the patient (following Reuben & Tinetti, 2012). Nurses report role conflict, as Takase et al. (2006) found; a goal-oriented hospital policy would possibly resolve role conflicts and allow nurses to exercise greater control over their environments. These policies are emerging in progressive hospitals,

according to Reuben and Tinetti (2012); thus, evolving practices driven by structural and technological change could resolve or negate items in older measures.

The literature indicates that nurses left their profession if they were younger, disillusioned, or for family reasons; otherwise for reasons of health and age, and the stress associated with workplace conditions of overwork, shifts, pay, or wanting a career change. These factors include cognitive, demographic, workplace-related and career-related issues. There is substantial data from these findings; for the purposes of this study, the cause and effect of context and thus relevance to this study is unavailable.

### **3.5.2 Nurses' intention to leave the organisation.**

Nurses' intention to leave the organisation is the subject of wide research. In a meta-study, Deery (2008) noted that turnover and intention to leave studies focused on many factors such as attitudes towards the job, the working environment, personal attributes such as positive and negative affectivity, and, finally, strategies to alleviate high turnover rates.

High nursing turnover was found to be a problem in Taiwan. Chen (2013) noted that nurse turnover was leading to increases in the cost of long-term care and undermining care quality. Without pay increases, job redesign was proposed to improve nurses' work environments, addressing working conditions issues such as working conditions and shifts. In Taiwan, Kuo, Lin and Li (2013) used a cross-sectional survey and a correlation design to test the mediating effects of job satisfaction on long-term care nurses. Kuo et al. found a significant inverse relationship between work stress and job satisfaction, which led to turnover among nurses. Their study showed that job satisfaction significantly mediated the relationship between work stress and turnover intention; thus, higher job satisfaction decreased work stress and turnover intention. Using a descriptive cross-sectional survey design, 1,283 nurses at seven hospitals in Taiwan were studied by Lee et al. (2013). The

researchers advocated focused and individual interventions for Taiwanese public nurses that included matters such as job security, professional recognition, varying work arrangements and workloads, family leave, improved staff ratios to patients and a focus on patient care. The range of organisational matters identified by Lee et al. pointed to management issues within the hospitals and, arguably, the need for attention to the culture of the working environment at affected hospitals. Working conditions could be alleviated by the nurses' industrial action regarding collective working conditions; however, Taiwan has a robust trade union structure that includes the Taiwan Nurse Union (Chiu-ying et al., 2013). Chiu-ying et al. recommended management flexibility in addressing issues of individuals, although this could be divisive in terms of workplace equity.

Support at work was an indicator of intention to leave in Canada (Zeytinoglu, Denton & Plenderleith, 2011), where it was found in sample of 1,396 nurses employed in three teaching hospitals in Southern Ontario that part-time nurses were less inclined to consider leaving their employer than full-time nurses. In a panel study concerning the European longitudinal study of nurses' intention to quit (NEXT, referred to in the previous section), van der Heijden, Kümmerling, van Dam, van der Schoot, Estry-Béhar and Hasselhorn (2010) found that supervisor support negatively affected intention to leave the profession more so than job satisfaction and age. As discussed, panel data can reflect past conditions and significant variables can emerge and be subsumed over time. Given these longitudinal issues, the ageing of the workforce emerged as a factor; thus, the researchers found a significant negative relationship between age and social support from team members.

In a cross-European-Chinese study, Li et al. (2013) found that reward for superior performance was part of the psychosocial work environment that needed to be addressed. Some 7,990 registered female nurses working in hospitals in eight countries (Germany, Italy, France, the Netherlands, Belgium, Poland, Slovakia and China) were included in the one-year

prospective study. In a robust research design, multilevel logistic regression modelling was used to analyse data from a questionnaire that included intention to leave the nursing profession. Again in Taiwan, Chiu, Chung, Wu and Ho (2009) studied turnover intention based on the job strain model using 373 hospital clinical nurses in northern, central and southern Taiwan. Chiu et al. found that in high job demand and low-control work situations, nurses had the highest proportion of intention to leave, although they posited that this may be decreased by job-related social support. Other research by Sawatzky and Enns (2012) concerned 261 emergency Canadian nurses, and 26% of the sample reported that they intended to leave employment within a year. Sawatzky and Enns found that engagement was the key to intention to leave, and was also linked to job satisfaction and burnout. Factors influencing engagement were professional practice, management, resources and shift work.

In summary, studies on turnover and intention to leave the employer, by definition, are focused on the characteristics of the hospital workplace and individual circumstances of the nurses. Researchers tend to select healthcare workplaces for study that are particularly susceptible to stress, such as the acute response areas of major hospitals, or the debilitating environments of long-term care of the palliative centres. However, the ongoing response to patients by individual nurses in these situations could be affected by a nurse's career change, or by a management strategy of rotating nurses through areas of a hospital. As the majority of studies are time specific, this research limitation may mask the duration of individuals' exposure as nurses to a particular source of stress. Studies that follow individuals through a nursing career amount to case studies that cannot readily be generalised to the nursing profession.

### 3.5.3 Intention to leave literature

As intention to leave is the dependent variable in this study, recent studies on nurses' intention to leave the organisation is shown in Table 3.2.

Table 3.2  
*Literature survey of nurses' intention to leave*

Context	Reference
Saudi Arabia	Abualrub & Alghamdi, 2012
	Al-Ahmadi, 2013
	Alasmari & Douglas, 2012
	Almalki, FitzGerald & Clark, 2012
	Mahran & Al-Nagshabandi, 2012
	Zaghloul, Al-Hussaini & Al-Bassam, 2008
	Zakari, Al Khamis & Hamadi, 2010
Jordan	Abualrub & Al-Zaru, 2008
	Raddaha, Alasad, Albikawi, Batarseh, Realat, Saleh & Froelicher, 2012
Ireland	McCarthy, Tyrell & Lehane, 2007
Australia	Takase, Maude & Manias, 2006
	Walker & Campbell, 2013
China	Chan, Luk, Leong, Yeung & Van, 2009
	Chiu, Chung, Wu & Ho, 2009
	Liu, You, Chen, Hao, Zhu, Zhang & Aiken, 2012
	Wang, Tao, Ellenbecker & Liu, 2012
Finland	Flinkman, Laine, Leino-Kilpi, Hasselhorn & Salanterä, 2008
	Flinkman, Leino - Kilpi & Salanterä, 2010
Indonesia	Guntur, Haerani & Hasan, 2012
Canada	Jourdain & Chênevert, 2010
	Sawatzky & Enns, 2012
	Zeytinoglu, Denton & Plenderleith, 2011
Taiwan	Kuo, Lin & Li, 2013
	Lee, Dai, Park, & McCreary, 2013
United States	(Burnout) Leiter & Maslach, 2009
	(Environmental factors) Applebaum et al., 2010
	(Organisational climate) Stone, Larson, Mooney-Kane, Smolowitz, Lin & Dick, 2006
United Kingdom	Simon, Müller & Hasselhorn, 2010



Korea	Yoon & Kim, 2010
Multinational	Li, Shang, Galatsch, Siegrist, Müller & Hasselhorn, 2013 Van der Heijden, Kümmerling, van Dam, van der Schoot, Estry-Béhar & Hasselhorn, 2010

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### 3.5.4 Intention to leave in Middle Eastern literature.

Reflecting the global experience, Middle Eastern and North African countries also encounter difficulties attracting female professionals in a deeply religious environment. A lack of adequately trained nurses affects Lebanese nurses' views on the pressures of their jobs, according to El-Jardali et al. (2009):

[In the study] 1,793 nurses employed in 69 hospitals were surveyed. Questions included ... intent to leave ... Univariate descriptive statistics were conducted on sample's demographic characteristics including gender, age, marital status and educational level. Bivariate associations between intent to leave and demographic characteristics were tested using Pearson Chi-square. Differences in satisfaction scores between nurses with and without intent to leave were tested using t-test and ANOVA f-test. A multinomial logistic regression model was created to predict intent to leave the hospital and intent to leave the country (p. 1).

The study by El-Jardali et al. (2009) established that loss of a registered nurse increases the risk of extended hospitalisation by approximately 80% and the risk of infection by an approximately 20%. El-Jardali et al. (2009) stated that increased nurse turnover may increase the patient to nurse ratio, resulting in increased nursing workload unless further recruitment was possible. Highly trained and experienced nurses may influence lower patient mortality and increase failure to rescue. More recently, in a recent cross-sectional study on intention to stay in difficult to staff hospitals in four Middle Eastern countries, El-Jardali et al. (2013) found contextual differences positively affected intention to stay: marriage in

Lebanon and Jordan; years of experience in Lebanon and Yemen; job satisfaction in all study countries.

In Saudi Arabia, Abualrub and Alghamdi (2012) found from their descriptive correlation study (N=308) that supervisor support moderated Saudi nurses' intention to leave, and this was also the case in Kuwaiti hospitals (Alotaibi, 2008). In the Saudi context, development of quality relationships among expatriate and national nurses was hindered by difference in languages and dialects (Al-Ahmadi, 2009). These studies highlight the difficulties in maintaining professional and dedicated nurses in Saudi Arabia, where the expatriate nursing tenure is generally the two years allocated by work permits and the employment contract. For Saudi women, the Islamic tenet of placing their family responsibilities above career influences the time they spend on career. For Saudi men, a nursing career is a service duty that has little social status (Ramady, 2013).

Further, loss of qualified nurses results in changes in nurse behaviours and attitudes towards their jobs, resulting to low job satisfaction, low productivity and increased turnover (Almalki et al., 2012). Almalki et al. used Brooks' survey of Quality of Nursing Work Life and the Anticipated Turnover Scale to study all of the public health centre nurses in the Jazan region, Saudi Arabia, where 134 centres employed 585 Saudi and non-Saudi nurses. Nurse turnover increases the cost of operating healthcare organisations as resources are directed towards minimising or curbing high nurse turnover levels. Almalki et al. (2012) posit that the chronic nurse shortage in Saudi Arabia is due to high levels of turnover. With a high level of expatriate nurses, the work permit system reduces the incentive for trained nurses to stay in the conservative Kingdom. Tharenou and Caulfield (2010) attribute voluntary turnover and intention to leave among Australian expatriates to poor cultural adjustment and job dissatisfaction. Inability to adjust to host country conditions and desire to return home is arguably generalisable among expatriates, particularly if their profession is readily

employable. Thus, those seeking income will be attracted by higher salary packages and may leave employers who have inadequate working conditions; while those seeking to broaden their work experience will soon move on. Transience is common in the nursing profession, particularly among young expatriates. Doherty (2013) conducted a literature review of expatriates for 15 years to 2011, using thematic analysis to identify the main trends. Doherty pointed out that expatriates in the 'global talent flow' are either self-initiated contractors or fulfilling career objectives through their employer. This supports the notion of transience for Saudi Arabian hospitals, whether employed direct by the Ministry of Health, or indirectly through public–private service arrangements with local recruitment agencies or international providers.

Intention to leave among nurses in Saudi Arabia may fall into two categories, that is, working environment factors and demographic characteristics. Working environment factors include job design, flexible working conditions and working environment, while demographic characteristics include gender, age, family status, level of education and years of experience in nursing (Almalki et al., 2012). Work–life balance is an important influence on nurses' intention to leave due to family needs and working hours and shifts. As noted, intention to leave is also influenced by demographic features such as age, marital status, level of education, years of experience and tenure of services as leading to turnover among nurses (Alotaibi, 2008). Using a sample of 116 medical-surgical nurses working in acute-care settings in a descriptive, correlational design, Applebaum et al. (2010) established that work–life balance affects turnover intentions due to conflict between personal and work demands. In Ireland, McCarthy, Tyrell and Lehane (2007) used a cross-sectional quantitative design to survey a sample of 352 registered nurses at 10 hospital sites. McCarthy et al. found that nurses' intention to leave employment was higher among nurses with family responsibilities; although Almalki et al. (2012) argued that family responsibilities enhanced the intention to

stay in employment among Saudi nurses. Further, Almalki et al. found that 83% of nurses in Saudi Arabia were critical of a lack of flexibility in work times, job design and working environment; 78% were critical of workloads, and 65% were critical of supervision and unwarranted monitoring of their work. Forty per cent of the nurses intended to leave their current employer; although this may reflect the end of contractual obligations.

### **3.6 Supporting Literature**

Themes in the empirical literature other than burnout, job stress and job satisfaction that could impinge on nurse self-efficacy include professional capability, organisational culture, workloads, communication, disengagement and status. These are discussed in turn.

#### **3.6.1 Nurse education.**

Until recently, nurses in Saudi Arabia were educated to diploma level as well as a university education, leaving a large number of nurses underqualified (Almalki et al., 2011). Contributing to issues around undereducated nurses, Thompson et al. (2013) expressed concern for the quality of nurse educators, noting the rapid increases of health worker numbers, job skills proliferation through technology and new patient protocols, and the effect on the universities that supply healthcare educators. Thompson et al. called for action to avert failure of healthcare delivery systems through inadequate education of next-generation nurses. Noted in the previous chapter, Al Mahmoud et al. (2012) queried the Saudi commitment to undertake several years of nursing education, while more recently, Jradi, Zaidan and Shehri (2013) questioned the role of nurse education in the broad category of Saudi public health. Fielden (2012) reported on the development of a graduate development framework for clinical competencies and safe practice in a Saudi hospital. This indicates that the Department of Health is investing considerable resources in upgrading new graduate competencies and raising nursing standards in their hospitals. Yet Aboshaiqah (2011) found

that continuing professional education by underqualified Saudi nurses was hampered by finance and scheduling; nurses needed to be paid for their time off to gain further qualifications.

### **3.6.2 Organisational culture.**

The organisational culture of Saudi hospitals reflects society's traditionalist and Islamic views, particularly regarding gender interaction. The majority of researchers comment on the gender divisions within the health industry and the use of expatriate women professionals in male wards (Al Ahmadi, 2012; Al-Turki et al., 2010) Karout et al. (2013) explored perceptions from private Saudi patients about their healthcare experiences. The findings were grouped as follows: religion, language, gender, values and beliefs and nationality. These dimensions affected maternity services provided by nurses, and Karout et al. emphasised the need for cultural training for expatriate nurses.

Nurse workloads are also frequently mentioned in the Saudi literature, generally in relation to stress (Alasmari & Douglas, 2012; Almalki et al., 2012). However, in a recent survey, Aboshaiqah (2013, Section 2.3.1) found that nurses in a major Saudi hospital reported, inter alia, acceptable levels of decision making, leadership and workloads. For Saudi women, work and family issues rank highly, as does the expense of car hire or availability of a male relative to commute to work, and being away from home for night shifts. As the central focus of Arab society is family, working women's family care responsibilities are assumed to override other considerations (Arab culture) and are thus rarely mentioned in the literature, the single reference to work and family for Saudi nurses being Tumulty (2001).

### **3.6.3 English fluency.**

Communication is of considerable importance in Saudi Arabia, given that the large expatriate workforce may not have Arabic fluency and the Saudi workforce may be obliged to communicate in English. Especially in hospitals, quality of care is severely affected if nurses are unable to communicate effectively with other professionals, their peers, or the patients (Aldossary, 2013). Suliman and Tadros (2011) noted that nurse students must now be fluent in English, citing that government policy stated that all Saudis should learn English as well as the dominant Arabic dialect. Almutairi and McCarthy (2012) also noted that interpreters in Saudi hospitals are required to communicate between a patient and the healthcare provider and that communication was an obstacle to healthcare provision for Saudis. In a recent study of patient satisfaction in a regional Saudi hospital, Atallah, Hamdan-Mansour, Al-Sayed and Aboshaiqah (2013) reported that the highest level of dissatisfaction from patients (56%) was for language issues and communication:

Nursing leaders and health-care administrators need to maintain quality nursing care and develop strategies for improving nursing care, (emphasising) language as (a) barrier and (building) strategies (for) information dissemination. (Atallah et al. 2013, p. 1)

### **3.6.4 Professional recognition.**

Saudis have not yet embraced the notion of nursing as a satisfying career (Alotaibi, 2008). El-Jardali et al. (2009) broadly attributed nurse turnover to work stress, low remuneration, desire for professional development, lack of recognition and respect by the society, dissatisfaction with supervisors, inflexible working hours, desire to work in different fields, high workload and family reasons. Poor retention strategies adopted by health organisations further influence turnover levels among nurses, and nursing staff characterised

good working conditions as high job security and scheduling flexibility (El-Jardali et al., 2009; Raddaha et al., 2012).

Another common element in Saudi nurse literature is the lack of status for Saudis, men and women, in service work, that is, serving the public directly (Almalki et al. 2012). Abualrub, El-Jardali, Jamal, Iblasi and Murray (2012) studied Arab nurses in Jordan, finding that incentives were necessary to overcome perceptions of difficult work that was not viewed as a desirable career for Arabs. Abualrub et al. recommended the establishment of career paths, which are not evident in Middle Eastern countries with high rates of expatriate workers, improved financial incentives, professional recognition and better access to continuing training should become mainstream to attract young Saudis and enable the country to become more self-sufficient in healthcare.

Nurses in Saudi Arabia have a low professional status due to an inadequate working environment, lack of respect among health professionals and the threat of mixed gender environments (Mahran & Al-Nagshbandi, 2012). Mahran and Nagshbandi used a sample of 100 Saudi women students at King Abdul-Aziz University and also surveyed 90 of their parents in a descriptive-correlational study. They found that social image contributed to the severe shortage of local nurses within the Saudi healthcare system. Dependency on foreign nurses in the traditional Islamic society, especially in provincial areas, led to concerns of moral laxity, and these stereotypes damaged the nursing image and discouraged nursing as a career choice. A majority of the female students said that they initially had no intention of gaining a nursing qualification; however, they selected nursing as an alternative to qualifying for medicine.

Nevertheless, social change is occurring in the Kingdom, and women's participation in the labour force is not viewed as negatively as a decade ago (Al Rasheed, 2013). The factors driving the positive changes are working conditions, clinical training and relationships

with faculty members and peers (Mahran & Al-Nagshbandi, 2012). Arguably, intention to leave an employer has less effect on society if the Saudi nurse gains promotion to a better job; while leaving the profession altogether risks mild improvements of women's labour market participation and wastes the education the individuals received. Another issue is remoteness, and a recent cross-sectional study on remote hospitals in four Middle Eastern countries, Qatar, Jordan, Yemen and Lebanon by El-Jardali et al. (2013) found that contextual elements such as marriage, commuting distance and years of experience contributed to intention to stay with the employer in the three countries with locally trained nurses (Qatar recruits externally). These are aspects that relate to women working in nursing in Ha'il and, to a certain extent, to men.

### **3.6.5 Quality of working environment.**

Quality of the working environment, according to Almalki et al. (2012), leads to an improvement of the working experience that can result in improved productivity. An aspect of a quality job experience includes work-life balance for parents, where shiftwork intrudes on the family routines of school, meals and bedtimes. In an Iranian survey of 800 highly educated women, Mehdizadeh (2011) noted that issues of work-family balance did not have the same research interest in developing countries although with increasing women's labour force participation, work-family tensions are growing in these countries as well. Mehdizadeh stated that Iranian women's labour force participation rate was a mere 12.5% in 2006, compared to that for Saudi women (16.4%) (Al-Rasheed, 2013). Al-Malki et al. (2012) also highlighted the need for better childcare facilities given nurses' shiftwork, advocating against the practice of rotating schedules. While these conditions may affect individual nurses, shiftwork and childcare are subject to employment contracts, and these could be negotiated at the time of contract review. Saudi Arabia has no trade unions and few mandated working conditions; the remuneration package and work responsibilities are negotiated for the length



of the contract. Lack of decision-making status also influences the quality of the nurses' work in Saudi Arabia, where nurses can be subservient to physicians and are not viewed as independent practitioners in conjunction with other members of the interdisciplinary healthcare team (Lovering, 2008). Zaghoul, Al-Hussaini and Al-Bassam (2008) used a cross-sectional descriptive design to study 499 Saudi nurses' intention to leave, finding that nurses experienced low respect levels from the physicians coupled with poor communication, interactions, appreciation and support from the profession. Arguably, this inhibits the interactions between nurses and physicians as the physicians do not value the input of nurses during the healthcare provision process, thus alienating the nurses.

Job design influences the turnover intentions in Saudi Arabia and the Middle Eastern region. In a quantitative study of Lebanese nurses (N=176), El-Jardali et al. (2009) established that dissatisfaction with scheduling increased turnover intentions among nurses. This was confirmed by Ma et al.'s (2009) Taiwanese study, where nurses working in the evening and night shifts exhibited higher turnover intentions.

A cross-sectional design including a self-administered questionnaire was used with a purposive sample of 180 critical care nurses in three Jordanian hospitals during 2007 (Raddaha et al., 2012). The authors used descriptive and inferential statistics, ANOVA, correlation, regression and post-hoc tests to analyse their data. The findings were that nurses expressed satisfaction with their jobs when they had quality relationships with co-workers, immediate supervisors, nursing peers and physicians; together with a higher level of involvement in decision making. Raddaha et al. argued that hospitals with lower turnover of nurses showed evidence of decreased mortality rates, lower length of hospital stay and less safety issues such as needle stick injuries. This study further established positive correlation between strenuous and stressful work conditions with both actual turnover and the intention to quit among employees (Raddaha et al., 2012). However, Applebaum et al. (2010) noted

high workloads resulted in increased job stress which further increases in turnover among nurses. Zakari et al. (2010) placed conflict experienced by Saudi nurses as either arising from competing demands on the individual or conflict with supervisors, or as a result of miscommunication and difference in values between nurses, or in the broader sense of nursing units competing for resources. Job conflict resulted from work overload, role ambiguity and non-nursing tasks or where nursing duties expanded to those of other health professionals. An example is extra duties in training and supervising new staff nurses (Almalki et al., 2012). Zakari et al. (2010) conducted a cross-sectional design with a sample of 346 nurse managers and care nurses in three health-care sectors. The data from questionnaires was designed to provide information about conflict levels and professionalism using the Perceived Conflict Scale and the Valiga Concept of Nursing Scale, which were not contemplated for this study. Interpersonal conflict was encountered by 82% of nurses, while 38% experienced conflict in an individual capacity.

In exploring the perception of conflict among Iranian nurses, Nayeri and Negarandeh (2009) used a qualitative research approach and a purposive sample of 30 hospital nurses and nurse managers in interviews. Data were analysed through a content analysis method. Nayeri and Negarandeh established that organisational hierarchy and nursing tasks had a negative effect on nursing professional practices due to increased fragmentation, stress and burnout. In support, Zakari et al. (2010) argued that nurses thus experience dissatisfaction, frustration and demoralisation. Lack of resources contribute to the problem in the working environment and contribute to intention to leave (Almalki et al., 2012; Zakari et al., 2010).

### **3.7 Chapter Summary**

The aim of the research is to identify variables that affect retention; variables such as job stress, burnout, job satisfaction and intention to leave. These factors are well studied in the literature, and few papers nominate a single item, preferring a matrix of causes for nurses'

intention to leave their jobs or the profession. There was no clear cut evidence from the examples of longitudinal studies held in both Europe or China, and evidence from single or multiple empirical studies produced results that are specific to jurisdictions (with or without trade unions), economies (developing or developed) and used different variables as dependent or independent. The evidence from the Middle Eastern countries tended towards positive results from the data analyses.

The chapter presented a review of existing literature on job stress, burnout, job satisfaction and intention to leave. The literature shows that as the Saudi health sector continues to evolve, it is experiencing challenges, especially a shortage of Saudi nationals who are willing to embark on a nursing career. This is further affected by gender segregation, so that both men and women nurses are required, although there is not an issue with non-national women working in men's wards; low salaries; and the Saudi distaste for taking service positions.

The review showed that researchers over time adopted an array of terms for aspects of the workplace experience. There is a case to be made that some terms are repetitive; that workplace characteristics are differently treated by jurisdictions (legislation); and that participant responses in some studies may very well be a wish list of conditions and rewards. Thus, there are a number of research disciplines effectively studying the same data from their different perspectives, and the findings of each may therefore be incompatible in socio-economic reality. Thus, a psychological model for a caring and supportive workplace may be unrealistic in terms of patient-nurse ratios and physical resources, particularly in remote desert towns.

Nevertheless, there are issues with a high non-national health workforce, which leads to discontinuity due to management turnover, and thus a lack of responsibility in achieving even mid-term objectives for nurse reform. The problem may well be political, given that

Saudi Arabia has an absolute ruler and thus a lengthy decision-making process. Nurse resources stem from government decision makers as well as hospital administration and lack of social status. The discussion next moves to the theoretical framework.

## **Chapter Four: Theoretical Framework**

The theoretical framework described in this chapter uses theories of job stress, burnout and job satisfaction as predictors for intention to leave. While measures from these models are used in the primary research to collect and analyse data, the literature regarding psychology, sociology, management and the health sciences provide optional theory structures that could be used to support or supplant those selected. In this chapter, the theory relating to the four variables is presented. The research is placed within the cultural, economic, religious, legal and social environment of Saudi Arabia, and the location of the research is in a regional setting. Thus, the theoretical framework should prove a simple and robust predictor of Ha'il's nurses' intention to remain in their jobs.

### **4.1 Literature Search**

A literature search of the psychological, social, medical databases and search engines based on the concepts, context and keywords relevant to the research topic produced a significant list that could then be refined and ordered to achieve two aims. The first was to understand the extent of each theory that is, job stress, burnout, job satisfaction and intention to leave and the second was to select measures (instruments) and analysis methods that were appropriate to the research questions. This section contains a discussion of the theoretical and empirical literature on the topic, while the selection of measures for the constructs is presented in the methodology section.

#### **4.1.1 Job stress theory.**

The Person–Environment (PE) Fit Theory developed by Lewis in 1935 stems from person–environment interactions (Brewer & Macmahan, 2004; Edwards & Cooper, 1990). The PE Fit Theory is the most widely accepted framework for conducting research on job stress (Cherniss, 1980; Jackson & Maslach, 1982; Latack, 1986). The overall fundamental

premise of fit relates that outcomes such as stress are a function of interactions between both individual and their work environment.

The PE Fit Theory relates that the interaction between an individual and the work environment determines whether a situation is stressful for the individual (Jex, 1998; Keller, 2001). Stress can also occur if the individual identifies a mismatch between the reality of the work environment (objective) and the individual's perception of the work environment (subjective) (Kristof-Brown & Jansen, 2007). Lack of fit can also occur when the demands placed on an individual employee conflict with his or her ability to complete the demands, which in turn develops into job stress. The PE Fit Theory is a multidimensional construct composed of an individual fit with one's vocation, organisation, group and job (Kristof-Brown & Jansen, 2007). The multidimensional aspect of the PE Fit Theory allows the theory to be a better predictor for broader individual outcomes such as stress, withdrawal or environmental adjustment, which can eventually lead to the burnout of an individual in the work environment.

#### **4.1.2 Burnout theory.**

The literature concerning burnout in nursing is extensive. This section will focus on the literature that is relevant to nursing in the Middle East. The burnout theory was developed by Freudenberg (1974) and defined as a state of fatigue by professionals whose expectations were not met. Maslach (1978) extended this to frustrations generated by workers who must constantly deal with clients' problems, which leads to emotional exhaustion. The Maslach Burnout Inventory, adjusted over time, assesses emotional exhaustion regarding job demands, depersonalisation (i.e. lack of empathy) and personal accomplishment (Maslach, Jackson & Leiter, 1996).

Maslach and Jackson (1981) introduced their theory of burnout based on their observations of individual human service workers and their emotions. The theory identifies three major constructs: (1) emotional exhaustion, (2) depersonalisation and (3) reduced personal accomplishment. Maslach et al. (1981) proposed that emotional exhaustion identifies workers who suffer from acute or chronic burnout. Emotional exhaustion is 'representative of the basic individual stress dimension of burnout referring to feelings of being emotional drained' (Maslach et al., 2001, p. 399). The interpersonal dimension of burnout is representative of the construct depersonalisation, which refers to a negative detachment to the work environment. Reduced personal accomplishment 'represents the self-evaluation dimension of burnout, referring to feelings of incompetence and a lack of achievement and productivity at work' (Maslach et al., 2001, p. 399).

The three constructs of burnout refer to an individual experiencing burnout in terms of stress, interpersonal factors and self-evaluation. Emotional exhaustion refers to an individual being depleted of his or her emotional resources. This construct is regarded as the main stress component of burnout (Maslach et al., 2001). Depersonalisation refers to negative detached responses to fellow employees. This construct is representative of burnout's interpersonal component (Maslach et al., 2001). Finally, reduced personal accomplishment relates to an individual's decline in competitive productivity and represents an individual's self-evaluation component of burnout (Maslach, 2001).

While items from the Maslach model predominate in the burnout literature, other researchers have studied burnout as the independent variable. Nahrgang et al. (2011) considered the extrinsic factors of job demands and resources on burnout and organisational engagement, finding a relationship between increased risk and burnout.

Burnout was the subject of a number of Saudi and other Middle Eastern studies. Research findings by Al-Turki et al. (2010) and Mitchell (2009) established emotional

exhaustion and depersonalisation among Saudi nurses, predominantly non-nationals. Management practices such as discrimination were identified by Al-Zahrani (2011) as factors in burnout among Saudi private hospitals' nurses. Fatigue was influential in burnout for Jordanian psychiatric nurses (Hamaideh, 2011) and Iranian nurses (Keshvari, Mohammadi, Boroujeni & Farajzadegan, 2012). The Maslach burnout theory is socially significant because it addresses essential issues about workplace burnout in the discipline of human service workers such as social workers, teachers, police officers, nurses and doctors. It is also useful in management relationships with client interactions and nursing interactions, as well as interventions when emotional breakdowns and/or burnouts are paramount. A good balance between simplicity and complexity contributes to this theory's usefulness.

#### **4.1.3 Job satisfaction theory.**

Among the early theorists whose work influenced subsequent job satisfaction research was Maslow's Hierarchy of Needs (Petty et al., 1984). Empirical evidence has not always supported the validity of Maslow's theory of a Hierarchy of Needs; however, recent studies have used Maslow's theory as a framework to measure or explain factors found in the exploration of job satisfaction (Lambrou, Kontodimopoulos & Niakas, 2010).

The theory assumes that unsatisfied needs motivate people to find a way to gain satisfaction. Maslow (1954) argued that when a need is substantially satisfied, it becomes less important to an individual, allowing that individual to progress through the hierarchy. For this study, job satisfaction has been defined as a multidimensional affective and cognitive concept; that is, an interaction of an employee's expectations, values and environment. This definition is congruent with Maslow's (1954) theory, in which a nurse has specific expectations of the organisation she or he works for, as well as expectations of the job. Appraisals of expectations are conducted against the personal and professional values held by the employee.



Two categories of needs are contained within Maslow's (1954) theory: deficiency and growth needs. In the context of the job, deficiency needs include physiological needs (basic working conditions of oxygen, food, water, sleep), safety and security needs (safe work conditions, job security), and a sense of belongingness (interaction with co-workers). Growth needs include self-esteem (job status, recognition) and self-actualisation (challenging work, learning skill development, creativity). Criticism of Maslow's (1954) theory has focused on the progression up the hierarchy and the suggestion that each need must be attained satisfactorily to the individual. However, Maslow (1954) stated that the hierarchy is not rigid and that most individuals are partially satisfied and dissatisfied in all of their basic needs at the same time. Progression up the hierarchy is dependent on what is most important to them at a specific point in time. On this basis, employees who have some job dissatisfaction and feel that they cannot change the situation to ensure that their particular expectations or values are met may consider leaving the job as an alternative to staying (Montana & Charnov, 2008). Alternatively, employees who are generally satisfied with the job but are dissatisfied with a particular aspect of the job may also leave to satisfy that need.

#### **4.1.4 Intention to leave.**

The construct was first described by Porter and Steers (1973) as a factor in workplace dissatisfaction. Intention to leave was then the subject of research scrutiny to identify influencing factors. Initially, early researchers such as Mobley (1977) explored job satisfaction as the primary motivator. Other intrinsic factors included job values (identified by Lee & Mowday, 1987), while extrinsic factors such as balancing work and family (Netemeyer, Boles & McMurrian, 1996), and workplace bullying (Quine, 1999) were explored. Relationships also emerged among the factors identified within intention to leave (Barak et al., 2001).

Researchers in professions and regions also used intention to leave as the dependent variable. In teaching, Goddard and Goddard (2006) aligned burnout with intention to leave, and in nursing, Kovner, Brewer, Greene and Fairchild (2009) in the UK and Flinkman, Laine, Leino-Kilpi, Hasselhorn and Salanterä (2008) in Finland sought factors influencing young nurses leaving the profession. Abualrub (2010) studied nurses' intention to leave in Jordan, and Al-Dossary et al. (2012) studied the relationship between job satisfaction and nurses' intention to leave in a large teaching hospital in Saudi Arabia.

Research interest in nurses' intention to leave the profession intensified during a period of global shortages of nurses early in the twenty-first century which remained for some years. Takase, Maude and Manias (2006) in Australia and Black et al. (2010) in the United States found 'hidden attrition': that is, that nurse professionals were employed as administrators, occupational nurses in firms, educators and in primary healthcare roles. Flinkman et al. (2008) and Black et al. (2010) found that the majority of nurse graduates were not practising their profession as bedside nurses, and that this led to the global shortage of hospital nurses. Again in the United States, Stone et al. (2006) ascertained that working conditions influenced nurses' intention to leave their profession.

An issue that was identified by researchers was that these studies were time-specific and individualistic; the eventual behaviours were not tracked in longitudinal studies. To overcome this, researchers conducted a longitudinal study on European nurses' intentions to leave (NEXT) in two phases: the first in 2002–2005, followed by a full decade from 2002 to 2011. Studying the metadata, Dichter, Galatsch and Schmidt (2010) found that a range of cultural, socioeconomic and organisational factors influenced the nurses' decisions.

Intention to leave the employer, which is the primary interest of this study, has attracted interest in Asia, where there are indications of the high turnover of nurses. In Taiwan, Chen (2013) followed Stone et al. (2006) in citing working conditions as a primary

indicator, while Kuo, Lin and Li (2013) explored intrinsic factors of stress and job satisfaction as independent variables associated with intention to leave. However, Lee, Dai, Park and McCreary (2013) found that Taiwanese nurses reported a range of intrinsic and extrinsic factors that influenced their intention to leave their employer. Chiu-ying, Hsiao and Hsu (2013) recommended management flexibility in addressing the issues of individuals.

In Middle Eastern literature, Lebanese nurses' intention to leave was studied by El-Jardali, Dimassi, Dumit, Jamal and Mouro (2009) in the context of a highly non-national nurse ratio who also intended to leave the country. El-Jardali et al. (2009) cautioned that high nurse turnover compromised quality of care and resulted in work overload for the remaining nurses. Compromised quality of care through failure to retain nurses in Saudi Arabia was confirmed by Almalki, Fitzgerald and Clark (2012). Abualrub and Alghamdi (2012) and Al-Ahmadi (2009) found that supervisor support influenced Saudi nurses' intention to leave, and this was also the case for nurses in Kuwaiti hospitals (Alotaibi, 2008). Ramady (2013) noted the lack of status in poorly paid and subprofessional nursing roles for Saudi women and especially Saudi men. Mahran and Al-Nagshbandi (2012) also reported that Saudi nurses may face professional discrimination by other healthcare professionals. To address discrimination, the Saudi Ministry of Health improved nurse education through university qualifications only.

#### **4.2 Antecedents for Theoretical Model**

As discussed in the literature, researchers employed several approaches in attempting to derive a theory for nurses' intention to leave. Approaches that are relevant to this thesis are presented in this section.

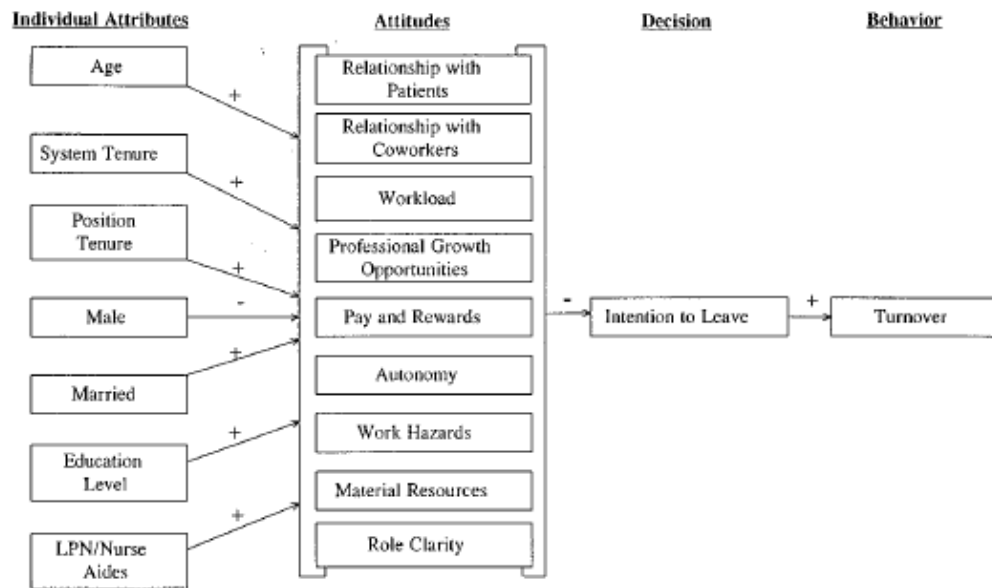
To identify the relationships among intrinsic work motivation, burnout and turnover intentions for Dutch nurses, Janssen, de Jonge, and Bakkar (1999) first categorised the

characteristics of the work setting. They selected the dimensions of the work environment (work tasks, autonomy, supervisors), working conditions (workload, safety), teamwork and conditions of employment (salary, tenure, career). Next, they nominated three theoretically distinct outcome variables that could be considered important organisational issues: work motivation, work-related well-being and turnover. The selected outcomes can be measured with psychological and behavioural measures, and they can be measured subjectively by:

the experience of work and in several psychological outcomes ... Subjective measures are meaningful indicators of the characteristics of a work setting, which can be used for this purpose. (Janssen et al., 1999, pp. 1361–1362)

Janssen et al. rejected the inclusion of physiological or behavioural outcome variables in the framework as ‘untestable’. While their ‘theoretically distinct’ outcome variables differ from the research questions for this study, the structure of their theoretical framework was considered relevant for use in this study and was therefore adopted.

A theoretical approach to distinguish between concepts within the domains of intrinsic organisational commitment and occupational commitment by nurses was taken by Meyer et al. (1993). A three-component organisational commitment framework model (affective, continuance and normative) developed by Meyer and Allen (1991) was tested using factor analysis in both commitment domains. The Meyer et al. (1993) test confirmed that the three-component theoretical model was generalisable from organisational commitment to occupational commitment. The components contributed separately and independently as predictors of work behaviour. In the current study, a theoretical framework using job stress, burnout and job satisfaction could be attempted to predict work behaviour that is, intention to leave. Figure 4.1 presents a conceptual framework developed by Alexander et al. (1998).



Source Alexander, Lichtenstein, Oh and Ullman (1998)

Figure 4.1: Alexander et al.'s (1998) theoretical framework for nurses' intention to leave

In this theoretical framework, Alexander et al. (1998) sought to develop relationships between job attitudes and behaviour. The assumption was that 'individuals have unique, enduring needs and that jobs have specific, objective characteristics' (Alexander et al. 1998, p. 416); thus, job attitudes influence intention to leave and subsequent behaviour. According to Alexander et al. (1998), the opposing theory is that individual needs and expectations are influenced by the working environment, and attitudes are formed through past behaviour and choices, and the current social context. The theory in Figure 4.1 includes factors from both of these constructs and assumes that individual attributes reflect past experiences and orientations, and that they will interact with the working environment to influence work attitudes and behaviour. Alexander et al. (1998) took the theory beyond the notion that nurses' job satisfaction solely influences intention to remain with the employer by stating that nurses' attitudes 'will, in part, be shaped by their training, experience, and referent group (social network)'. Thus, the researchers theorise that different categories of nurses will react

differently to work tasks and processes. Taken from the viewpoint of this study, expatriate nurses would be less concerned about career prospects than Saudi nurses.

### 4.3 Theoretical Model Development for this Study

As discussed, these early theoretical models have contributed to this study's theoretical model, as presented in Figure 4.2.

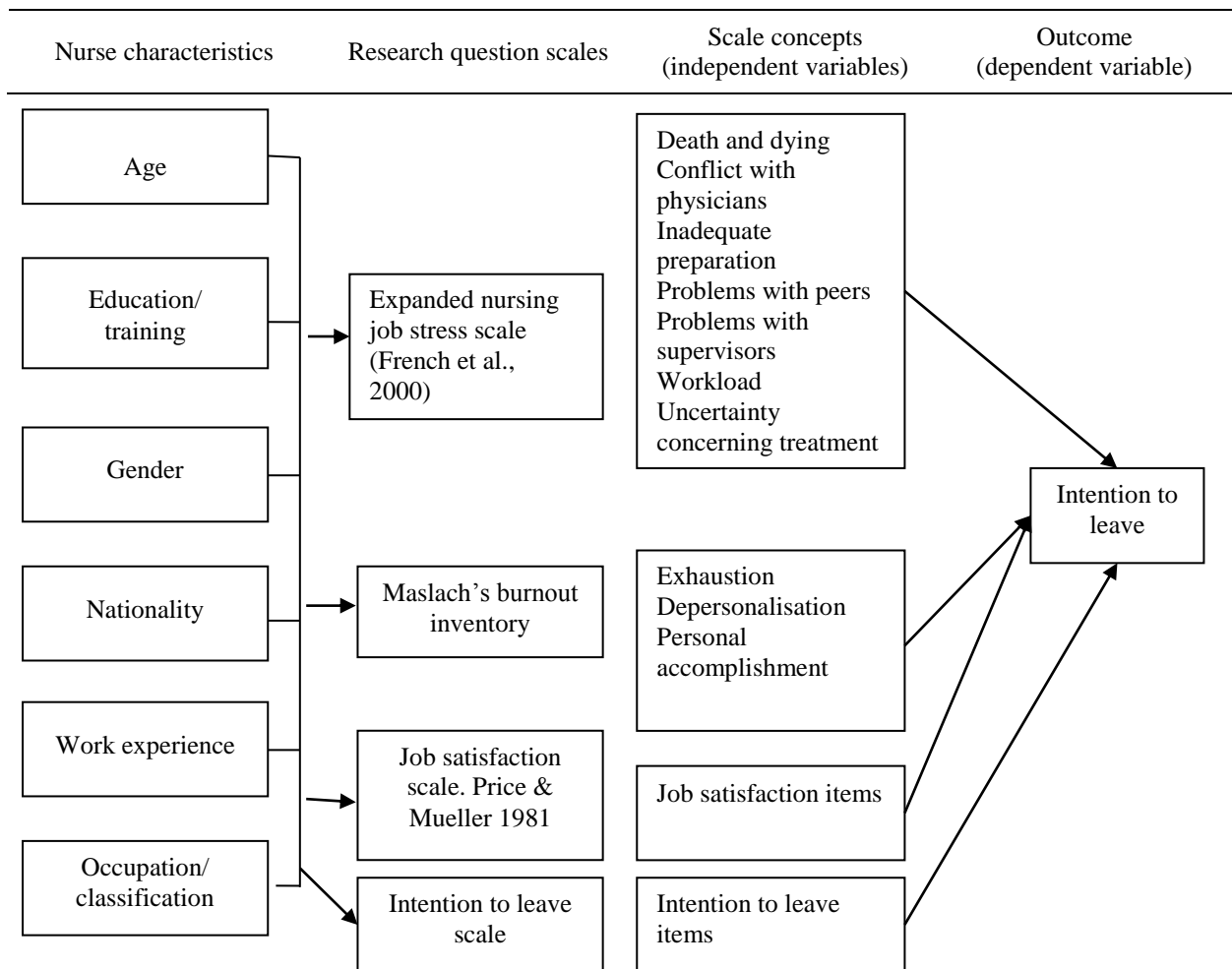


Figure 4.2: Conceptual framework of the study

This research seeks to identify the characteristics of the nurse sample and their views and experiences concerning the scale concepts associated with job stress, burnout, job satisfaction and intention to leave. Further, the relationships between the items of the 14 scale concepts can be compared to assess the individual and combined effects on intention to leave.

Janssen et al. (1999) pointed out the difficulties in assessing psychological and behavioural outcomes in a similar study, while Meyer et al. (1993) successfully tested commitment variables for nurses in regards to both the organisation and the profession. The latter study showed that it was feasible to generalise a theoretical concept from one focus (organisation) to another (profession). The third theoretical framework studied was that of Alexander et al. (1998), which showed the relationships between individual characteristics, theory and behaviour. Alexander et al.'s (1998) concept was therefore adapted for this study's use, including the mediating values of the selected scales. However, Alexander et al.'s (1998) conclusion that intention leads to action was omitted, according to Janssen et al.'s (1999) observation that the researcher could not revisit the sample to find the eventual outcome because the individual participants were not known.

#### **4.4 Chapter Summary**

This chapter has presented the theoretical framework for the study, which has been adapted from the nursing literature in order to build a theoretical foundation on which to undertake the primary research. The methodology of the study is presented in the next chapter.

## **Chapter Five: Methodology**

This chapter presents the methods used to collect and analyse the data in order to answer the research questions concerning satisfaction, burnout and stress for nurses in Ha'il hospitals. The primary research is based on the theoretical framework in the previous chapter. The first part of the chapter discusses selecting the research design, the paradigms and the research approaches for qualitative, quantitative and mixed-methods design. The measures selected for the research instrument a questionnaire are then presented, and the sample selection is explained while taking into account reliability and validity. The structure of the survey and its reliability and validity are outlined. The administration and conduct of the survey are explained, and the ethics, data collection and data analysis are presented in full. A discussion of the research model completes the chapter.

### **5.1 Research Design**

In the nursing field, Burns and Grove (2010) advocated for an evidence-based approach that 'generates knowledge about nursing administration, healthcare services, characteristics of nurses, and nursing roles' (p. 4). Bowling (2009) explained that scientific enquiries of the past were built on deductive logic, so that researchers began with general ideas and then built hypotheses and theory. In this case, using theory, the primary research may be used to reduce data from the theories to a point of being tested to a specific conclusion. Conversely, inductive logic begins with specific data, that is, observations and measures and then analyses them to detect repetition and patterns, formulate hypotheses or develop general conclusions or theories. In current practice, research tends to be 'a mixture of empirical conception and the certainties of deductive reasoning' (Burns & Grove, 2010, p. 5).



This section considers the holistic nature of research in the nursing literature, as well as the selection of design, the influence of context and that of previous researchers. These matters are addressed below.

### **5.1.1 Paradigms.**

According to Polit and Beck (2013), the different approaches to nursing research are based on paradigms, or sets of beliefs and practices shared by groups of researchers. The original paradigm that dominated nursing research for decades was positivistic a cultural movement of the late nineteenth and early twentieth centuries that emphasised the deductive approach of rational and scientific research designs. However, an alternative approach grew during the twentieth century to become the constructivist, or naturalistic, approach. In the mid twentieth century, researchers were seeking to understand social constructs, and for this design, social data were constructed from insights from research participants so that researchers and interviewees built knowledge through enquiry and reasoning. In a constructivist paradigm, the attitudes, knowledge and interpretations of the participants are crucial to the understanding of the phenomenon under investigation. The effect of the social paradigm resulted in a change to the original paradigm to post-positivism (Polit & Beck, 2013).

As noted, nursing research originally followed a positivist paradigm. Earlier, Allen, Benner and Diekelmann (1986) stated that an empirical (positivist) paradigm uses scientific objectivity, which allows researchers to observe from a distance and derive knowledge: ‘the knower can be completely differentiated from the known’ (Allen et al., 1985, p. 25). In nursing research, Myers (2000) stated that the empirical/positivist paradigm reality is a two-dimensional concept explained by cause-and-effect relationships. This approach is quantitative, deductive and seeks to observe truth as objective reality. The constructivist paradigm uses the ‘new’ social engagement qualitative design to collect and analyse data.

There is also a third paradigm. Clark (1998) explained that the qualitative–quantitative debate moved from ‘positivism and confrontation to post-positivism and reconciliation’ (Clark, 1998, p. 1242). Clark argued that positivism in nursing research had long been synonymous with an empirical research design, which was inappropriate given the nature of the research. The researcher proposed post-positivism an alternative philosophy to positivism which can also underpin empirical inquiry. Positivism had served researchers; however, ‘an outmoded and rejected philosophy which should cease to significantly shape inquiry’ (Clark, 1998). Clark advocated for a research design to be selected only on the basis that it could answer the research questions.

### **5.1.2 Approaches.**

Research design can take many forms; however, they all relate to collecting data to answer the research questions within the theoretical framework. Robson (2011) depicted research designs as qualitative and quantitative ‘paradigms’ and as a range of other designs, namely: ethnographic designs, which describe a group of people or a culture; grounded theory, where theory is derived from the data in the inductive logic approach; and case or cases studies, where a unit or units are described as phenomena in their own right.

#### ***5.1.2.1 Qualitative research.***

Qualitative research is of interest to students of social relationships. Flick (2009) opined that the era of encompassing theory-setting is past, and the need for large-scale data that are subject to mathematical analysis is of less importance: ‘Locally, temporally, and situationally limited narratives are now required’ (Flick, 2009, p. 12). The means of gathering such data is based on the constructivist paradigm, where the researcher gathers data and addresses the research problem through an inferential approach. However, the use of a qualitative research design is based on the research questions. Flick stated that most

phenomena cannot be explained in isolation, and that the subject of investigation should be such that contextual influences are minimised. According to Flick, one option is to build a complex research design a multi-level quantitative design in order to understand complex models statistically and empirically. The design selected for this research was a multi-level quantitative design.

A qualitative design explores the manner by which people make sense of their experiences and their interactions with the social and natural environments (Speziale et al., 2011). Qualitative analysis was used by a number of researchers to explore different phenomena: 'For example, ethnographers focus on culture and customs, grounded theorists investigate social pressures and interaction, whilst the phenomenologists consider a phenomenon and describe the "life world"' (Holloway & Wheeler, 2010, p. 3).

As Holloway and Wheeler explained, a qualitative design is context-bound, and researchers must be sensitive to the natural environment of the people whose thoughts and experiences they wish to explore. Researchers use copious descriptions to explore, analyse and interpret responses from people. Although they have a close and equal partnership with the study participants, by the nature of the approach, there is a subjective element for the researcher, so bias must be acknowledged and assessed in the analysis (Holloway & Wheeler, 2010).

Data collection in qualitative research is generally person-to-person, through interviews, group interviews or case studies, and occasionally through written open-ended questions such as online questionnaires. Data are gathered through structured or semi-structured questions so that participants' responses can be compared to some extent. The data must then be transcribed and sorted using words, phrases or other commonalities, and synthesised into concepts and themes that answer the research questions. Critics of this approach cite the means of proving data reliability, an inability to validate the results, and

that as site or time specific, and the researcher's inability to generalise the findings to another population (Creswell & Plano Clark, 2011; Sandström et al., 2011).

#### ***5.1.2.2 Mixed-methods research.***

Mixed-methods research usually refers to at least two methods of gathering data quantitative and qualitative and there are several pathways to its application (Creswell & Plano Clark, 2011). Mixed methods can also integrate different designs, such as case study, qualitative and comparative approaches, and those based on secondary data in the context of quantitative or qualitative design. Andrew and Halcomb (2009) explained that mixed-methods research that is, using both quantitative and qualitative approaches is accepted in nursing research due to the increasingly complex and multi-faceted phenomena.

#### ***5.1.2.3 Quantitative research.***

According to Creswell and Plano Clark (2011), quantitative research is a design that comprises data collection to answer the research questions in numerical form in order to permit mathematical and statistical analysis. In this research, the use of modelling in nurses' intention to leave Ha'il hospitals influenced the use of a quantitative design to collect data. The objective was thus to develop mathematical models or theories to understand the phenomena. In a quantitative design, a theoretical model can be comparatively tested using samples from different environments, or a series of models may be used in a transformative process to both test the models and answer the research questions. In this thesis, the latter, transformative process was selected.

The strengths of quantitative research become apparent when using psychometric instruments for data collection and analysis (job stress, burnout, job satisfaction and intention to leave) (Sandström et al., 2011). Sandström et al. (2011) called for greater attention by researchers to quantitative research given that it produces quantifiable, reliable data that are

usually generalisable to other populations. In contrast to qualitative research, which is more exploratory, quantitative analysis permits the study of a large number of variables and allows researchers to test hypotheses and models. Considering nursing research, Kim et al. (2012) concurred with the call for greater use of quantitative research. They conducted a meta-study of investigative procedures from papers in a Korean journal (1989–2011) and found that:

surveying was the most popular research design (67.6%) followed by experimental (26.5%), and methodological study (5.5%) design. Over 80% of studies with translated or developed instruments reported reliability for psychometric analysis, while only 18% of the studies reported validity of the instruments they used (Kim et al., 2012, p. 85).

#### ***5.1.2.4 Types of quantitative design.***

Quantitative research generally quantifies relationships among variables, the independent variable to be used to predict future events and the dependent variable to describe the outcome. Sousa, Driessnack, and Mendes (2007) explained that quantitative designs are either experimental or non-experimental. This research design is non-experimental; it is used to ‘describe, differentiate, or examine associations, as opposed to direct relationships, between or among variables, groups, or situations’ (Sousa et al., 2007, p. 1). Data are generally collected through surveys, where questions are typically closed to allow data to be assigned numbers (Sousa et al., 2007).

A descriptive or exploratory design is used when little is known about the subject under study (Sousa et al., 2007). The researcher describes the data, determines the frequency of occurrence and categorises the results. Next, a descriptive design may be a case control or a comparative (causal-comparative) approach. Case studies in nursing research comprise subjects such as individuals, families, groups and organisations, and they are useful for

longitudinal studies. Comparative studies describe differences between two or more variables (Yin, 2009).

According to Burns and Grove (2010), correlational designs systematically investigate associations between variables that is, if the change occurring in one variable is related to changes in others (co-variance). Correlations can be used to analyse magnitude, direction, degree and strength of the association between variables, and typical designs are predictive (influential), descriptive and model-testing correlational (Sousa et al., 2007). Predictive correlational studies explore which factors predict or influence other variables; in this case, the predictor variable is the independent variable. However, these variables occur naturally and are not manipulated. Descriptive correlational studies describe the variables and the relationships that occur naturally, and model-testing correlational studies examine, or pilot test, relationships for a model (Sousa et al., 2007). A descriptive correlational design was selected for this research to explore the relationships between variables and groups of variables from model questions relating to Ha'il nurses' intention to leave that is, job stress, burnout and job satisfaction. As a quantitative study, a written self-administered questionnaire was selected as the best method to collect the amount of data required in exploring these models, and this is discussed in the section entitled Selection of Scales for a Questionnaire.

### **5.1.3 Factor analysis.**

Further to the descriptive correlational design for the research, exploratory factor analysis was employed. Williams, Brown and Onsmann (2010) explained that factor analysis is a relatively recent analytical method that emerged with increased computational capacity and the advent of statistical software programs. Factor analysis is a multivariate statistical process used in social research, and it is particularly applicable to self-administered questionnaires. The method has many advantages; those that are applicable to this research

include summarising questionnaire factors, establishing linkages between measured variables and underlying (latent) constructs, and providing construct validity for self-reporting scales. Factor analysis is used to test models and theories (Williams et al., 2010).

There are two forms of factor analysis: exploratory and confirmatory. Exploratory analysis is used to generate theory, while confirmatory analysis tests a theory (Tabachnick & Fidell, 2007). To address perceived issues regarding factor arrangements and the rotational scheme design, Williams et al. (2010) advised that rigour be used in the interpretation and processing of the data.

Factor analysis is widely used in nursing research, although confirmatory factor analysis appears more frequently than exploratory as researchers seek to prove theories. Kääriäinen et al. (2011) supported the use of confirmatory factor analysis in testing and verifying nursing theory. Recently, Reid, Courtney, Anderson and Hurst (2013) used confirmatory factor analysis to test the Brisbane Practice Environment Measure, finding support for 28 of the 33 items on the scale. Williams and Brown (2013) tested a self-directed learning readiness scale on 233 Australian healthcare undergraduates, finding little support through confirmatory factor analysis for the full scale of 40 items, but some support for reduced item versions (36 and 29). Watson et al. (2013) tested a Chinese version of the Stressors in Nursing Students Scale on 914 student nurses, finding support for the scale using confirmatory factor analysis. Earlier, Poghosyan et al. (2009) used both types of factor analysis to explore the relationships of items on the Maslach burnout scale, noting that a minor transfer of items between scales may assist predictive validity (confirmatory factor analysis).

Conversely, Williams, McKenna, French and Dousek (2013) tested the clinical teaching preference questionnaire on 263 nurse students using exploratory factor analysis. They found that the questionnaire on peer learning opportunities had adequate construct

validity and reliability. Hu, Luk, Lok and Hsaio (2012) used exploratory factor analysis to test a hazardous workplace scale against the Maslach burnout index, finding relationships between psychosocial harassments, biological threats and polluted environments, with depersonalisation, emotional exhaustion and personal achievement factors from the burnout inventory. While exploratory factor analysis is used less among contemporary nurse researchers, it is a valid quantitative method for examining the data among a number of scales that is, job stress, job satisfaction, burnout and intention to leave.

#### **5.1.4 Context.**

While theory and research models guide research, the study design should also consider context (Anderson & Taylor, 2009). In this case, the location of the population, and thus the sample, is of importance, as Saudis are conservative in their views and, until recently, women were rarely employed and thus their views are not reflected in the literature.

The nursing profession presents a traditional occupation for Saudi women that is increasingly important as the government brings more Saudis into the labour market through its Nitaqat program. With a large expatriate population, turnover among the nurse population is high, and it is important for regional cities such as Ha'il to be able to attract quality healthcare staff. In recent years, Saudi women have been recruited into nursing, and there have been attempts to move nursing from an occupation to a profession to enhance its status and meet global healthcare standards (Miller-Rosser, Chapman & Francis, 2006). Thus, in gathering data to answer the research questions, the research design should take context into account, including the remoteness, culture and nature of the labour force. A self-completed survey instrument was considered the best approach for this population due to distance and the difficulty that participants might experience in speaking openly about their opinions.



To select an appropriate research design, the literature was perused to identify approaches that are relevant to nurse turnover in rural Saudi Arabia. Table 5.1 presents a summary of recent relevant studies in which methods and findings may be useful for this study.

Table 5.1

*Employment perceptions of nurses in Saudi Arabia*

Aim	Reference	Method	Outcome
Leadership style on job satisfaction and intention to stay	Abualrub & Alghamdi, 2012	Multifactor Leadership Questionnaire, Job Satisfaction Survey, McCain's Intent to Stay Scale: Descriptive, correlation	Saudi nurses were moderately satisfied in their jobs. In addition, nurses were more satisfied with leaders who demonstrated transformational leadership styles, and those who were more satisfied with their jobs intended to stay.
Nurses in Riyadh, job satisfaction, job performance	Al-Ahmadi, 2009	Descriptive, regression, correlation	Job performance was positively correlated with organisational commitment, job satisfaction and demographics.
Critical care nurses, job satisfaction & intention to leave	Alasmari & Douglas, 2012	Descriptive, regression	Intention to leave was associated with demographic variables including age, family and experience; and job satisfaction subscales of workload; professional support; and pay and prospects for promotion.
Nurses in a university teaching hospital	Al-Dossary, Vail & Macfarlane, 2012	Descriptive, ANOVA, <i>t</i> -test, correlation	There was satisfaction with supervision, co-workers and nature of work, but dissatisfaction with remuneration and working conditions.
Nurses in Jazan, quality of work life	Almalki, FitzGerald & Clark, 2012	Regression, correlation, univariate model, general linear model	Nurses were dissatisfied with their work life, with 40% indicating a turnover intention from their current employment. Turnover intention was significantly related to quality of work life.
Nurses who resigned in Riyadh 2006–2010	Alonazi & Omar, 2013	Exit questionnaire, simple and multivariate analysis	Nurses remained employed for 2.2 years (75%). There was a strong positive correlation between length of employment (turnover) and demographic and organisational factors.
Expatriate nurses: job satisfaction and turnover	Bozionelos, 2009	Hierarchical regressions testing hypotheses	Mentoring and peer support was positively associated with job satisfaction.

Table 5.1 illustrates that researchers used a range of designs to explore research ideas and answer research questions; the majority used descriptive analysis and quantitative research with various forms of regression analysis. Thus, the literature supports that this research may be best served by using a survey method approach to analyse the data and answer the research questions.

### **5.1.5 Summary of design selections.**

This study employed a survey design approach that could identify and explore the relationships between job stress, burnout, job satisfaction and intention to leave for nurses in hospitals in the Ha'il region in Saudi Arabia. The design selected was a descriptive research design specifically, the descriptive-correlation method. In descriptive studies, researchers count, delineate and classify; they are concerned with analysis and testing the relationships between variables. Correlation studies are used when researchers cannot manipulate the cause variable and thus seek relationships between variables (Polit & Beck, 2010). While correlation studies can suggest a relationship between two variables, they cannot prove causation (Burns & Grove, 2010).

As shown by the early research, several dimensions relating to intention to leave were frequently compared by researchers (e.g. Kim et al., 1996). Research into intention to leave continues to be of interest in contemporary research, often utilising descriptive-correlation design. For example, nurses' perspectives and beliefs regarding their work and environment were studied by Applebaum et al. (2010), who used a descriptive-correlation design to gather and analyse data on, *inter alia*, perceived stress, job satisfaction and turnover intention among medical-surgical nurses working in acute-care settings. They found relationships between perceived stress and job satisfaction, job satisfaction and turnover intention, and perceived stress and turnover intention. Similarly, Chan, Luk, Leong, Yeung and Van (2009) used a descriptive research design to study factors relating to intention to leave among nurses in

Macao, China (N=426), including job satisfaction and commitment. Finally, Zangaro and Watts Kelley (2010) undertook a meta-study of the literature between 1980 and 2010 regarding nurses' intention to stay in an organisation, finding that the majority of studies used a descriptive-correlation design and were specific to one particular service. They found several satisfiers, including teamwork, favourable work environments, pay and benefits, promotional opportunities, leadership and management experiences. Thus, the weight of evidence in the literature confirms that a descriptive-correlation method using a self-administered survey is an appropriate research design for this study.

## **5.2 Questionnaire Measures**

The research plan for collecting and analysing data was based on a series of standardised scales supported by demographic and individual data, including nationality, education and experience, and family responsibilities. Research designs based on the selected models of job stress, burnout, job satisfaction and intention to leave are discussed in this section.

### **5.2.1 Job stress.**

The terminology used by researchers varies, and occupational or job stress emerged from the occupational health and safety debate of the last few decades of the twentieth century. For example, LaRocco, House and French (1980) conducted an analysis of the literature that studied men across occupations, finding support for the hypothesis that social support ameliorated the effects of occupational stress on health. However, they found no support for its effects on job-related strain (workload, dissatisfaction, boredom).

Frankenhaeuser et al. (1989) empirically studied four groups of male (N=30) and female (N=30) managers and clerical workers (N=60) at work and at home, finding differences in stress levels between work and home. Further occupational differences were found between

men and women in relation to occupational level and autonomy, competitiveness, and work and family balance. Thus, there was early support for job-related stress and stress associated with working conditions.

Occupational stress questionnaires proliferated from the 1980s notably Gray-Toft and Anderson's (1981) Nursing Stress Scale of 34 items relating to situations that cause stress for nurses in the performance of their duties. The scale provided scores on seven subscales for frequency of stress experienced by nurses, as well as a total stress score. Cohen, Kamarck and Mermelstein (1983) developed a generalised stress scale the Perceived Stress Scale which bridged the gap between work and lifestyle.

In the 1990s, researchers were studying occupational and job stress in specific occupations such as primary school teachers (Borg, Riding & Falzon, 1991), police (Crank & Caldero, 1991), public servants (Bogg & Cooper, 1995), university staff (Kinman, 1998) and nurses (Lee & Henderson, 1996). Instrument development continued, with Cushway, Tyler and Nolan (1996) producing a survey for psychiatric nurses, and the Occupational Stress Indicator by Williams and Cooper (1997), which scored a self-administered questionnaire for psychometric properties. Spielberger and Reheiser (1995) developed the Job Stress Survey, noting considerable gender differences that reflected Frankenhaeuser et al.'s (1989) findings. At the turn of the century, French et al. (2000) further developed Gray-Toft and Anderson's (1981) Nursing Stress Scale, expanding it to better reflect the actual conditions that nurses experienced. The expanded scale is thus used in this research and is described as:

comprised (of) nine subscales death and dying, conflict with physicians, inadequate preparation, problems with peers, problems with supervisors, workload, uncertainty concerning treatment, patients and their families, and discrimination (French et al., 2000, p. 161).

### **5.2.2 Burnout.**

This term was used interchangeably with job stress until the early 1980s, when Maslach and Jackson (1981) proposed a scale for human services professionals. They found three subscales: emotional exhaustion, depersonalisation and personal accomplishment. Later, they established the Maslach Burnout Inventory to investigate organisational conditions 'especially absence of positive feedback, lack of control, lack of role clarity, lack of social support, and unrealistic personal expectations about the job' (Maslach & Jackson, 1984, p. 133). This scale produced significant findings, including Leiter and Maslach's (2009) findings, which identified areas of working life for nurses that predicted burnout and subsequently turnover intentions. Leiter and Maslach (2009) found that cynicism was the key burnout dimension for turnover, and the most critical areas were value conflicts and inadequate rewards. As there was little research attention to other scales for burnout, Maslach and Jackson's 1984 inventory was selected for this study.

### **5.2.3 Job satisfaction.**

Studies of job satisfaction have a long history. Brayfield and Rothe (1951) developed an index of job satisfaction based on previous attitude scales, and this was followed by similar composite scales. Porter, Steers, Mowday and Boulian (1974) developed an index of job satisfaction to study organisational commitment, job satisfaction and turnover among psychiatric technicians using the Organisational Commitment Questionnaire and Job Descriptive Index, and the efficacy of this approach was questioned (Faragher, Cass & Cooper, 2005; Wanous, Reichers & Hudy, 1997). For nurses, Price and Mueller (1981) used job satisfaction as a subscale of intention to leave, with the remaining three determinants as intention to stay, opportunity and general training. Mueller and McCloskey (1990) proposed a satisfaction survey in three dimensions containing eight interpretable factors: satisfaction with extrinsic rewards, scheduling, family/work balance, co-workers, interaction,

professional opportunities, praise/recognition and control/responsibility. Due to the intention of this study to explore intention to leave, the Price and Mueller model was selected.

#### **5.2.4 Intention to leave.**

Researchers have used various terms to describe an employee's departure from the workplace, including intention to leave, voluntary turnover, intention to quit and retention. Martin (1979) developed a model of turnover intention using structural elements (upward mobility, equality, communication and routine), an environmental variable (opportunity), a mediating variable (job satisfaction) and four demographic variables (occupation, age, education and gender). Muchinsky and Morrow (1980) posited that voluntary turnover was influenced by work-related factors and the states of certain economic variables. They developed a model for four sets of indicators: individual, organisational-social, organisational-economic and societal. Carsten and Spector (1987) later tested this model in a meta-study, finding a relationship between unemployment rates and satisfaction–turnover. Carsten and Spector (1987) also found a similar relationship between intention to quit and turnover, as Muchinsky and Morrow predicted. Income is relevant to this study, as Saudis find issue with low pay and lack of career structure through employers' access to expatriate two-year contract labour (Harry, 2007).

In the nurse research field, Kim et al. (1996) studied a causal model developed from the earlier Price and Mueller (1981) construct to explain career intent. They analysed data derived from records and career medical professionals by ordinary least squares regression analysis, finding that intention to leave was influenced by seven variables: organisational commitment, job satisfaction, search behaviour, opportunity, met expectations, positive affectivity and promotional chances.

### **5.2.5 Summary of measures.**

This discussion on the selection of scales for the questionnaire determined the content of the survey to a high degree. However, a range of data analyses can be employed for the data after they are collected and prepared. Such analyses are also part of the research design, and this is discussed in the following subsection.

### **5.3 Sample**

Of the forms of sampling, total population sampling (in this case, as close as possible to a total population of public hospitals) was chosen to collect and analyse the data from nurses working in hospitals in the Ha'il province. Noting issues in sample selection, Gillespie, Chaboyer and Wallis (2010) used two sample methods to survey nurses for studies in managing stress and coping a large random sample from an Australian database (N=772) and a small purposive sample from two hospitals (N=1214) finding differences in results between the two. As this research is also focused on nurse retention in a provincial setting, Gillespie et al.'s (2010) conclusion warning of selection bias in smaller samples compared to total population studies is relevant. To address these issues, a total population sample of nurses in public urban and rural hospitals in Ha'il province was chosen.

Five public hospitals in the province of Ha'il, three in Ha'il city and two in small nearby towns agreed to provide access to their nursing workforce. The first was King Khaled Hospital, which is located in the centre of Ha'il city, with 400 beds and 350 nurses. As the major supplier of public medical services to the province, the hospital receives referrals from other hospitals and medical centres in the area (Ministry of Health, 2013). Predating King Khaled Hospital, Ha'il General Hospital, with 280 beds and 300 nurses, also has general and specialist services. The third is a psychiatric hospital of 100 beds, again in the city. The fourth hospital is Baqa'a Hospital in Baqa'a, which is a small town around 75km to the north

of Ha'il, with 100 beds. The fifth hospital was Mawqaq Hospital, in another small town 50 km to the west of Ha'il, with 50 beds.

The criteria for potential participants for this study were those who were employed either full time or part time in public hospitals. Participants for this study are likely to be both Saudi and non-national participants, as Almutairi and McCarthy (2012) claimed that 68% of all nurses working in Saudi Arabia are expatriate. They are predominantly from the Philippines and India, as well as the UK, Canada, United States, Australia, South Africa and other countries in the region. Nurses in the region are frequently in short supply; Al-Asmari (2013) quoted the Ministry of Health's requirement for the Kingdom at the time as 40,000 nurses, male and female, given the gender-segregated hospitals. Al-Asmari (2013) queried the adequacy of this number by indicating that the figure would account for only 15.4 nurses per 10,000 persons living in Saudi. Al-Sayed (2013) mentioned a 2010 Ministry of Health report, which stated that there were 43.7 nurses per 10,000 residents in the Kingdom, compared to the European average of 66.

The Health Department advised this researcher that there were 954 registered nurses in the Ha'il province (population 650,000), which is significantly under the Saudi ratio. The Ha'il nurse population reflects the national composition of the Kingdom's nursing staff, as well as expatriate nurses and nurse managers working in all clinical areas. Thus, the population comprises all nurses from the selected public hospitals, and the sample comprises the nurses who responded to the invitation to contribute to the study. The limitation on sample selection is response bias regarding those who were unwilling to participate in the study. The sample return will be discussed in the results chapter.

#### **5.4 Reliability and Validity of the Instrument**



As discussed above, the research instrument selected for this study was a questionnaire. The questionnaire, reliability and validity techniques are described in this section.

#### **5.4.1 Structure of survey.**

The first part of the instrument established the demographic profile of the nurses in the Ha'il province. It contained five items that determined their age, gender, marital status, nationality and nursing qualifications. While the age and nationality questions were open format (blank spaces), questions on gender, marital status and highest qualification in nursing were presented as closed-ended questions wherein the respondents chose the item that best described their position.

The second part of the questionnaire determined the work profile of the nurses. The open-ended questions included the time since graduation and the length of time the participant had been with the current employer. Closed-ended questions included the professional sector (part of the hospital), job classification and the length of shift the respondent was serving (Liu et al., 2012).

The third part of the survey concerned job stress and comprised 49 items from the Expanded Nursing Stress Scale (French et al., 2000). These items were answered through a four-point Likert scale (never feeling stressed, occasionally stressed, frequently stressed or extremely stressed).

For the fourth part of the questionnaire, the Maslach Burnout Inventory (Liu et al., 2012; Maslach, Jackson & Leiter, 1996; Poghosyan et al., 2009) with 21 items used a six-point Likert scale on experiencing burnout (never, a few times each year or less, once a month or less, once per week, a few times per week or every day).

The fifth part of the instrument identified the job satisfaction level of participants using seven questions (Price & Mueller, 1981) and a five-point Likert scale (strongly agree, agree, neutral, disagree or strongly disagree).

The sixth section concerned respondents' intention to leave the profession (Kim et al., 1996; Jourdain & Chênevert, 2010) using a two-item questionnaire and a five-point Likert scale (see Table 5.2).

Table 5.2

*Questionnaire structure*

Part	Domains	Instrument and author/s	Description	Items
1	Demographic profile	Developed by researcher	Fill in the blank	1
			—age	
			Dichotomous	2
			—gender, marital status	
			Open-ended choice	1
2	Work profile characteristics	Developed by the researcher	—nationality	
			Multiple choice	1
			Highest qualification in nursing	
			Total questions	5 items
			Fill in the blank	2
3	Job stress domains	Expanded Nursing Stress Scale (French et al., 2000; Williams, 2003; Abualrub, 2004)	—years in nursing	
			—years of working experience in the hospital	
			Open-ended question	1
			—work assignment/unit	
			Multiple choice	1
			—current position	
			Dichotomous	1
			—shifting schedule	
			Total questions	5 items
			4	Burnout
Subscales:				
—death and dying	7			
—conflict with physician	3			
—inadequate preparation	3			
—problem with peers	5			
—problem with supervisor	6			
—workload	9			
—uncertainty on treatment	9			
Patients and family	5			
—Discrimination	2			
Total questions	49 items			
5	Job satisfaction	Professional turnover questionnaire (Price & Mueller 1981; Williams, 2003)	Seven-point Likert rating scale	
			Subscales:	
			—emotional exhaustion	8
6	Intention to leave	Professional turnover questionnaire (Kim et al., 1996)	—depersonalisation	5
			—personal accomplishment	8
			Total number of items	21 items
5	Job satisfaction	Professional turnover questionnaire (Price & Mueller 1981; Williams, 2003)	Five-point Likert rating scale	
			Total number of items	7 items
6	Intention to leave	Professional turnover questionnaire (Kim et al., 1996)	Five-point Likert rating scale	
			Total number of items	2 items

Table 5.2 presents the six parts of the questionnaire, which were designed to answer the research questions. Parts 1 and 2 comprise demographic and professional questions to inform the research. Part 3 is the Expanded Nursing Stress Scale (French et al., 2000). This

was recently used by Campbell (2013) to address the holistic needs for the retention of critical care nurses, and by Milutinović, Golubović, Brkić and Prokeš (2012) to study the effects of stress on the health of nurses in Serbia. The scale was used in Dammam in Saudi Arabia by Saleh, Saleh and AbuRuz (2013) to measure the effect of stress on nurses' (N=213) job satisfaction.

The Expanded Nursing Stress Scale consists of 49 items with nine subscales. *Death and Dying* contains seven items (1, 8, 15, 23, 33, 42 and 47). *Conflict with Physicians* contains three items (24, 34 and 43). *Inadequate Preparation* contains three items (2, 11 and 17). *Problems with Peers* contains five items (3, 10, 18, 19 and 45). *Problems with Supervisors* contains six items (4, 26, 27, 36, 41 and 44). *Work Load* contains nine items (11, 20, 28, 37, 38, 40, 46, 48 and 49). *Uncertainty Concerning Treatment* contains nine items with a score range of 10–40 (5, 12, 16, 21, 25, 29, 32, 35 and 39). *Patients and Their Families* contains five items (6, 13, 22, 30 and 31). *Discrimination* contains two items (7 and 14).

The Maslach Burnout Inventory measures symptoms of emotional exhaustion, depersonalisation and reduced personal accomplishments that can occur among individuals who serve others, especially in stressful situations. The survey has acceptable validity and reliability among Italian nurses (Pisanti, Lombardo, Lucidi, Violani & Lazzari, 2013), Macau nurses (Hu et al., 2011) and a study of nurses from eight countries (Poghosyan et al., 2009). Maslach contends that burnout is evidenced by emotional exhaustion, development of depersonalisation (i.e. negative and cynical attitudes towards clients) and reduced self-efficacy. These are the factors measured by the inventory.

The Maslach Burnout Inventory has 21-items with three subscales. *Emotional Exhaustion* contains eight items (1, 2, 3, 6, 8, 13, 14 and 16). *Depersonalisation* contains five

items (5, 10, 11, 15 and 21). *Personal Accomplishment* contains eight items (4, 7, 9, 12, 17, 18, 19 and 20).

The job satisfaction survey (Price & Mueller, 1981) has seven items and was employed by Simon et al. (2010) to study whether nurses intended to leave their employer or the profession. It was also used in Jordan by Abualrub (2010) in research on the relationship between social support and intention to stay.

Finally, the intention-to-leave scale (Kim et al., 1996) was utilised by Kovner, Brewer, Greene and Fairchild (2009) and Brewer, Kovner, Greene, Tukov-Shuser and Djukic (2012) to understand newly registered nurses' intention to stay. Thus, the weight of the research from the time these scales were established, as well as their contemporary use, supports their use in this study.

#### ***5.4.1.1 Reliability.***

Reliability must be established before validity, as it refers to the accuracy and consistency of the data collected for the study. While it may be possible to have a reliable measure that is not valid, the reverse is not true; a valid measure must also be reliable (Polit & Beck, 2010). Statistical reliability refers to the probability that the results of the study may be duplicated using the same procedures on a different population sample. Of the forms of reliability, sampling is important so that the data collected from the study participants reflects the wider population. Cudney, Craig, Nichols and Weinert (2012) observed that sampling nurses in a provincial setting includes issues such as uniqueness of the culture and context, higher costs of contacting potential participants, over-sampling by self-selection of certain groups, and lack of local research infrastructure.

Reliability in the measures of variables comprises research consistency in a quantitative study: the degree to which different researchers' measurements of a phenomenon

agree; test–retest reliability, whereupon the measurements can be repeated; parallel-reliability, where similar tests of a phenomenon gain similar results; and internal consistency, where individual items in a construct should give highly correlated results. Cronbach’s alpha is a test that measures possible splits among the items (Griffiths & Murrells, 2010; Tappen, 2011). In this study, the Cronbach alpha reliability test was used for the Expanded Nursing Stress Scale (part 3), Maslach Burnout Inventory (part 4), job satisfaction (part 5) and intention to leave (part 6).

As noted above, previous researchers have also confirmed reliability, as follows:

- Expanded Nursing Stress Scale (job stress items): Abualrub (2004), Campbell (2013), French et al. (2000), Milutinović et al. (2012), Saleh (2013) and Williams (2003).
- Maslach Burnout Inventory: Hu et al. (2011), Pisanti et al. (2013) and Poghosyan et al. (2009).
- Job satisfaction survey: Abualrub (2010), Price and Mueller (1981), Simon et al. (2010) and Williams (2003).
- Intention to leave scale: Kim et al. (1996), Kovner et al. (2009) and Brewer et al. (2012).

#### ***5.4.1.2 Validity.***

Three forms of validity are relevant to this research: content validity, which is tested through subject knowledge and peer review; construct validity, which seeks to measure the extent to which the cause is measured rather than other variables, and is tested through factor analysis; and criterion validity, which measures the extent to which the results can be generalised to the population (Tappen, 2011).

According to Polit and Beck (2006), content validity in nursing research can be computed by an index, finding consistency in a purposive sample of studies for item-level indices. However, they noted that there are alternative scale-level indices, such as the six parts of this questionnaire, or by selecting item-based indices. Polit and Beck (2006) found the widespread use of both item and item-scale approaches, noting that the method selected can lead to different values. Conversely, Beckstead (2009) queried the origins, theoretical interpretations and statistical properties of content validation theory and indexes, noting that research arguments undermined their usefulness. Content validity for this study is derived from the proven performance of the selected scales over time and their continued acceptance in the nurse research field.

Construct validity is concerned with the theory or model supporting the investigation. Polit and Beck (2010) referred to the validity of the observations or scales that actually measure the matter under investigation. Constructs may be viewed as conceptualising the latent variable under investigation, although such a variable is not directly observable and must be calculated from scores on a given scale. As the key to construct validity is found in the literature, then the use of constructs that is, models or scales that have stood the test of time are the most appropriate for this research. The construct validity for each scale on nurses' intention to leave and their combination selected for this research can be found in research by Barrett and Yates (2002) (job satisfaction and burnout), Grunfeld et al. (2000) (job stress, burnout and satisfaction) and Leiter and Maslach (2009) (job stress and burnout).

Criterion validity is evidenced by the ability of a scale measure to predict a criterion/outcome variable that it should theoretically be able to predict. In this case, the sample was all nurses registered in public hospitals in the province of Ha'il who chose to respond to the survey. Criterion validity can also be found in the extent to which findings may be correlated to the literature (Lohrmann, Dijkstra & Dassen, 2003).

As noted above, previous researchers have also confirmed validity in these scales:

- Expanded Nursing Stress Scale (job stress items): Abualrub (2004), Campbell (2013), French et al. (2000), Milutinović et al. (2012), Saleh (2013) and Williams (2003).
- Maslach Burnout Inventory: Hu et al. (2011), Pisanti et al. (2013) and Poghosyan et al. (2009).
- Job satisfaction survey: Abualrub (2010), Price and Mueller (1981), Simon et al. (2010) and Williams (2003).
- Intention to leave scale: Kim et al. (1996), Kovner et al. (2009) and Brewer et al. (2012).

## **5.5 Ethics and Data Collection**

Permission to undertake this research was received in 2011 by the RMIT Human Ethics Committee (see Appendix A and B). This was followed by permission from the Ministry of Health to conduct the research in Ha'il provincial hospitals regarding satisfaction and stress for nurses in public hospitals and the effect on their intention to remain or leave employment (see Appendix C).

After all permissions were received, the hospital directors were approached for a central contact point for each hospital. The printed surveys were distributed together with a covering letter explaining the purpose of the survey, that participation was voluntary, that all data were confidential and none could be attributed to a single individual, and that the data would be held in a secure place according to the university's protocols (five years). Consent was gained by the respondent by the completion of the questionnaire. Contact details for the researcher were attached, and an envelope was enclosed in which the participant would place



the survey and seal it. This was then to be placed in sealed boxes at collection points across the hospitals.

Individual envelopes, each containing an invitation, information sheet and the survey (to be returned within one week), were distributed to the education departments of the five selected hospitals in July 2011, with sufficient copies delivered to include each registered nurse. In total, 954 copies were supplied, along with contact details for the researcher and advice concerning the collection of the completed questionnaires. These were distributed to each unit's internal mailbox by designated education staff, with collection boxes for completed surveys, including those left blank. The researcher attended early morning handover sessions and visited all units to encourage the nurses to complete the questionnaires. The researcher contacted the training group for each hospital at the end of the first week and again at the end of the third week. By August 2011, there were 297 fully completed surveys a return rate of 31%. As it was unlikely that further responses were forthcoming, the study was concluded at 297 returns. Returned surveys were secured according to the university's protocol. First, they were kept in locked compartments during transcription into a password-protected file on the university's server. Upon completion, the surveys were sealed in packages, labelled and filed in a secured area and will be stored at RMIT University for five years after the completion of this PhD thesis.

## **5.6 Data Analysis**

The data from the completed surveys were coded and entered into an SPSS program, and descriptive statistics were first sought. Preliminary analysis was conducted by assessing the reliability of various scales using Cronbach's alpha coefficients. Scores were aggregated by generating the means for each measure (Tappen, 2011). The normality of data distribution was assessed by examining the standardised skewness and kurtosis. Skewness is a measure of symmetry, or the lack of it, and kurtosis is a measure of whether the data are peaked or flat

relative to a normal distribution. A histogram was used as an effective graphic technique for showing the skewness and kurtosis of the data set for large samples (Bai & Ng, 2005).

Coding errors can occur when the researcher erroneously enters raw data from surveys into the wrong category in analytical software. Missing data can occur when a respondent neglects to correctly complete all questions on a survey and thus skews the overall results for those items. Responses to all survey items were rechecked to avoid instances of coding errors and missing data. To avoid errors in the statistical analysis, any missing values were imputed with the mean score for the corresponding items. The mean is an accepted method for correcting occasional missing responses, and its use is dependent on the absence of patterns among the missing values (Hair, Black, Babin & Anderson, 2010).

Data were analysed according to the research questions. Bivariate correlations were measured to address part of the first research question. Correlation analysis is a statistical tool for measuring the strength and direction of the linear relationship between two variables (Polit & Beck, 2010). The most common measure of correlation is the Pearson product-moment correlation coefficient ( $r$ , or Pearson's  $r$ ), which is computed through the average cross-product of the standardised score between two variables (-1 to +1). Negative correlations indicate an inverse relationship between the two variables being analysed, while positive correlations indicate a positive relationship between two variables. Research question one is concerned with relationships between variables; thus, a correlation analysis is the appropriate tool to address the problem.

For the second research question, hierarchical regression analyses were conducted. Regression analysis is a statistical technique that allows the modelling of a group of predictors (independent variables) with respect to outcome (dependent variable) (Polit & Beck, 2010). As the values of the predictors change, regression analysis shows the results in

the changes in values of the outcome variable. Research question two refers to assessing the effect of predictor variables (job satisfaction, stress and burnout) on an outcome variable (intention to leave). Thus, regression analysis is the appropriate statistical analysis for this type of research problem. The assumptions in the regression analyses were also assessed by considering the normality of residuals, homoscedasticity, linearity, independence of errors and multicollinearity (Su, Yan & Tsai, 2012).

The approaches to analysis for the survey sections were: Parts 1–2. Demographics and work status. Descriptive statistics and inferential statistics were employed in this analysis, including measures of central tendency such as the mean, standard deviation and weighted mean. Parts 3–6. Exploratory factor analysis was used for data reduction and summarisation for part two (the stress scale section).

The objective of factor analysis is to shrink ‘the dimensionality of the original space and to give an interpretation to the new space, spanned by a reduced number of new dimensions which are supposed to underlie the old ones’ (Rietveld & Van Hout, 1993, p. 254). Factor analysis is a means of identifying the manner by which factors in a matrix cluster together, as well as the relationships between them and the strength of those relationships (Tappen, 2011). Factor analysis is used to identify underlying factors that explain correlations among a set of variables and to identify other uncorrelated variable sets to replace the original set of correlated variables in subsequent multivariate analysis (regression or discriminant analysis). The procedures from factor analysis test interdependent relationships between the items without distinguishing between dependent and independent variables (Chang, Gardner, Duffield & Ramis, 2012; Tappen, 2011). The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was employed to discover whether factor analysis was appropriate ( $>0.5$ ), and Bartlett’s test of sphericity was used to test whether the variables were uncorrelated or correlated in the population ( $r=0$ ,  $r=1$ , respectively).

Eigenvalues represent the total variance explained by each factor, and are used in deciding how many factors to extract in the overall factor analysis (Al-Qaaydeh, Lassche & Macintosh, 2012). Pearson's  $r$  was used to establish the convergent validity between each scale.

Multiple regression analysis was used to describe the relationships among the explanatory variables (job stress, burnout, job satisfaction, demographics and work profile characteristics) and the dependent variables (job satisfaction and intention to leave). For each research question tested, the models with the highest  $R$  and adjusted  $m$  were chosen as the best explanatory models.

### 5.7 Research Model

The research model that explains the relationships between the research questions, the selected scales and the analyses sets is shown in Table 5.3.

Table 5.3  
*Research model*

Descriptive/inferential design			
Research question one	Analysis	Research question two	Research question three
Demographic/ professional (dependent)	Descriptive	Analysis: Chi <sup>2</sup> Pearson's $r$	Analysis Regression
Job stress (dependent)	Factor analysis		
Burnout (dependent)	Factor analysis	Relationships among variables (first part of analysis leading to mediating variable?)	Relationships among variables and influence on intention to leave as independent variable.
Job satisfaction (dependent? Could be mediator)	Factor analysis		
Intention to leave (independent)	Factor analysis		

## **5.8 Chapter Summary**

This chapter provided an explanation of the research environment and the selection of a descriptive correlational design to explore Ha'il nurses' intention to leave by investigating extant models from the literature relating to job stress, burnout and job satisfaction. The instrument design was then presented. The setting and sample followed and the sampling method. Ethical and administrative considerations were addressed. The survey content and validity and reliability were addressed, providing an overview of the analysis methods and the analysis design. The chapter concluded with a depiction of the research process in the model. The next chapter presents the study results, beginning with an analysis of the demographics.

## **Chapter Six: Results**

The previous chapter presented the methodology for this research, and this chapter presents the results of the data analysis. The chapter presents the profile of the participants and their demographics and work profiles, followed by descriptive analysis of items in the measures of job stress, burnout and job satisfaction. The results from the exploratory factor analysis and normality testing follow. To answer the research questions, the characteristics of participants' demographics and work experience are presented (question 1), together with the results of the analysis on relationships between the model concepts of job stress, burnout and job satisfaction (question 2), and these are interpreted with respect to intention to leave (question 3).

### **6.1 Profiles of Respondents**

The first research question partly asks about the work profile characteristics, demographic characteristics, job stress, burnout, job satisfaction and intention to leave in a sample comprising nurses from selected hospitals in the Ha'il region. Descriptive analysis was used to analyse the data from 297 nurses from the Ha'il city and province. The analysis comprised frequencies, percentages and distribution for gender, age, nationality and the highest qualification obtained.

#### **6.1.1 Demographics.**

As there is little information available regarding national and non-national nurses in the Ha'il region, the individual characteristics and demographics of nurses from the sample were used as a proxy. The results are presented in this section.

##### ***6.1.1.1 Age and educational qualifications.***

Participants were asked to provide information concerning their ages and educational qualification. Table 6.1 presents the age and gender profiles for the respondents.

Table 6.1

*Age and educational qualifications for nursing sample*

Age range	Frequency	Percentage
20–30 years	154	51.9
31–40 years	104	35.0
41–50 years	20	6.7
51–60 years	19	6.3
Total	297	100*

Educational qualifications	Frequency	Percentage
Nursing diploma	211	71.0
Bachelor	82	27.6
Master of nursing	4	1.3
Total	297	100*

\* rounding error

Table 6.1 shows 297 responses. Of the sample, the majority of participants (N=154, 51.9%) were aged up to 30 years, followed by nurses between 31 and 40 years (N=104, 35%). Interestingly, in a country where women rarely work over the age of 40 and men over the age of 50, there were participants over these ages in the sample. Table 6.1 shows that the respondents predominantly (N=211, 71%) held a diploma, while over one-quarter (N=82, 27.6%) held a bachelor's degree. This may reflect recent changes in Saudi Arabia's nurse certification to graduate status.

#### ***6.1.1.2 Gender and marital status.***

Respondents were asked to provide information on their gender and marital status in order to provide a demographic overview. Table 6.2 shows the gender and marital status of the participants.

Table 6.2

*Gender and marital status for nursing sample*

Gender	Frequency	Percentage
Male	43	14.5
Female	254	85.5
Total	297	100.0

Marital status	Frequency	Percentage
Single	127	42.8
Married	170	57.2
Total	297	100.0

Analysis of the gender question on the survey (see Table 6.2) shows that women dominate the sample (N=254, 85.5%). The table also indicates that the majority (N=170, 57.2%) of the nurses in the sample were married. This may indicate family responsibilities for the majority of women in the sample.

**6.1.1.3 Nationality.**

Respondents were asked to indicate their nationality, which is a key factor in Saudisation given the high proportion of expatriates working in the country. Table 6.3 shows the balance of Saudi nurses in the Ha'il province.

Table 6.3

*Nationalities of nursing sample*

Nationality	Frequency	Percentage
Saudi	172	57.9
Philippines	69	23.2
Pakistani	3	1.0
Chinese	1	0.3
Indian	50	16.8
Indonesian	1	0.3
Bangladeshi	1	0.3
Total	297	100*

\* rounding error



Table 6.3 completes the demographic analysis by showing that Saudis comprise the majority of the sample (N=172, 57.9%). Given that Saudis represent 60.1% of the Ha'il workforce, this result is to be expected. Further, the numbers of Philippinas/Philippinos (N=69, 23.2%) and Indians (N=50, 16.8%) conform to the expected profile of nationalities for nursing in the Ha'il region.

### **6.1.2 Work profiles.**

The work profiles for the participants are presented in this section. This relates to their experience and classifications.

#### **6.1.2.1 Work experience.**

Respondents were asked to indicate the number of years they had been practising nursing and the years with their current employer. Table 6.4 shows the work experience of the nurse sample.

Table 6.4

*Work experience for nurse sample*

Years in nursing	Frequency	Percentage
0–10 years	206	69.4
11–20 years	63	21.2
21–30 years	21	7.1
31–40 years	7	2.3
Total	297	100.0

Years in the hospital	Frequency	Percentage
0–10 years	272	91.6
11–20 years	20	6.7
21–30 years	5	1.7
Total	297	100.0

The work experience in Table 6.4 shows that of the 297 respondents, more than two-thirds (N=206, 69.4%) had less than 10 years of experience in nursing. The remaining

respondents reported greater experience (N=91, 30.6%). The length of time with the hospital (the Ministry of Health) reflected the age demographics and the nationalities. More than 90% (N=272, 91.6%) had 10 years or less employment at their current workplace.

### ***6.1.2.2 Nurse classification.***

Participants were asked to provide information regarding their clinical area of employment. The area of nurses' employment was of interest, as it showed their nurse occupations and their classifications (see Table 6.5).

Table 6.5  
*Nurse occupation and classification*

Occupation	Frequency	Percentage
Critical care ICU*	48	16.2
Critical care CCU**	16	5.4
Emergency	30	10.1
Medical	30	10.1
Surgical	14	4.7
Obstetrics	63	21.2
Pediatrics	26	8.8
Operating room	18	6.1
Orthopedics	1	0.3
Administration	15	5.1
Infection Control	3	1.0
Psychiatric	31	10.4
Burn	2	0.7
Total	297	100*
Classification	Frequency	Percentage
Staff nurse	233	78.4
Head nurse	21	7.1
Charge nurse	7	2.3
Educator	21	7.0
Supervisors	11	3.7
Director	4	1.3
Total	297	100*

\*rounding error

Table 6.5 shows that a large number worked in obstetrics (N=63, 21.2%), which reflected the regional birth rate of one child per 7.4 Ha'il women per annum. Nurses in the intensive care unit (N=48, 16.2%), psychiatric (N=31), medical (N=30) and emergency (N=30) departments were at or over 10%. The lowest numbers of nurses were in the orthopaedics and burns departments. The majority of respondents were staff nurses (N=233, 78.4%), followed by head nurses (N=21, 7.1%) and educators (N=21, 7%). There were four directors of nursing (1.3%) in the sample.

A further survey question asked about the length of the shift. With one exception, nurses reported that they worked an eight-hour shift, while the single exception was 12 hours.

### **6.1.3 Demographic relationships.**

Cross-tabulations between the participants' demographics and work profiles were undertaken to identify patterns in the data. The following table compares nurse participants' ages, qualifications and length of employment.

Table 6.6

*Comparisons of participants' ages, qualifications and length of employment*

Age	Qualification	Employment at hospital			Total
		N(%*)			N(%*)
		<10 yrs	11–20 yrs	21–30 yrs	
<30 yrs	Nursing diploma	131(43)	1(0.3)	0	132(43.3)
	Bachelor	22(7.3)	0	0	22(7.3)
	Master of Nursing	0	1(0.3)	0	1(0.3)
	Totals	151(50.3)	2(0.7)	0	155(51)
31–40 yrs	Nursing diploma	49(16.3)	11(3.7)	1(0.3)	61(20.3)
	Bachelor	35(11.7)	2(0.7)	0	37(12.3)
	Master of Nursing	6(2)	0	0	6(2)
	Totals	90(30)	13(4.4)	1(0.3)	104(34.7)
41–50 yrs	Nursing diploma	6(2)	1(0.3)	1(0.3)	8(2.6)
	Bachelor	10(3.3)	1(0.3)	1(0.3)	12(4)
	Totals	16(5.3)	2(0.7)	2(0.7)	20(6.6)
>51 yrs	Nursing diploma	7(2.6)	1(0.3)	1(0.7)	9(3.7)
	Bachelor	6(2)	2(0.7)	2(0.7)	10(3.3)
	Total	13(4.6)	3(1)	3(1.4)	18(7)

\* Rounding errors

Table 6.6 shows that for nurse participants aged up to 30 years, 131 (43%) had a diploma in nursing and had been with their employer for less than 10 years. None had a higher qualification than a bachelor's degree. In the next cohort of 31–40 years, 49 (16.3%) held a nursing diploma and had been with their employer for fewer than 10 years, with 13 (4.4%) employed at their hospital for 11–20 years. There were 35 (11.7%) nurses aged 31–40 years with a bachelor's degree and another six (2%) with a master of nursing. In the age range of 41–50 years, the majority of nurses had a bachelor's degree (10 nurses, 3.3%) and had been employed at their hospital for less than 10 years, while only two (1.4%) with a bachelor's degree had been with their employer for more than 10 years. Notably, there were no nurses with a master of nursing in the group. Over the age of 51 years, seven (2.6%)

nurses had been employed at their hospital for fewer than 10 years and had a diploma in nursing, while six (2%) had a bachelor's degree.

Table 6.7 compares participants' classifications with their qualifications and experience (years in nursing). As shown, the majority of staff nurse participants held a diploma in nursing and had fewer than 10 years in service (131 nurses, 43.7%). With a similar length of career, 34 participants (11.3%) held a bachelor's degree. There were 18 (6%) staff nurses with bachelor's qualifications who were nursing in the 21–30 age range. Only one (0.3%) staff nurse had a master of nursing with 11–20 years in the profession. In the head nurse position, the majority of participants (13 nurses, 4.3%) held a diploma in nursing, while six (2%) held a bachelor's degree and only one (0.3%) had a master of nursing. In the head nurse position, 10 (3.3%) respondents were less than 10 years into their careers, while six (2%) had been nursing for between 11 and 20 years and four (1.3%) had been nursing for more than 20 years. In the charge nurse position, four nurses had a diploma in nursing (2%), while three (1.3%) had a bachelor's degree. Four (1.3%) charge nurses had careers spanning between 11 and 20 years. Half (N=9, 3%) of the educators with nursing diplomas had careers in nursing for fewer than 10 years, while all (N=21, 7%) had been in their profession for less than 20 years. Five (1.7%) educator participants held bachelor degrees and four (1.3%) held master of nursing qualifications. There were 11 (3.7%) nurse supervisors, all with no more than 20 years' experience; three (1%) had bachelor degrees and four (1.3%) had diplomas. There were only four (1.3%) participants in the director's position; they held diplomas in nursing and had fewer than 10 years of nursing experience.

Table 6.7

*Comparisons of participants' classifications, qualifications and years in nursing*

Classification	Qualification	Years in nursing				Total N(%*)
		<10 yrs	11–20 yrs	21–30 yrs	>31 yrs	
Staff nurse	Nursing diploma	131(43.7)	27(9)	8(2.7)	4(1.4)	170(56.8)
	Bachelor	34(11.3)	18(6)	7(2.3)	3(1)	62(20.6)
	Master of nursing	0	1(0.3)	0	0	1(0.3)
	Total	165(55)	46(15.3)	15(5)	7(2.4)	233(77.7)
Head nurse	Nursing diploma	7(2.3)	4(1.3)	2(0.7)	0	13(4.3)
	Bachelor	3(1)	1(0.3)	2(0.7)	0	6(2)
	Master of Nursing	0	1(0.3)	0	0	1(0.3)
	Total	10(3.3)	6(1.9)	4(1.4)		21(6.6)
Charge nurse	Nursing diploma	1(0.3)	1(1)	1(0.3)	1(0.3)	4(2)
	Bachelor	1(0.3)	1(0.3)	1(0.3)	0	3(1.3)
	Total	2(0.7)	2(1.3)	2(0.7)	2(0.7)	7(3.3)
Educator	Nursing diploma	9(3)	0	0	0	9(3)
	Bachelor	5(1.7)	2(0.7)	0	0	7(2.3)
	Master of Nursing	4(1.4)	1(0.3)	0	0	5(1.7)
	Total	18(6)	3(1)	0	0	21(7)
Supervisor	Nursing diploma	4(1.4)	4(1.4)	0	0	8(2.7)
	Bachelor	3(1)	0	0	0	3(1)
	Total	7(2.4)	4(1.4)	0	0	11(3.7)
Director	Nursing diploma	4(1.4)	0	0	0	4(1.4)
	Total	4(1.4)	0	0	0	4(1.4)

\* Rounding errors

Table 6.8 depicts comparisons between participants' occupations, their qualifications and nursing experience.

Table 6.8  
*Comparisons of participants' occupations, qualifications and years in nursing*

Occupation	Qualification	Years in nursing				Total N(%*)
		<10 yrs	11–20 yrs	21–30 yrs	>31 yrs	
Critical care (ICU)	Nursing diploma	23(7.6)	8(2.7)	1(0.3)	1(0.3)	33(11)
	Bachelor	7(2.3)	5(1.7)	1(0.3)	0	13(4.3)
	Master of nursing	1(0.3)	1(0.3)	0	0	2(0.7)
	Total	31(10)	14(4.7)	2(0.7)	1(0.3)	48(16)
Critical care (CCU)	Nursing diploma	7(2.3)	3(1)	0	0	10(3.3)
	Bachelor	3(1)	1(0.3)	2(0.7)	0	6(2)
	Total	10(3.3)	4(1.3)	2(0.7)		16(5.3)
Emergency	Nursing diploma	21(7)	3(1)	1(0.3)	1(0.3)	26(8.7)
	Bachelor	2(0.7)	0	1(0.3)	0	3(1)
	Master of nursing	1(0.3)	0	0	0	1(0.3)
	Total	24(8)	3(1)	2(0.7)	1(0.3)	30(10)
Medical	Nursing diploma	10(3.3)	2(0.7)	0	0	12(4)
	Bachelor	12(4)	2(0.7)	1(0.3)	2(0.7)	17(5.7)
	Master of Nursing	1(0.3)	0	0	0	1(0.3)
	Total	23(7.7)	4(1.4)	1(0.3)	2(0.7)	30(10)
Surgical	Nursing diploma	5(1.7)	0	2(0.7)	0	7(2.3)
	Bachelor	3(1)	2(0.7)	0	0	5(1.7)
	Master of nursing	1(0.3)	1(0.3)	0	0	2(0.7)
	Total	9(3)	3(1)	2(0.7)	0	14(4.7)
Obstetrics	Nursing diploma	46(15.3)	3(1)	5(1.7)	3(1)	57(19)
	Bachelor	3(1)	2(0.7)	1(0.3)	0	6(2)
	Total	49(16.3)	5(1.7)	6(2)	3(1)	63(21)
Paediatrics	Nursing diploma	11(3.7)	2(0.7)	1(0.3)	0	14(4.7)
	Bachelor	7(2.3)	3(1)	2(0.7)	0	12(4)
	Total	18(6)	5(1.7)	3(1)	0	26(8.7)
Operating theatre	Nursing diploma	6(2)	2(0.7)	1(0.3)	0	9(3)
	Bachelor	2(0.7)	3(1)	1(0.3)	2(0.7)	8(2.7)
	Master of Nursing	0	1(0.3)	0	0	1(0.3)
	Total	8(2.7)	6(2)	2(0.7)	2(0.7)	18(6)
Orthopaedics	Nursing diploma	1(0.3)	0	0	0	1(0.3)
	Total	1(0.3)	0	0	0	1(0.3)

(continued)

Occupation	Qualification	Years in nursing				Total N(*)
		<10yrs	11–20 yrs	21–30 yrs	>31 yrs	
(continued)						
Administration	Nursing diploma	6(2)	1(0.3)	0	0	7(2.3)
	Bachelor	6(2)	1(0.3)	0	0	7(2.3)
	Master of Nursing	0	1(0.3)	0	0	1(0.3)
	Total	12(4)	3(1)	0	0	15(5)
Psychiatry	Nursing diploma	16(5.3)	12(4)	0	0	28(9.3)
	Bachelor	0	2(0.7)	1(0.3)	0	3(1)
	Total	16(5.3)	14(4.7)	1(0.3)	0	31(10.3)
Infection control	Nursing diploma	2(0.7)	0	0	0	2(0.7)
	Bachelor	1(0.3)	0	0	0	1(0.3)
	Total	3(1)	0	0	0	3(1)
Burns unit	Nursing diploma	1(0.3)	0	0	0	1(0.3)
	Bachelor	1(0.3)	0	0	0	1(0.3)
	Total	2(0.7)	0	0	0	2(0.7)

\* Rounding errors  
N=297

Table 6.8 shows that there were 48 (16%) nurses working in the intensive care unit (ICU), with the majority having been in nursing for less than 10 years (N=31, 10.3%), followed by 13 (4.3%) for 11–20 years and over 20 years (3.1%). The majority of nurses in the ICU held a diploma in nursing (N=33, 11%), while 13 (4.3%) held a bachelor's degree and the remaining (0.3%) had a master's qualification.

In the critical care unit, there were 16 nurses (5.3%), with the majority (N=10, 3.3%) having been in nursing for less than 10 years. Qualifications were either a diploma (N=7, 2.3%) or a bachelor's degree (N=3, 1%). There were 30 nurses in emergency (10%), with the majority having a diploma in nursing (N=26, 8.7%), followed by three (1%) with a bachelor's degree and one (0.3%) with a master's qualification. There were 24 nurses (8%) who had less than 10 years in nursing. The medical area was represented in the survey by 30 nurses (10%), with the majority having a bachelor's degree (N=12, 4%), followed by 10 (3.3%) with a diploma in nursing and one (0.3%) with a master's degree. The majority of nurses working in



medical (N=23, 7.7%) had careers of less than 10 years. In the surgical part of the respective hospitals, there were 14 nurses (4.7%), of whom seven (2.3%) had a diploma in nursing and five (1.7%) had a bachelor's degree. Two (0.7%) respondents in surgical reported that they had a master of nursing. Further, the majority of nurses had been in nursing for fewer than 10 years (N=9, 3%), while three nurses (1%) had 11–20 years' experience and two (0.7%) had more than 20 years' experience.

Of the participants, 63 (21%) reported that they worked in obstetrics, predominantly holding diplomas with fewer than 10 years in nursing (N=46, 15.3%). In paediatrics, 26 (8.7%) nurses reported a high proportion of bachelor degrees (N=12, 4%), but none held a master in nursing. Eighteen (6%) participants said that they worked in the operating theatre, and there was a high proportion of university graduates, with eight (2.7%) holding a bachelor's degree and one (0.3%) a master in nursing. Further, eight (2.7%) had less than 10 years' experience in their professions, while four (1.3%) had 11–20 years. There was just one (0.3%) participant in orthopaedics. In administration, seven (3.3%) nurses reported that they had a diploma in nursing, seven (2.3%) had a bachelor's degree and one (0.3%) had a master's degree; further, the majority of administrative nurses had spent less than 10 years in nursing (N=15.5%).

In psychiatry, the majority (N=28, 9.3%) of the 31 (10.3%) nurses had a diploma in nursing, and the remaining nurses reported a bachelor's degree (N=3, 1%). There were 16 nurses (5.3%) who had a career of fewer than 10 years, with 14 (4.7%) less than 20 years. The three (1%) nurses in infection and control had careers of up to 10 years. Of these, two (0.7%) had a diploma in nursing and one (0.3%) had a bachelor's degree. The two (0.7%) nurses working in burns had also had fewer than 10 years in their professions, reporting a diploma (0.3%) and a bachelor's degree (0.3%) in nursing.

Table 6.9 compares nationality, marital status and age.

Table 6.9

*Comparisons of nationality, marital status and age*

Nationality	Age	Marital status		Total
		Single N(%)	Married N(%)	
Saudi	<30 years	75(25)	58(19.3)	133(44.3)
	31–40 years	4(1.3)	32(10.7)	36(12)
	41–50 years	1(0.3)	1(0.3)	2(0.7)
	51> years	0	1(0.3)	1(0.3)
	Total	80(26.7) <sup>a</sup>	92(30.7)	172(57.3)
Philippines	<30 years	6(2)	1(0.3)	7(2.3)
	31–40 years	17(5.7)	15(5)	32(10.7)
	41–50 years	2(0.7)	10(3.3)	12(4)
	51> years	1(0.3)	16(5.3)	17(5.7)
	Total	26(8.7)	42(14)	68(22.7)
Pakistani	31–40 years	1(0.3)	1(0.3)	2(0.7)
	41–50 years	0	1(0.3)	1(0.3)
	Total	1(0.3)	2(0.7)	3(1)
China	41–50 years	0	1(0.3)	1(0.3)
	Total	0	1(0.3)	1(0.3)
India	<30 years	5(2.7)	6(2)	11(4.7)
	31–40 years	12(4)	21(7)	33(11)
	41–50 years	1(0.3)	3 (1)	4(1.3)
	51> years	0	2(0.7)	2(0.7)
	Total	21(7)	32(10.7)	50(17.7)
Indonesia	31–40 years	1(0.3)	0	1(0.3)
	Total	1(0.3)	0	1(0.3)
Bangladesh	51> years	0	1(0.3)	1(0.3)
	Total	0	1(0.3)	1(0.3)

\* Percentage relates to marital status

<sup>a</sup> rounding error

N=297

Table 6.9 shows that of the total respondents, there were 172 (57.3%) Saudis, with the majority aged 20–30 years and single (N=75, 25%). Of the total, 133 (44.3%) were aged to 30 years, 36 (12%) between 31 and 40 years and the remainder (N=3, 1%) over 40 years. There were 68 (22.7%) nurses from the Philippines, predominantly aged 31–40 years (N=32, 10.7%), as were the Indians (N=33, 11%). Of the respondents, there were three (1%) Pakistanis and one (0.3%) each from China, Indonesia and Bangladesh.

#### **6.1.4 Summary of demographics and work profile.**

The demographics of the participants showed little dispersion from the expected norms for Saudi Arabia, except in a high proportion of Saudi nationals, which was surprising given the low female workforce participation rate. The participants were predominantly female and aged in their twenties, and the majority of non-nationals were from the Philippines and India, as expected. One-third of the participants' educational qualifications were diplomas. The participants had careers ranging up to 20 years, which met their age profiles; however, two-thirds had been in nursing less than 10 years and 91% had been with their current employer fewer than 10 years. This reflected the transient nature of nurses, where non-nationals returned home and Saudi women largely left paid employment at 40 years of age. Nurse occupations signified the nature of the hospitals: obstetrics, intensive care, psychiatric, medical and emergency nurses, while the majority of respondents were staff nurses. Thus, the personal and job characteristics of the study sample reflects the norm for Saudi Arabia and therefore the results for the Ha'il region reflect the general Saudi categorisation for the nursing profession. Comparison analysis showed greater meaning of relationships between the selected cohorts. Predominantly, respondents were Saudi, held nursing diplomas and were aged less than 40 years. They had nursing careers of less than 10 years and had therefore been with their hospital employer fewer than 10 years.

#### **6.2 Descriptive Analysis**

As well as defining the characteristics of the participants, the first research question asked about job stress, burnout, job satisfaction and intention to stay or leave. These measures formed part of the study questionnaire and are addressed in turn.

### 6.2.1 Job stress results.

The job stress items in part 3 of the questionnaire were based on a four-point Likert scale using French et al.'s (2000) Expanded Nursing Stress Scale. This was recently used by Saleh et al. (2013) in Dammam. All 49 items were rated on a four-point frequency rating of: 1) never stressful, 2) occasionally stressful, 3) frequently stressful and 4) always stressful. The results for the analysis are shown in Table 6.10. Percentages relate to N=297. Invalid responses relate to a lack of respondents' clarity in choice.

Table 6.10

#### *Results of job stress perceptions*

Job stress	Never stressful %	Occasionally stressful %	Frequently stressful %	Extremely stressful %	Invalid response %
1. Performing procedures that patients experience as painful.	31.3	58.0	7.3	2.3	1.0
2. Feeling inadequately prepared to help with the emotional needs of a patient's family.	39.7	49.0	7.7	2.7	1.0
3. Lack of opportunity to talk openly with other personnel about problems in the work setting.	22.7	55.0	16.7	4.7	1.0
4. Conflict with a colleague.	51.0	37.0	7.7	3.3	1.0
5. Inadequate information from a physician regarding the medical condition of a patient.	27.3	56.7	12.0	3.0	1.0
6. Patients' members making unreasonable demands.	18.0	48.0	22.0	10.7	1.3
7. Being sexually harassed.	74.3	11.7	2.3	10.7	1.0
8. Feeling helpless in the case of a patient who fails to improve.	33.7	50.7	10.3	4.3	1.0
9. Being asked a question by a patient for which I do not have a satisfactory answer.	25.7	59.0	11.3	3.0	1.0
10. Lack of opportunity to share experiences and feelings with other personnel in the work setting.	33.7	48.7	11.7	5.0	1.0
11. Unpredictable staffing and scheduling.	32.7	37.3	18.7	10.3	1.0
12. A physician ordering what appears to be inappropriate treatment for a patient.	32.0	46.3	14.0	6.3	1.3
13. Patients' families making unreasonable demands.	19.3	46.0	24.3	9.0	1.3

14. Experiencing discrimination because of race or my gender.	49.0	29.0	10.0	10.7	1.3
15. Listening or talking to a patient about his/her approaching death.	52.7	31.3	8.3	6.3	1.3
16. Fear of making a mistake in treating a patient.	26.7	48.3	13.0	10.3	1.7
17. Feeling inadequately prepared to help with the emotional needs of a patient.	49.0	43.3	6.0	0.3	1.3
18. Lack of an opportunity to express my negative feelings towards patients to the other personnel in the unit.	39.7	49.0	7.3	2.7	1.3
19. Difficulty in working with a particular nurse (or nurses).	34.7	49.3	8.7	5.7	1.7
20. Not enough time to provide emotional support to the patient.	31.7	46.7	14.3	6.0	1.3
21. A physician not being present in a medical emergency.	36.3	40.7	13.3	8.3	1.3
22. Being blamed for anything that goes wrong.	34.7	38.3	14.3	11.3	1.3
23. The death of a patient.	36.0	38.0	12.7	11.7	1.7
24. Disagreement concerning the treatment of a patient.	40.3	45.7	10.0	2.7	1.3
25. Feeling inadequately trained for what I have to do.	51.7	35.0	8.7	3.0	1.7
26. Lack of support from my immediate supervisor.	30.7	52.7	8.0	7.0	1.7
27. Criticism of my work.	38.7	46.3	9.7	3.7	1.7
28. Not enough time to complete all of my nursing tasks.	40.0	42.7	11.7	4.0	1.7
29. Not knowing what a patient or patients' family should be told about the patient's condition and its treatment.	37.7	48.3	9.3	2.7	2.0
30. Being the one that has to deal with patients' family.	29.3	50.7	13.3	5.0	1.7
31. Having to deal with abusive and violent patients.	21.7	47.0	17.7	12.0	1.7
32. Being exposed to health and safety hazards.	19.3	38.7	20.7	19.3	2.0
33. The death of a patient with whom you developed a close relationship.	52.0	29.3	9.0	7.7	2.0
34. Making a decision concerning a patient when the physician is unavailable.	36.7	46.0	10.7	4.7	2.0
35. Being in charge with inadequate experience.	41.0	40.7	11.0	5.3	2.0
36. Lack of support by nursing administrators.	28.7	43.7	10.0	15.7	2.0
37. Too many non-nursing tasks required, such as clerical work.	24.3	38.3	17.7	17.7	2.0

38. Not enough staff to adequately cover the unit.	11.0	33.3	28.3	25.3	2.0
39. Uncertainty regarding the operation and functioning of specialised equipment.	30.0	49.7	13.7	4.3	2.3
40. Not enough time to respond to the needs of patients' families.	28.7	53.0	13.3	3.0	2.0
41. Being held accountable for things over which I have no control.	31.0	41.0	16.7	9.0	2.3
42. Physician(s) not being present when a patient dies.	56.7	23.0	8.3	10.0	2.0
43. Having to organise doctors' work.	33.7	42.0	15.0	7.3	2.0
44. Lack of support from other healthcare administrators.	25.0	49.0	14.7	9.3	2.0
45. Difficulty in working with nurses of the opposite sex.	51.7	32.7	8.7	4.3	2.7
46. Demands of patient classification system.	34.0	49.3	9.3	5.3	2.0
47. Watching a patient suffer.	23.0	41.3	23.0	10.3	2.3
48. Having to work through breaks.	29.3	44.3	16.0	8.3	2.0
49. Having to make decisions under pressure.	24.7	47.3	13.7	10.7	3.7

Table 6.10 presents the nurses' responses (and non-responses) to the questions in the job stress measure. The least stressful situations for nurses were *sexual harassment* (74% were never stressed), *physicians not being present when a patient dies* (56.7% were never stressed) and *listening or talking to a patient about his/her approaching death* (52.7%). In contrast, extremely stressful conditions were *not enough staff to adequately cover unit* (25.3% were at times extremely stressed), *being exposed to health and safety issues* (19.3% were at times extremely stressed) and *too many non-nursing tasks* (17.7% were also extremely stressed).

The remainder of the statistical analysis is presented in Table 6.11.

Table 6.11

*Job stress responses: statistical analysis*

Job stress	N	Mean	St. dev.
1. Performing procedures that patients experience as painful.	297	1.80	.67
2. Feeling inadequately prepared to help with the emotional needs of a patient's family.	297	1.73	.72
3. Lack of opportunity to talk openly about problems in the work setting.	297	2.03	.77
4. Conflict with a colleague.	297	1.63	.77
5. Inadequate information from a physician regarding the medical condition of a patient.	297	1.91	.72
6. Patients' family members making unreasonable demands.	296	2.29	1.01
7. Being sexually harassed.	297	1.49	.97
8. Feeling helpless in the case of a patient who fails to improve.	297	1.85	.77
9. Being asked a question by a patient for which I do not have a satisfactory answer.	297	1.92	.70
10. Lack of opportunity to share experiences and feelings.	297	1.88	.80
11. Unpredictable staffing and scheduling.	297	2.07	.97
12. A physician ordering what appears to be inappropriate treatment for a patient.	296	1.95	.85
13. Patients' families making unreasonable demands.	296	2.23	.87
14. Experiencing discrimination because of race or my gender.	296	1.82	1.00
15. Listening or talking to a patient about his/her approaching death.	296	1.68	.88
16. Fear of making a mistake in treating a patient.	295	2.09	.95
17. Feeling inadequately prepared to help with the emotional needs of a patient.	296	1.57	.62
18. Lack of an opportunity to express to personnel my negative feelings towards patients.	296	1.73	.72
19. Difficulty in working with a particular nurse (or nurses).	295	1.92	1.42
20. Not enough time to provide emotional support to the patient.	296	1.95	.84
21. A physician not being present in a medical emergency.	296	1.94	.92
22. Being blamed for anything that goes wrong.	296	2.02	.98
23. The death of a patient.	295	2.07	1.52
24. Disagreement concerning the treatment of a patient.	296	1.75	.75
25. Feeling inadequately trained for what I have to do.	295	1.62	.77
26. Lack of support from my immediate supervisor.	295	1.91	.82
27. Criticism of my work.	295	1.78	.77
28. Not enough time to complete all of my nursing tasks.	295	1.79	.80
29. Not knowing what a patient or family should know about the condition and treatment.	294	1.80	.91
30. Being the one that has to deal with patients' families.	295	1.94	.80
31. Having to deal with abusive and violent patients.	295	2.20	.92

Job stress	N	Mean	St. dev.
32. Being exposed to health and safety hazards.	294	2.42	1.05
33. The death of a patient with whom you developed a close relationship.	294	1.72	.93
34. Making a decision concerning a patient when the physician is unavailable.	294	1.83	.80
35. Being in charge with inadequate experience.	294	1.80	.84
36. Lack of support by nursing administrators.	294	2.13	1.01
37. Too many non-nursing tasks required, such as clerical work.	294	2.29	1.03
38. Not enough staff to adequately cover the unit.	294	2.69	.98
39. Uncertainty regarding the operation and functioning of specialised equipment.	293	1.92	.79
40. Not enough time to respond to the needs of patients' families.	294	1.90	.74
41. Being held accountable for things over which I have no control.	293	2.04	.93
42. Physician(s) not being present when a patient dies.	294	1.71	1.00
43. Having to organise doctors' work.	294	1.96	.89
44. Lack of support from other healthcare administrators.	294	2.09	.88
45. Difficulty in working with nurses of the opposite sex.	292	1.72	1.44
46. Demands of patient classification system.	294	1.86	.80
47. Watching a patient suffer.	293	2.21	.92
48. Having to work through breaks.	294	2.03	.90
49. Having to make decisions under pressure.	289	2.13	.94

### 6.2.2 Burnout results.

Table 6.12 shows the percentage results for part 4 of the survey (burnout). This was part of the first research question. The burnout scale includes 21 items, and all items were rated on a seven-point frequency rating scale of: 0) never, 1) a few times a year or less, 2) once a month or less, 3) a few times a month, 4) once a week, 5) a few times a week and 6) every day. Again, the percentages in the analysis refer to the full sample of 297 nurses.



Table 6.12

*Results of burnout perceptions*

Burnout	Never (%)	A few times a year %	Once a month or less %	A few times a month %	Once a week %	A few times a week %	Every day %	Invalid response %
1. I feel emotionally drained from my work.	25.3	20.3	12.3	10.3	4.7	13.7	10.0	3.3
2. I feel used up at the end of the workday.	7.0	12.3	8.7	14.7	7.0	18.3	28.3	3.7
3. I feel fatigued when I get up in the morning and have to face another day on the job.	27.0	14.3	7.0	13.3	7.0	12.7	15.0	3.7
4. I can easily understand how my patients feel about things.	45.7	14.0	10.7	9.0	6.7	4.7	5.7	3.7
5. I feel I treat some patients as if they were impersonal objects.	21.3	14.0	9.7	10.7	10.7	11.7	17.7	4.3
6. Working with people all day is really a strain for me.	33.3	22.0	7.7	10.0	4.3	7.0	12.0	3.7
7. I deal very effectively with the problems of my patients.	34.0	14.7	7.7	11.7	5.7	10.0	12.7	3.7
8. I feel burned out from my work.	27.0	19.0	12.7	16.3	5.0	9.3	6.7	4.0
9. I feel I am positively influencing other people's lives through my work.	73.0	8.0	4.7	4.0	1.7	2.0	2.7	4.0
10. I've become more callous towards people since I took this job.	43.0	14.7	8.0	7.3	3.3	8.0	11.7	4.0
11. I worry that this job is hardening me emotionally.	42.3	19.0	10.0	7.7	4.0	5.0	8.3	3.7
12. I feel very energetic.	74.7	6.7	5.0	4.7	1.7	2.0	1.3	4.0
13. I feel frustrated by my job.	33.3	22.0	10.3	10.3	3.7	10.3	6.0	4.0
14. I feel I am working too hard on my job.	12.7	11.0	4.7	12.7	5.3	9.7	39.7	4.3
15. I do not really care what happens to some patients.	11.3	7.0	8.3	10.3	3.7	10.7	44.0	4.7
16. Working with people directly puts too much stress on me.	11.7	9.0	6.3	12.0	4.0	17.7	35.3	4.0
17. I can easily create a relaxed atmosphere with my patients.	9.0	6.7	6.7	8.7	5.0	25.3	35.0	3.7
18. I feel exhilarated after working closely with my patients.	5.7	8.7	6.0	10.7	6.7	18.3	40.0	4.0
19. I have accomplished many worthwhile things in my job.	12.7	10.3	6.7	9.3	6.7	14.7	35.7	4.0
20. In my work, I deal with emotional problems very calmly.	8.0	7.7	6.3	13.0	7.0	13.7	40.3	4.0
21. I feel that patients blame me for some of their problems.	5.0	11.7	9.0	9.7	5.3	14.7	41.0	3.7

Table 6.12 displays the percentage results from the 21-question burnout part of the survey. Of interest in the results, the participants strongly (74.7%) denied that they felt energetic and strongly denied that they thought they influenced other people's lives through their work. The next majority rejection (45.7%) was that respondents easily empathised with their patients. There were mixed reactions to the statement regarding *not caring about patients* (44% reported that this occurred every day), perceptions of *patients blaming nurses for their problems* (41% every day), *exhilaration after working closely with patients* (40% every day) and a *calm response to emotional problems* (40% every day). These results may appear counterbalancing. Invalid responses relate to a lack of respondents' clarity in choice. The statistical results are shown in Table 6.13. The calculations are for the full sample of 297 nurses.

Table 6.13

*Burnout responses: statistical analysis*

Burnout	N	Mean	St. dev.
1. I feel emotionally drained from my work.	290	3.31	2.10
2. I feel used up at the end of the workday.	289	4.77	2.04
3. I feel fatigued when I get up in the morning and have to face another day on the job.	289	3.59	2.25
4. I can easily understand how my patients feel about things.	289	2.52	1.89
5. I feel that I treat some patients as if they were impersonal objects.	287	3.85	2.22
6. Working with people all day is really a strain for me.	289	2.99	2.14
7. I deal very effectively with the problems of my patients.	289	3.22	2.22
8. I feel burned out from my work.	288	3.08	1.92
9. I feel I am positively influencing other people's lives through my work.	288	1.65	1.43
10. I have become more callous towards people since I took this job.	288	2.83	2.20
11. I worry that this job is hardening me emotionally.	289	2.59	1.97
12. I feel very energetic.	288	1.58	1.30
13. I feel frustrated by my job.	288	2.83	1.96
14. I feel I am working too hard on my job.	287	4.83	2.29
15. I do not really care what happens to some patients.	287	5.11	2.44
16. Working with people directly puts too much stress on me.	288	4.90	2.20
17. I can easily create a relaxed atmosphere with my patients.	289	5.18	2.05
18. I feel exhilarated after working closely with my patients.	288	5.28	1.98
19. I have accomplished many worthwhile things in my job.	288	4.81	2.25
20. In my work, I deal with emotional problems very calmly.	288	5.14	2.07
21. I feel that patients blame me for some of their problems.	289	5.15	2.06

Further statistical analysis of responses to the survey (part 4: burnout, 21 questions) is presented in Table 6.13. The mean ( $\mu$ ) of a seven-point Likert scale is neutral at 3.5, and the standard deviations are ( $\sigma$ ) noted.

### 6.2.3 Job satisfaction results.

Job satisfaction was measured as part of the first research question and part 5 of the survey. The scale included seven items, which measured registered nurses' job satisfaction in their work environment on a five-point Likert scale. Table 6.14 shows the percentage results for job satisfaction. The percentages in the analysis refer to the full sample of 297 nurses.

Table 6.14

*Results of job satisfaction perceptions*

Job satisfaction	Strongly agree %	Agree %	Neither agree nor disagree %	Disagree %	Strongly disagree %	Invalid response %
1. I find real enjoyment in my job.	3.0	4.0	18.3	57.3	13.3	4.0
2. I consider my job rather unpleasant.	9.7	15.0	22.3	30.3	18.7	4.0
3. I am often bored with my job.	11.0	18.7	17.0	31.0	18.7	3.7
4. I am fairly well satisfied with my job.	3.0	8.7	13.0	64.7	7.0	3.7
5. I definitely dislike my job.	12.0	6.3	10.0	28.3	39.3	4.0
6. Each day on my job seems like it will never end.	8.3	19.7	22.3	24.7	20.7	4.3
7. Most days I am enthusiastic about my job.	4.0	7.3	22.0	51.7	11.0	4.0

Table 6.14 shows no majority responses in the strongly agree category; however, the highest (12%) was *I definitely dislike my job*. In the strongly disagree category, the same question, *I definitely dislike my job*, engendered a 39.3% response, indicating high diversity in answering this question. The next question that drew a high strongly disagree response (20.7%) was *Each day on my job seems like it will never end*. Other strongly disagree responses were relatively minor (less than one respondent in five). Due to a perceived contradictory response through four negative and three positive job satisfaction questions, the measures of strongly agree and strongly disagree were used as a proxy for the nurses' overall response. Table 6.15 continues the statistical analysis.

Table 6.15

*Job satisfaction responses: statistical analysis*

Job satisfaction	N	Mean	Std. dev.
1. I find real enjoyment in my job.	288	3.77	.85
2. I consider my job rather unpleasant.	288	3.35	1.24
3. I am often bored with my job.	289	3.29	1.29
4. I am fairly well satisfied with my job.	289	3.66	.86
5. I definitely dislike my job.	289	3.81	1.38
6. Each day on my job seems like it will never end.	287	3.32	1.28
7. Most days I am enthusiastic about my job.	288	3.61	.93

The statistical analysis of responses to the survey (part 5: job satisfaction, five questions) is presented in Table 6.15. The mean ( $\mu$ ) of the five-point Likert scale is neutral at 2.5, and the standard deviations ( $\sigma$ ) are noted.

#### 6.2.4 Intention to leave results.

The final measure in the first research question and part 6 of the survey questions related to intention to leave. The scale included two items that measured nurses' intention to leave the organisation. Again, a five-point Likert scale was used. Table 6.16 presents the percentage results for this factor, including non-responses. The percentages in the analysis refer to the full sample of 297 nurses.

Table 6.16

*Results of intention to leave perceptions*

Intention to leave	Strongly agree (%)	Agree (%)	Neither agree nor disagree (%)	Disagree (%)	Strongly disagree (%)	Invalid response (%)
1. I plan to leave my hospital as soon as possible.	32.0	24.3	18.3	16.0	5.3	4.0
2. I plan to stay in my hospital as long as possible.	11.0	44.3	20.7	12.0	7.3	4.7

The responses of the cohort of 297 nurses to the *intention to leave* section of the questionnaire (part 6) are summarised in Table 6.16, which shows that nearly one-third of the nurses intended to leave their hospital employer as soon as possible. This is supported by the same question receiving a 7.3 response to the negative (strongly disagree about leaving). The statistical analysis continues in Table 6.17.

Table 6.17

*Intention to leave: statistical analysis*

Intention to leave	N	Mean	Std. dev.
1. I plan to leave my hospital as soon as possible.	288	2.37	1.28
2. I plan to stay in my hospital as long as possible.	286	2.58	1.09

The statistical analysis of responses to the survey (part 6: intention to leave, two questions) is presented in Table 6.17. The mean ( $\mu$ ) of the five-point Likert scale is neutral at 2.5, and the standard deviations ( $\sigma$ ) are noted.

### **6.3 Exploratory Factor Analysis**

Factor analysis was utilised to assist in answering research question two identifying the links between job stress, burnout and job satisfaction for nurses. Factor analysis aims to bring inter-correlated variables together under more general underlying variables. Due to the nature of this quantitative study, exploratory factor analysis allows the introduction of other dimensions to the study through its ability to analyse the survey items differently to the independent analysis for each model and its measures. Thus, the three models for job stress, burnout and job satisfaction, as well as the independent variable intention to leave, have items that a respondent may interpret as similar or perhaps identical. Exploratory factor analysis is useful in drawing out themes (factors) that may further illuminate the initial model findings, and it may contribute information to explain inconsistencies between the measures (Valentine, Nembhard & Edmondson, 2011).

Factor analysis takes into account assumptions that should be held for its results to be reliable. The variables should correlate, but not so highly that they result in multicollinearity. The sample must be adequate to give substantive inferences. This was checked by the KMO measure of sampling adequacy (0–1). Values above 0.5 indicate sampling adequacy, with values closer to one showing a pattern of correlation. This study showed results of the KMO test of 0.891; hence, exploratory factor analysis should extract distinct variables. Bartlett's measures test that the null hypothesis of the original correlation matrix is an identity matrix. For these data, Bartlett's test is highly significant ( $p < 0.05$ ); therefore, factor analysis is appropriate (see Table 6.18).

Table 6.18

*Kaiser-Mayer-Olkin and Bartlett's test*

KMO and Bartlett's test		
KMO measure of sampling adequacy		.846
Bartlett's test of sphericity	Approx. Chi-Square	10506.840
	Df	3081
	Sig.	.000

**6.3.1 Factor extraction.**

The extraction method employed was the principal components analysis method, which is used to identify and interpret the dependence that exists among the variables, and to examine relationships that may exist among individuals (Timm, 2002). The method finds a linear combination that accounts for the greatest variation in the data. It then finds a variable that accounts for a larger proportion of the remaining variation but is not correlated with the first variable, continuing until all components satisfying the condition are extracted from the data. Principal component analysis assumes that there is no error variance; consequently, the total variance of the variables can be accounted for by means of its factor. This assumption initially assigns one to all communalities (Bartholomew, Knott & Moustaki, 2011).

The extraction of principal components is calculated using Eigen values of the matrix, and only value-adding components are retained. Timm (2002) advised using either the geometric mean or the arithmetic mean of the sample Eigen values, as the geometric mean adjusts for outliers in the sample estimates. In case of simple means, only components whose estimated variance is larger than the average variance of all of the primary variables should be retained. The extracted components should be those that can be used with minimum loss of variation and that account for 60–80% of the total variance. To assist in the assessment of the components to retain a construct, a scree plot was constructed to compare the estimated

Eigen values with the number of components. For this study, only components with high communalities and positive Eigen values were extracted. Varimax rotation was carried out to improve the interpretability of the factors. The rotation minimises the number of variables that have high loadings on each given factor (Bartholomew et al., 2011). Table 6.19 shows the results after loading factors.

Table 6.19  
*Loadings of exploratory factors*

Item	Component										
	1	2	3	4	5	6	7	8	9	10	11
Performing procedures that patients experience as painful.					.550						
Feeling inadequately prepared to help with the emotional needs of a patient's family.					.649						
Lack of opportunity to talk openly with other personnel about problems in the work setting.					.470						
Conflict with colleagues.	.481										
Inadequate information from a physician regarding the medical condition of a patient.					.542						
Patients' members making unreasonable demands.					.416						
Being sexually harassed.	.725										
Feeling helpless in the case of a patient who fails to improve.					.388						
Being asked a question by a patient for whom I do not have a satisfactory answer.						.542					
Lack of opportunity to share experiences and feelings with other personnel in the work setting.									.570		
Unpredictable staffing and scheduling.	.420										
A physician ordering what appears to be inappropriate treatment for a patient.	.662										
Patients' families making unreasonable demands.	.402										
Experiencing discrimination because of race or my gender.	.619										
Listening or talking to a patient about his/her approaching death.	.535										
Fear of making a mistake in treating a patient.	.436										
Prepared to help with the emotional needs of a patient.	.525										
Lack of an opportunity to express to the other personnel on the unit my negative feelings towards patients.						.464					
Difficulty in working with a particular nurse (or nurses).						.485					
Not enough time to provide emotional support to the patient.						.471					
A physician not being present in a medical emergency.	.587										
Being blamed for anything that goes wrong.	.645										
The death of a patient.										.549	
Disagreement concerning the treatment of a patient.	.606										
Feeling inadequately trained for what I have to do.	.608										
Lack of support from my immediate supervisor.									.617		
Criticism of my work.	.529										
Not enough time to complete all of my nursing tasks.	.406										



Not knowing what a patient's family should be told about the patient's condition and its treatment.	.382		
Being the one that has to deal with patients' families.		.372	
<hr/>			
Having to deal with abusive and violent patients.		.627	
Being exposed to health and safety hazards.		.588	
The death of a patient with whom you developed a close relationship.	.432		
Making a decision concerning a patient when the physician is unavailable.	.554		
Being in charge with inadequate experience.	.641		
Lack of support by nursing administrators.	.524		
Too many non-nursing tasks required, such as clerical work.		.617	
Not enough staff to adequately cover the unit.		.641	
Uncertainty regarding the operation and functioning of specialised equipment.	.329		
Not enough time to respond to the needs of patients' families.			.367
Being held accountable for things over which I have no control.	.566		
Physician(s) not being present when a patient dies.	.764		
Having to organise doctors' work.		.465	
Lack of support from other healthcare administrators.		.480	
Difficulty in working with nurses of the opposite sex.			.411
Demands of the patient classification system.		.452	
Watching a patient suffer.		.444	
Having to work through breaks.		.452	
Having to make decisions under pressure.	.464		
Feel emotionally drained from my work.	.534		
I feel used up at the end of the workday.	.667		
I feel fatigued when I get up in the morning and have to face another day on the job.	.690		
I can easily understand how my patients feel about things.		.650	
I feel that I treat some patients as if they were impersonal objects.			.719
Working with people all day is really a strain for me.	.549		
I deal very effectively with the problems of my patients.		.642	
I feel burned out from my work.	.753		
I feel that I am positively influencing other people's lives through my work.		.673	
I have become more callous towards people since I took this job.			.614
I worry that this job is hardening me emotionally.	.602		
I feel very energetic.		.512	
I feel frustrated by my job.	.698		
I feel that I am working too hard on my job.			.471
I do not really care what happens to some patients.		-.336	
Working with people directly puts too much stress on me.	.595		

(continued)

Item	Component										
	1	2	3	4	5	7	8	9	10	11	
(continued)											
I can easily create a relaxed atmosphere with my patients.				.742							
I feel exhilarated after working closely with my patients.				.600							
I have accomplished many worthwhile things in my job.				.646							
In my work, I deal with emotional problems very calmly.				.686							
I feel that patients blame me for some of their problems.		.411									
I find real enjoyment in my job.						-.302					
I consider my job rather unpleasant.						.731					
I am often bored with my job.						.679					
I am fairly well satisfied with my job.											-.567
I definitely dislike my job.						.771					
Each day on my job seems like it will never end.						.623					
Most days I am enthusiastic about my job.				-.315							
I plan to leave my hospital as soon as possible.									.489		
I plan to stay in my hospital as long as possible.									-.495		

Table 6.19 shows the results after loading factors. The factors are interpreted as highly related, hence the use of exploratory factor analysis to extract items that load onto one factor. After running the data in the first iteration, communalities less than 0.3 were deleted and the analysis was run again until only those more than 0.3 were left. After running the data, the 78 items loaded to 11 factors. There was 100% loading in each of the four main factors. Job stress had 49 items and 24 loaded onto factor 1, six loaded onto factor 5, five loaded onto factor 6, two loaded onto factor 9 and one loaded onto factor 10. Burnout had 21 items: nine loaded onto factor 2, eight loaded onto factor 4, while three loaded onto factor 8. Intention to leave had two items, which loaded onto factor 10. Job satisfaction had seven items: five loaded onto factor 7, while one loaded onto factor 11.

Factor 1 has items that relate to insecurity and doubt in judgement; it is thus termed *professional demands*. Factor 2 has items that relate to tiredness, workload and inability to engage with work; therefore, it is termed *overwork*. Factor 3 has items such as extra tasks (e.g. dealing with patients' families and safety issues such as violent patients, entitled *extraneous workload*). Factor 4 had items that relate to job satisfaction, such as creating a

relaxing atmosphere and positively influencing other people, so it is termed the *confident approach*. Factor 5 had items that asked if the nurse was able to fulfil the demands made. The items in the factor included feeling inadequately prepared, receiving inadequate information from the physician and patients' family members making unreasonable demands, so this is *feeling inadequate*. Factor 6 causes consequences through its inability to appropriately communicate with colleagues, patients or supervisors: *communications*. Factor 7 had five loadings regarding emotional attachment to the job; thus, it is termed *attitude*. Factor 8 had three loadings: two on relationships with patients and one on working conditions. This factor is therefore *withdrawal*. Factor 9 had two loadings: one on lack of opportunities to share experiences with other staff, and lack of support from supervisor; this is termed *disengagement*. Factor 10 had one loading on the death of a patient and two on intention to leave; it is thus termed *employment decisions*. Factor 11 had two loadings: one on job satisfaction and one on difficulties working with the opposite sex; thus, *culture*.

#### **6.4 Reliability Testing**

To prepare the data for analysis, reliability tests using Cronbach's alpha coefficients were conducted with mean scores for each factor's measure. The normality of data distribution was then assessed by examining the standardised skewness and kurtosis. The following key assumptions in regression analyses were also assessed: normality of residuals, homoscedasticity, linearity and multicollinearity (Field, 2009). As noted, Cronbach's alpha coefficient was determined for each subscale (see Table 6.20).

Table 6.20

*Internal consistency of scales*

Variable	Scale/subscale	Number of items	Cronbach's $\alpha$
Job stress	Death and dying	7	.743
	Conflict with physician	3	.663
	Inadequate preparation	3	.615
	Problem with peers	5	.653
	Problem with supervisor	6	.783
	Workload	9	.801
	Uncertainty on treatment	9	.768
	Patients and family	5	.674
	Discrimination	2	.516
Burnout	Emotional exhaustion	8	.809
	Depersonalisation	5	.568
	Personal accomplishment	8	.818
Job satisfaction		5	.706
Intention to leave		2	.488

Table 6.20 shows low reliability estimates (Cronbach's  $\alpha < .70$ ) in some cases. Scales with low reliabilities included: job stress subscales (conflict with physicians, inadequate preparation, problem with peers, parents and family, discrimination), burnout scale (depersonalisation) and intention to leave. As the sample size was over 200 ( $N=297$ ), the normality of data distribution through the standardised skewness and kurtosis coefficients was not warranted (Tabachnick & Fidell, 2007). Tabachnick and Fidell (2007) indicated that issues of underestimation of variance due to problematic skewness and kurtosis disappear with samples of 200 or more. Thus, it was deemed unnecessary for score transformations in the data.

The statistics related to skewness, kurtosis and normality were presented for the purpose of providing a comprehensive descriptive analysis of the data (see Table 6.21).

Table 6.21

*Normality testing*

Variables	M	SD	Skewness	Kurtosis	Kolmogorov–Smirnov (D)*
Intention to leave	2.48	0.96	2.37	-2.48	.170
Job satisfaction	3.51	0.83	-2.64	0.02	.091
Stress (death and dying)	1.74	0.68	8.52	3.97	.166
Stress (conflict with physician)	1.84	0.63	6.11	3.80	.146
Stress (inadequate preparation)	1.74	0.52	5.35	3.83	.157
Stress (problem with peers)	1.82	0.54	4.63	1.40	.125
Stress (problem with supervisor)	1.99	0.65	4.54	0.47	.133
Stress (workload)	2.08	0.56	3.16	-0.55	.102
Stress (uncertainty on treatment)	1.93	0.52	5.47	1.60	.113
Stress (parents and family)	2.14	0.60	3.66	0.53	.106
Stress (discrimination)	1.65	0.81	8.53	1.87	.251
Burnout (emotional exhaustion)	3.41	1.37	2.35	-1.95	.076
Burnout (depersonalisation)	2.30	1.10	6.13	1.05	.119

\*p&lt;.001

**6.4.1 Regression analysis.**

The following key assumptions in regression analyses were assessed: normality of residuals, homoscedasticity, linearity and multicollinearity.

The normality of residuals signified that the differences between the expected values as predicted by the model and the observed data were mostly zero or close to zero (Field, 2009). To test this assumption, the regression standardised residuals were plotted in a histogram (see Figure 6.1) and a normal Q-Q plot. The graphical plots were obtained using the linear regression in SPSS.

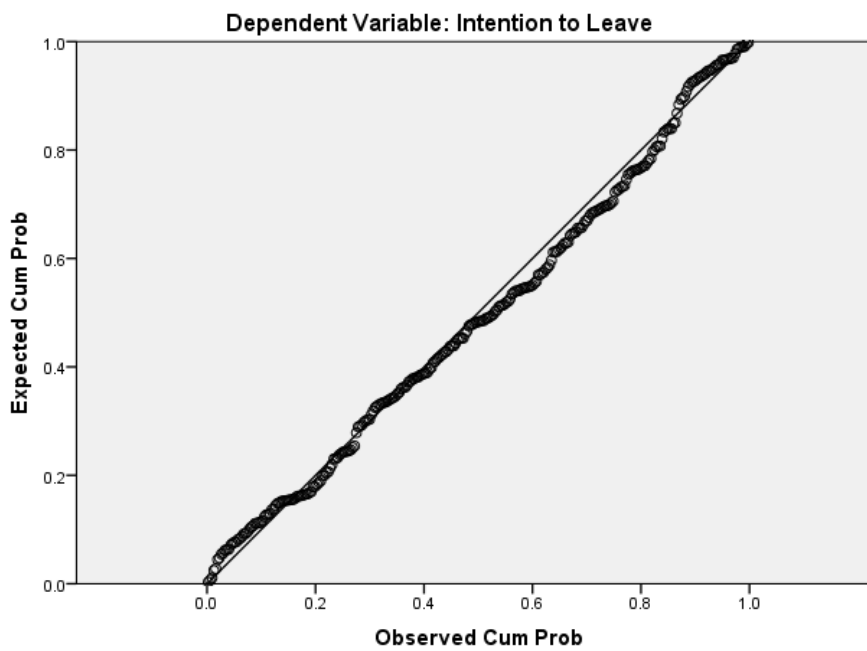
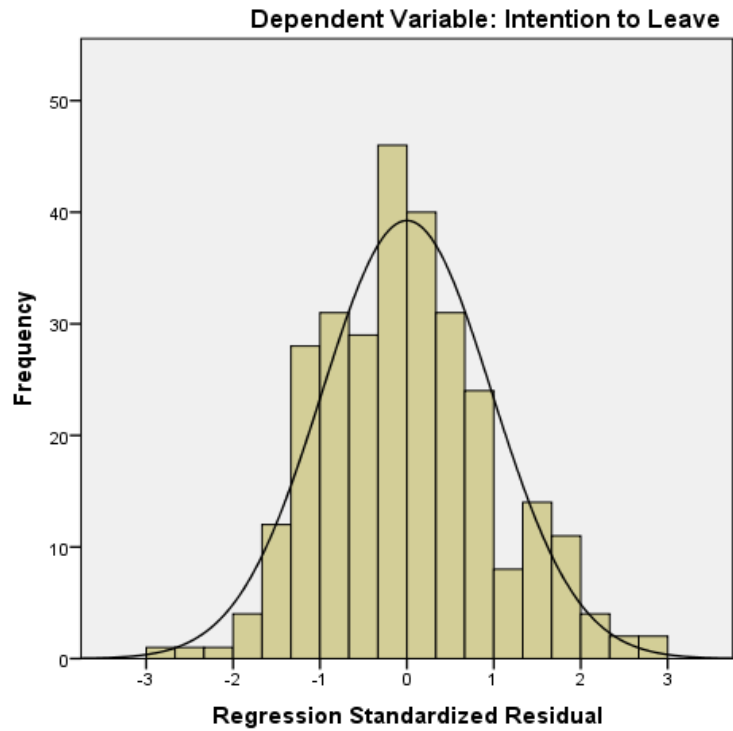


Figure 6.1: Standardised residual scores: intention to leave

The histogram in Figure 6.1 reflects a normal distribution, and the P-P plot similarly indicates that the residuals are not significantly deviant from the line representing the expected values of normally distributed residuals. The Kolmogorov–Smirnov coefficient for

the residuals also indicated that the distribution did not significantly differ from normal ( $D(289)=.050, p=.078$ ). Thus, the assumption of the normality of residuals can be made.

#### 6.4.2 Homoscedasticity.

Homoscedasticity is an assumption that is tested to find whether the residuals at each level of the predictors have the same variance (Field, 2009). To examine this assumption, a scatterplot of the standardised regression residual and predicted values was generated (see Figure 6.2). The figure shows that the points are randomly scattered and more or less evenly dispersed throughout the plot, indicating homoscedasticity.

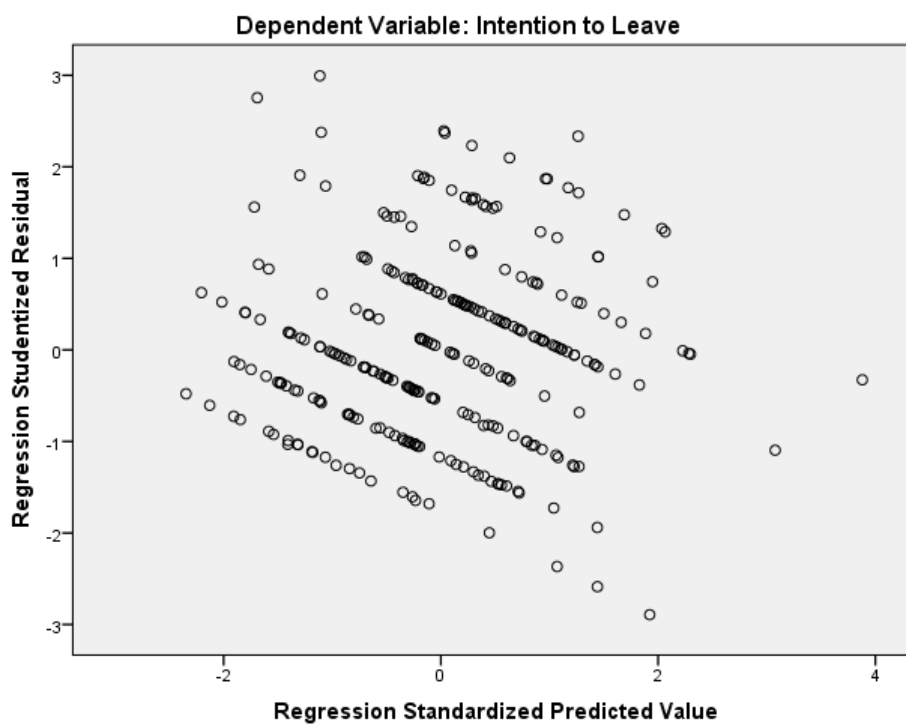


Figure 6.2: Scatterplot of standardised and predicted values of intention to leave

#### 6.4.3 Linearity.

Linearity refers to the relationship being modelled (Field, 2009). This implies that the mean values of the outcome variable (intention to leave) for each increment of the predictors more or less lie along a straight line. This assumption was assessed by generating scatterplots between the standardised intention to leave scores and each of the relevant predictor variables

(see Figures 6.3–6.9). All of the relationships in the scatterplots reflect patterns that are characteristic of a linear relationship. Thus, the linearity assumption was met.

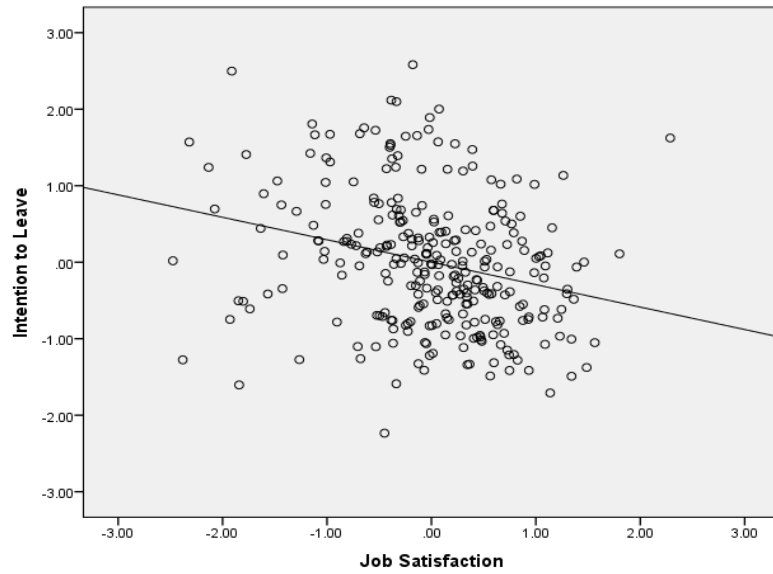


Figure 6.3: Scatterplot (intention to leave and job satisfaction)

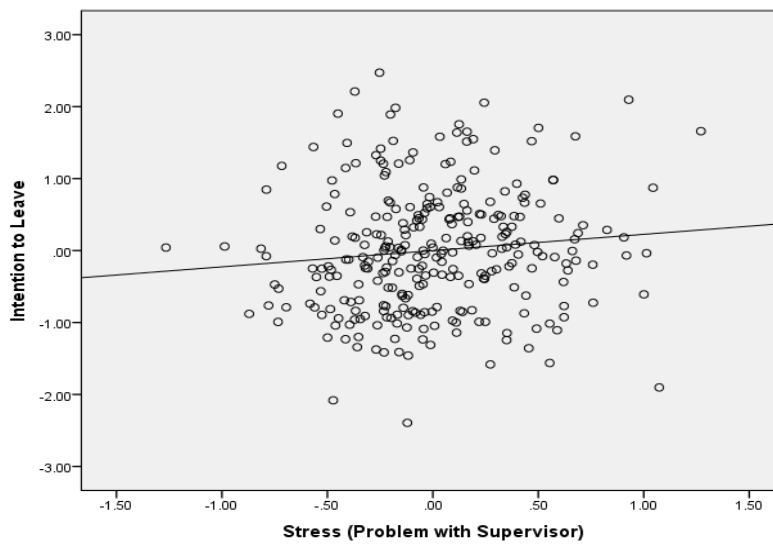


Figure 6.4: Scatterplot (intention to leave and stress: problem with supervisor)



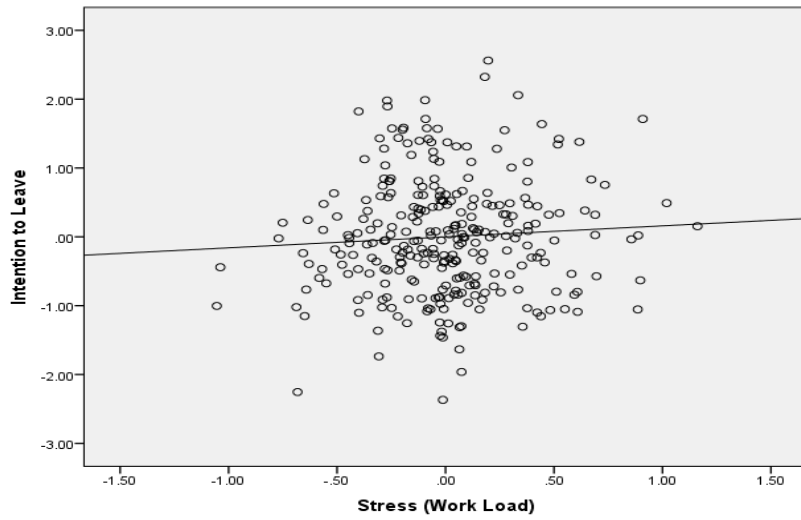


Figure 6.5: Scatterplot (intention to leave and stress: workload)

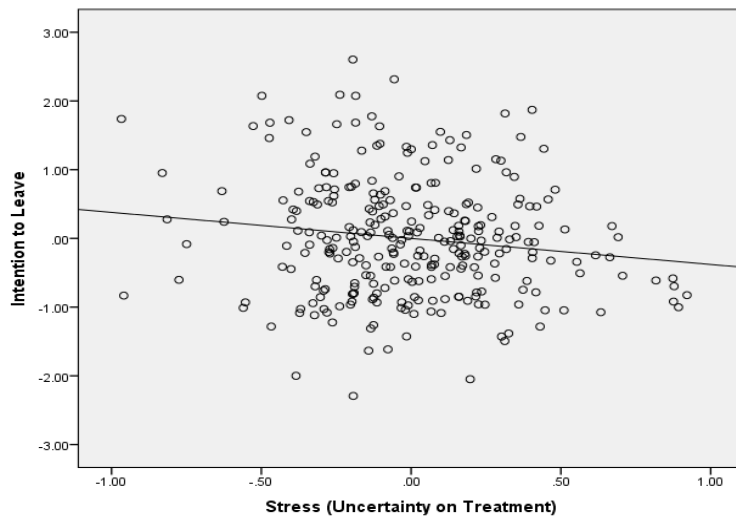


Figure 6.6: Scatterplot (intention to leave and stress: uncertainty on treatment)

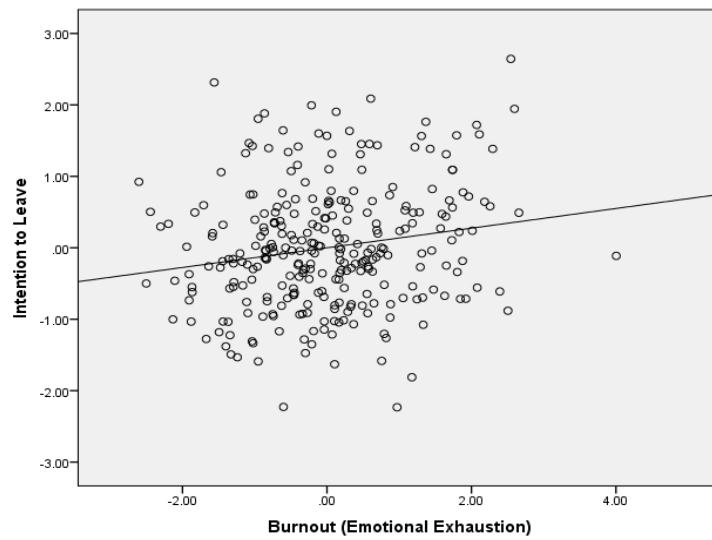


Figure 6.7: Scatterplot (intention to leave and burnout: emotional exhaustion)

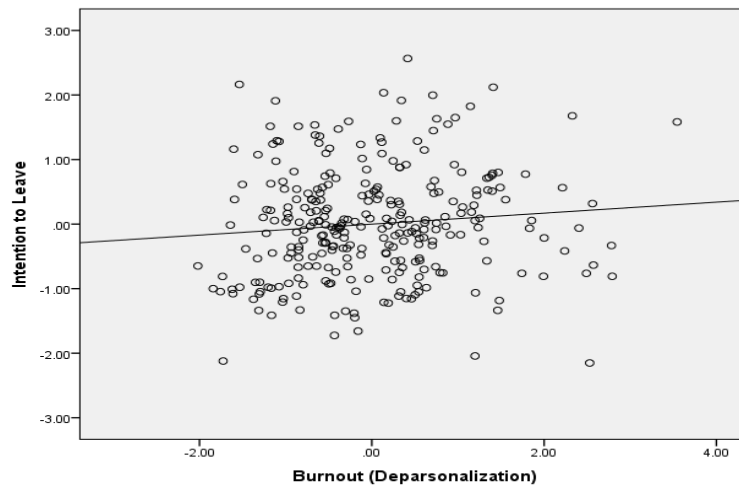


Figure 6.8: Scatterplot (intention to leave and burnout: depersonalisation)

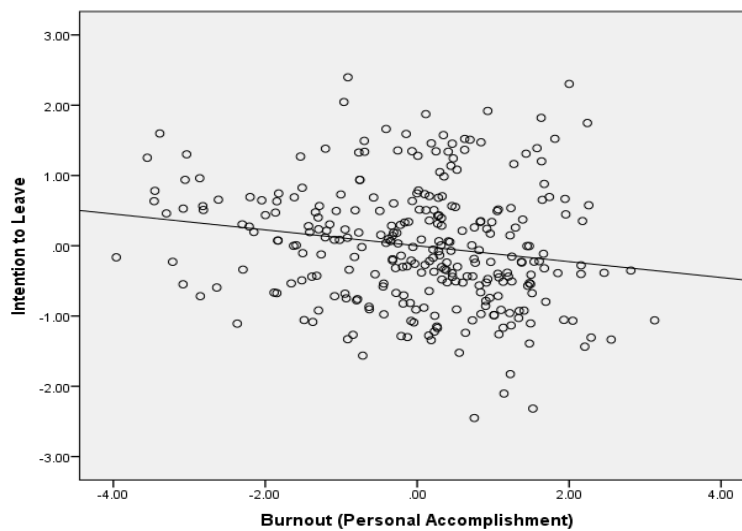


Figure 6.9: Scatterplot (intention to leave and burnout: personal accomplishment)

#### 6.4.4 Multicollinearity.

Multicollinearity refers to predictors that should not be closely correlated. To test this assumption, the tolerance and variance inflation factor (VIF) statistics were examined for all of the predictor variables. The values are summarised in Table 6.22.

Table 6.22

*Collinearity diagnostics of the predictor variables*

Predictor variables	Tolerance	VIF
Job satisfaction	.91	1.10
Stress (problem with supervisor)	.38	2.67
Stress (workload)	.38	2.61
Stress (uncertainty on treatment)	.38	2.64
Burnout (emotional exhaustion)	.65	1.54
Burnout (depersonalisation)	.81	1.23
Burnout (personal accomplishment)	.87	1.15

For the tolerance statistic, values below .20 are considered problematic, whereas for the VIF, values greater than 10 are considered problematic (Field, 2009). Table 6.22 shows that both values are well within acceptable limits. Thus, multicollinearity was not an issue.

### **6.5 Relationships: Job Stress, Job Satisfaction and Burnout**

Research question two was concerned with interrelationships between the study variables of job stress, job satisfaction and burnout. To answer this question, bivariate correlation coefficients were computed and are presented in Table 6.23.

Table 6.23

*Correlation matrix of the variables*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Intention to leave													
2. Job satisfaction	-.34**												
3. Stress (death)	0.02	0.09											
4. Stress (conflict with physician)	0.08	0.01	.67**										
5. Stress (inadequate preparation)	0.08	-0.07	.56**	.50**									
6. Stress (problem with peers)	0.09	-0.10	.49**	.38**	.51**								
7. Stress (problem with supervisor)	.14*	-0.07	.54**	.51**	.44**	.49**							
8. Stress (workload)	.14*	-0.08	.56**	.58**	.51**	.54**	.72**						
9. Stress (uncertainty on treatment)	0.03	-0.01	.68**	.69**	.57**	.57**	.72**	.69**					
10. Stress (parents & family)	0.10	-0.11	.51**	.51**	.49**	.47**	.62**	.70**	.64**				
11. Stress (discrimination)	0.06	0.04	.59**	.52**	.40**	.40**	.56**	.47**	.62**	.45**			
12. Burnout (emotional exhaustion)	.25**	-.17**	0.07	.14*	.15*	.19**	.35**	.39**	.28**	.32**	0.04		
13. Burnout (depersonalisation)	.21**	-.14*	.23**	.22**	.27**	.18**	.18**	.25**	.22**	.19**	0.09	.39**	
14. Burnout (personal accomplishment)	-.15*	.15*	0.07	0.04	-0.08	0.02	.15**	.14*	0.08	.13*	0.11	.23**	0.02

\*p&lt;.05, \*\* p&lt;.01

The results for research question two in Table 6.23 indicate that job satisfaction was not correlated with any of the stress dimensions. However, it was found to have weak but statistically significant correlations with the burnout dimensions. As expected, job satisfaction had a weak positive correlation with personal accomplishment ( $r=.15$ ,  $p<.05$ ), but a weak negative correlation with emotional exhaustion ( $r=-.17$ ,  $p<.01$ ) and depersonalisation ( $r=-.14$ ,  $p<.05$ ). Correlation coefficients below 0.2 are generally considered weak (Field, 2009).

Burnout and stress were generally positively correlated. In terms of emotional exhaustion, burnout was correlated with almost all dimensions of stress except for stress due to death and dying. The range of correlations between burnout and stress were from weak to

moderate ( $r=.14$  to  $.39$ ). It was noted that the highest correlations of emotional exhaustion were with stress due to workload and uncertainty on treatment (values and  $p$ -values).

Depersonalisation was positively correlated with all stress dimensions. The correlations were generally weak ( $r=.18$  to  $.27$ ). The weakest correlations were with stress due to problems with peers and supervisors, while the strongest was stress due to inadequate preparation ( $r=.39$ ,  $p<.01$ ).

Personal accomplishment was correlated only with stress due to problems with supervisor ( $r=.15$ ,  $p<.01$ ), workload ( $r=.14$ ,  $p<.05$ ), and patient's parents and family ( $r=.13$ ,  $p<.05$ ). It was noted that the correlations were weak but positive.

In summary, the results showed that there was no relationship between nurses' job satisfaction and job stress. However, there was an association between job satisfaction and burnout. Respondents who were emotionally exhausted and depersonalised tended to have low job satisfaction, whereas those who reported high personal accomplishments tended to be satisfied with their jobs (van der Doef, Mbazzi & Verhoeven, 2012). In terms of stress and burnout, as expected, those who reported higher burnout levels tended to also report high stress levels particularly for dimensions such as workload and uncertainty on treatment.

## **6.6 Effects of Job Satisfaction, Job Stress and Burnout on Intention to Leave**

To address research question three whether burnout, job satisfaction and job stress results in intention to leave a hierarchical regression analysis was conducted among the variables. The process involved a multiple regression with the control variables as the independent variables. From this first regression, the variance could be accounted for in the corresponding group of independent variables. A second multiple regression analysis was conducted with both the original independent variables and a new set of independent variables. This allowed for examination beyond the first group of independent variables.

In this study, intention to leave was entered as the dependent variable, and various demographic variables were entered as control variables. Specifically, controls were for the effects of age, gender, marital status, years in nursing and years in the hospital (step 1). Next, all significantly correlated variables with intention to leave based on the bivariate correlations in Table 6.23 were entered. These variables are as follows: job satisfaction, stress (problem with supervisor), stress (workload) and all three components of burnout: emotional exhaustion, depersonalisation and personal accomplishment. This implies that, in step 2, all control variables were entered together with the additional predictor variables. The summary of the analyses is shown in Table 6.24.

Table 6.24

*Summary of hierarchical regression analyses*

Variables	B	$\beta$	p	<i>t</i>	F (df=5,283)	p	adjusted R <sup>2</sup>
Dependent variable: intention to leave							
<i>Step 1 (control variables)</i>					1.330	.251	.006
Age	-.030	-.027	.782	-.277			
Gender	-.151	-.058	.343	-.949			
Years in nursing	.048	.038	.716	.364			
Years in the hospital	.164	.083	.195	1.298			
<i>Step 2</i>					6.871	.000	.197
Stress (problem with supervisor)	.226	.153	.076	1.780			
Stress (workload)	.160	.093	.278	1.088			
<i>Stress (uncertainty on treatment)</i>	-.379	-.205	.018	-2.387			
<i>Burnout (emotional exhaustion)</i>	.138	.198	.003	3.015			
Burnout (depersonalisation)	.085	.098	.097	1.667			
<i>Burnout (personal accomplishment)</i>	-.113	-.169	.003	-2.991			
<i>Job satisfaction</i>	-.293	-.253	.000	-4.560			

Note: Significant predictors are in italics.

Results of the regression analyses in Table 6.24 indicated the following. Between steps 1 and 2, the changes in parameters were not significant; hence, they did not warrant reporting. The control variables (indicated in step 1) did not significantly predict intention to leave ( $F(5,283)=1.33$ ,  $p=.251$ ). When the effects of all predictor variables were taken together as a whole (step 2), they significantly predicted intention to leave ( $F(5,283)=6.871$ ,  $p<.001$ )

and accounted for 19.7% of the total variance in intention to leave. The  $r^2$  change was 0.178 with its p-values, indicating that it was significant.

Further examination of the contribution of the individual predictors indicated that the most significant predictor of intention to leave was job satisfaction ( $\beta=-.253$ ,  $p<.001$ ), followed by stress due to uncertainty on treatment ( $\beta=-.205$ ,  $p=.05$ ). Among the burnout dimensions, only emotional exhaustion ( $\beta=.198$ ,  $p<.01$ ) and personal accomplishment ( $\beta=-.169$ ,  $p<.01$ ) were the significant predictors of intention to leave. Table 6.25 shows the summary with stress factors as predictors.

The regression summary in Table 6.25 focused on the effect of the stress factor of intention to leave. The results are consistent with the previous analysis, indicating that among the nine factors, only uncertainty on treatment was statistically significant.

Table 25  
*Regression summary (stress factors as predictors)*

Variables	B	$\beta$	P	$t$	F (df=5,283)	p	adjusted $R^2$
Dependent variable: intention to leave							
<i>Step 1 (control variables)</i>					1.330	.251	.006
Age	-.030	-.027	.782	-.277			
Gender	-.151	-.058	.343	-.949			
Years in nursing	.048	.038	.716	.364			
Years in the hospital	.164	.083	.195	1.298			
<i>Step 2</i>					1.698	.056	.033
Stress (death and dying)	-.135	-.096	.325	-.985			
Stress (conflict with physician)	.131	.087	.340	.955			
Stress (inadequate preparation)	.137	.073	.360	.918			
Stress (problem with peers)	.096	.054	.483	.703			
Stress (problem with supervisor)	.275	.187	.056	1.923			
Stress (workload)	.263	.153	.142	1.472			
<i>Stress (uncertainty on treatment)</i>	-.495	-.267	.026	-2.235			
Stress (parents & family)	-.042	-.027	.761	-.305			
<i>Stress (discrimination)</i>	.046	.039	.624	.491			

Note: Significant predictors are in italics

Table 6.26 shows the regression summary for burnout factors.

Table 6.26

*Regression summary (burnout factors as predictors)*

Variables	B	$\beta$	p	<i>t</i>	F (df=5,283)	p	adjusted R <sup>2</sup>
Dependent variable: intention to leave							
<i>Step 1 (control variables)</i>					<i>1.330</i>	<i>.251b</i>	<i>.006</i>
Age	-.030	-.027	.782	-.277			
Gender	-.151	-.058	.343	-.949			
Years in nursing	.048	.038	.716	.364			
Years in the hospital	.164	.083	.195	1.298			
<i>Step 2</i>					<i>5.929</i>	<i>.000c</i>	<i>.120</i>
<i>Burnout (emotional exhaustion)</i>	<i>.193</i>	<i>.277</i>	<i>.000</i>	<i>4.332</i>			
Burnout (depersonalisation)	.093	.107	.078	1.772			
<i>Burnout (personal accomplishment)</i>	<i>-.140</i>	<i>-.210</i>	<i>.000</i>	<i>-3.634</i>			

Note: Significant predictors are in italics

Table 6.26 indicated that the depersonalisation burnout factor was not a significant predictor of intention to leave, whereas the two other dimensions (emotional exhaustion and personal accomplishment) were significant.

In conclusion, the analysis showed that intention to leave was significantly predicted by job satisfaction, stress due to uncertainty on treatment, emotional exhaustion (burnout) and personal accomplishment (burnout). Analysis showed that intention to leave tended to decrease as job satisfaction increased. Surprisingly, intention to leave tended to increase when stress due to uncertainty on treatment decreased. Finally, intention to leave tended to decrease when burnout due to personal accomplishment and job satisfaction increased.

## 6.7 Chapter Summary

In answering the research questions, it was noted that the demographics and the work profiles of the nurse participants from Ha'il were within the Saudi norms conveyed in the literature, although there was a higher proportion of Saudi nationals. The participants were predominantly women under 30 years of age who held a diploma of nursing, had fewer than



10 years of nursing experience and had thus been with their employer for fewer than 10 years. The majority of non-nationals were predominantly from the Philippines and India. Respondents were staff nurses whose specialisation reflected the nature of their general and purpose-oriented hospitals. Descriptive analysis within the ambit of the first research question showed that the nurses' overall job satisfaction was adversely affected by their occasionally stressful experiences.

For the second research question, the results confirmed the descriptive analysis findings whereby nurses' stress levels did not affect their job satisfaction. However, burnout may affect job satisfaction. Respondents who were emotionally exhausted and depersonalised tended to have low job satisfaction, whereas those who reported high personal accomplishment tended to be satisfied with their jobs (van der Doef, Mbazzi & Verhoeven, 2012). In terms of stress and burnout, as expected, those who reported higher burnout levels tended to also report high stress levels particularly for dimensions such as workload and uncertainty on treatment.

For the remaining question, intention to leave was significantly predicted by job satisfaction, stress (uncertainty on treatment) and burnout (emotional exhaustion and personal accomplishment). It was found that intention to leave decreased as job satisfaction and personal accomplishment increased, whereas intention to leave increased when stress (uncertainty on treatment) decreased. Nevertheless, the majority of respondents (56.3%) intended to leave as soon as possible; this may have reflected factors external to the measures (e.g. private-sector offers). These results make an original contribution of new knowledge to the world literature concerning job stress, burnout, job satisfaction and intention to leave, with unique insights into the Arabian Peninsula's nursing practices. The next chapter discusses these results within the literature.

## Chapter Seven: Discussion

This chapter discusses the study's results in relation to the findings from the literature on the three models of job stress, burnout and job satisfaction. These models have been used by researchers over a considerable period, and this study's contribution to knowledge also concerns the relevance of these measures leading to nurses' retention in an Islamic culture which may be appropriate for countries in similar situations.

The research questions sought to investigate whether job stress, burnout and job satisfaction influenced nurses in the Ha'il province in their intention to leave the profession or intention to leave the employer. The research questions were as follows:

1. How do nurses' demographic characteristics and work profile characteristics affect factors such as job stress, burnout, job satisfaction and intention to leave?
2. What are the links between job stress, burnout and job satisfaction for nurses?
3. Could the variables of burnout, job satisfaction and job stress increase nurses' intention to leave?

This chapter is set out as follows: first, the research questions are addressed by presenting the results and discussing them in relation to the literature. This relates to characteristics of Ha'il nurses: staffing, influences on career choice, working with mixed nationalities and the nurses' attributes. The results of the model measures in relation to the context chapter and the literature are presented. For research question two, the relationships between the models and the questions are discussed. This is followed by the factor analysis, where the loadings into factors present another level of enquiry (Flick, 2009). The chapter concludes with a discussion of the effects of the model responses by the participants on intention to leave their employer.

## **7.1 Characteristics of Ha'il Nurses: Question 1**

The characteristics of Ha'il's nurses are discussed in terms of the research questions; thus, this section considers the demographic characteristics of the nurses relevant to the Ha'il province. This is followed by the nature of the working environment for the nurses. The remainder of the section presents the working environment in terms of the research models of job stress, burnout, intention to leave and job satisfaction.

### **7.1.1 Staffing.**

While the number and quality of nurses available in Ha'il at any time are fundamental to this investigation, a corollary is that the Saudi population should eventually be able to sustain a supply of nurses sufficient to its needs. The number of Saudi nationals required to achieve this aim is difficult to establish. Older statistics at the end of a reported global nurse shortage cited that the existing allocation was 47.4 nurses per 10,000 population (Ministry of Health, 2011).

There appears to be no agreed international nursing standards among the profession; however, the Royal College of Nursing, UK (2010) made a series of recommendations on the qualifications and number of nurses on duty in its government hospitals, noting that in 2009, the ratio across the UK was 1 nurse per 8.8 patients and that 60% of the 998 nurses in its sample were registered nurses. In Victoria, Australia, nurses' employment awards stipulate ratios, which are generally 1:4 for major (base) hospitals to 1:10 (at night) for regional hospitals (Fair Work Australia, 2012). Thus, there are no comparison data for nurse-patient ratios and, indeed, this was not possible to establish for Saudi Arabia. However, several authors noted that there are insufficient numbers of nurses in Saudi public hospitals (Al-Ahmadi, 2009; Forstenlechner & Rutledge, 2011; Ramady, 2013). Almalki et al. (2011) and Carrington (2013) found that disincentives for Saudi nationals were pay and legal restraints

on women's work, although these were each deemed less important when working in the public sector. However, Aboshaiqah (2013) recently established satisfaction among nurses in a large Saudi hospital, and this may reflect an improved global nursing supply. Rasooldeen (2013) reported Saudi plans to significantly increase health resources by 2020, including upgrading nurse education to graduate status throughout Saudi Arabia. In an open report on health resources in Saudi Arabia, Colliers (2012) stressed the need for new hospitals and more beds in existing hospitals, estimating that there was a low number of 20 beds per 10,000 population less than the Gulf average and that the nurse populations of less than two was the lowest of Colliers' comparable countries. Further, specialist care was not available throughout Saudi Arabia. This research has an open finding on the adequacy of nurse numbers for the Saudi population in Ha'il. While there is no agreed ratio for nurses in hospitals, there may be insufficient numbers of nurses in Saudi public hospitals at any given time. This situation may be transient and geographical rather than endemic, and it may reflect Saudi Arabia's growth towards its health objectives for 2020.

### **7.1.2 Attraction of nursing.**

Saudi Arabia has a low workforce participation rate of 61% for males over the age of 15 years and 16% for females in the same cohort. In Ha'il, male participation (72%) is higher than the Saudi average, although it is very low for women (14.7%) (Ministry of Health, 2013).

The Ministry of Health (2013) reported that Saudis occupy one-third of all nursing positions in Saudi Arabia, with the nationals predominant in public hospitals (52%). In 2011, the Ministry of Health (2011) reported that Ha'il recorded under the national average for Saudi physicians (nationally 22.4%, Ha'il 3%) and Saudi nurses (nationally 33.6%, Ha'il 28.8%). Of interest, given the new emphasis on nurse graduates, there were few Ha'il nationals in the category of allied health workers (nationally 69.1%, Ha'il 9.3%). The

statistics for Ha'il nurses in 2011 (N=2507) were that 27% of all Ha'il nurses were national women and 28% were national men. In this study, 57% of the sample were Saudis, with the remainder largely Philippine (23%) and Indian (18%). The expatriate figures were 44% female nurses, with less than 1% foreign men (percentages rounded out) (Ministry of Health, 2011). To summarise, the majority of working Saudi women in Ha'il are assumed to be qualified nurses, and this cohort contributes over one-quarter of the Ha'il nurse numbers for public hospitals. Given the women's extremely low workforce participation rate, there is an opportunity for Ha'il's secondary school students to select nursing as a career. This could assist Saudi Arabia to achieve Saudisation/Nitaqat by improving its outlying workforce participation rate. Among Ha'il's nationals, the nursing profession appears suitable for women despite the legal commuting and rostering restrictions. It is also acceptable for national men, who contributed a similar percentage of the nursing workforce. However, expatriate male nurse numbers were extremely low (16), indicating that they did not apply for jobs in the gender-segregated hospitals; this work was arguably undertaken by expatriate women. The literature is silent about a change of interest towards nursing by Saudis. Al-Mahmoud et al. (2012) studied the training of nurses in all 99 Saudi institutions, finding significant increases in nurse student places, although these were primarily vocational at the time; there were no degree-level nursing courses available to Saudi men. The media has reported frequent calls for Saudis both men and women to enter the profession, improve working conditions or to upgrade their qualifications (Al-Asmari, 2013; Al-Jasem, 2013; Rasooldeen, 2013). This study supports the media, as well as Al-Mahmoud et al. (2012), in calling for greater attention in the provinces to value nursing professionals' contributions to their communities.

### **7.1.3 Influence of expatriate nurses on healthcare.**

There are no statistics regarding the nationalities of expatriate nurses in Saudi Arabia. Media reports may suggest the numbers of Philippine or Indian nurses arriving from their home countries; however, this can only be conjecture based on aircraft arrivals and those who register at their consulates in Saudi Arabia (ABS-CBNnews, 2013). For example, Lu (2013) stated that 57% of all Philippine overseas nurses were located in Saudi Arabia in 2008; the *Economic Times in India* (2013) mentioned 570,000 Indians working in Saudi Arabia in 2011, nurses included. Recently, the *Khaleej Times* (2013) reported that there were some 800,000–1,000,000 Indians accessing emergency employment visas under Nitaqat that is, they had overstayed their original work visas. Al-Ahmadi (2013) noted that turnover was frequent with all expatriate nurses, as women could not gain family visas and they were unable to move from their Saudi employers. Therefore, there is a largely unknown international workforce in Saudi Arabia, and this extends to the health sector, given the proliferation of public healthcare and private providers who service the public, service health insurers such as BUPA, or those who service their own employees, such as Saudi Aramco (e.g., Al-Shehri & Al-Alwan, 2013; Ministry of Health, 2013).

International medical professionals, including nurses, are recruited on the basis of their qualifications and experience. The Saudi government is heavily reliant on transient nurse labour and, as Al-Ahmadi (2013) found, this is largely of two-year duration, leading to a continuous and high turnover of staff. In this study, 43% of the nurses were foreigners. Although the intention of Nitaqat is to transfer foreign skills to Saudi nurses, the reverse is also true, and expatriate nurses may also be seeking career development. However, Newton et al. (2012) found that nurses' expectations of improved income and professional stature were largely non-existent, and cultural differences, deskilling and discrimination against foreigners hindered their host country experience.

While all foreign and national nurses should be inducted into a new working environment, this study found that the length of expatriate contracts is insufficient to mentor young Saudi nurses. Short-term nurse contracts are not adequate to the purpose of transferring skills and knowledge. There is insufficient time for experienced foreign nurses to become familiar with an institution's environment and thus become more confident in their work and then acquire the expertise to assist young Saudi nurses.

#### **7.1.4 Individual attributes.**

The median age of citizens in Saudi Arabia is 26 years (World Factbook, 2013). This influences the working experience levels of Saudi national nurses; indeed, over half (52%) of the sample in this study was aged up to 30 years, with one-third (35%) up to 40 years. A few (13%) men and women were older. The sample primarily consisted of women (85%); thus, respondents were presumably self-selected that is, the men declined to complete the survey. Of concern, this study showed that nurse respondents were predominantly (71%) at the diploma level, with the remainder holding degrees in line with Saudi Arabia's recent changes of nurse certification to full qualifications. This shows that foreign recruits are not necessarily nurse graduates. Fielden (2012) noted that new graduate programs were underway for Saudi nurses to retrain those employed in hospitals. The challenge faced by hospital management will be to become more reliant on nationals through the introduction of professional development in Saudi Arabia given the expansion of careers that are relevant to nursing through healthcare evolution and technological and medical changes.

Work experience of the study sample showed that 69% had less than 11 years' experience in nursing and 91% had been with their employer for less than 11 years. Interestingly, 31% had 11 years or more as a nurse, and 8% had been with their employer for more than 11 years. Given the assumption that the majority were transient, there was a core of (assumed) nationals who were dedicated to their work and their employer. This is not the

norm in Saudi Arabia, where nationals frequently leave their job (Almalki et al., 2012; Alonazi & Omar, 2013). This study found that a minority of nurses were dedicated to their jobs and their employers; this is confirmed by the majority of studies, which have reported a low retention rate (Abualrub, 2010; Al-Ahmadi, 2013; Alasmari, 2013; Almalki et al., 2012).

#### **7.1.5 Comparative analysis of attributes.**

Comparative studies for nurses' attributes show that a minority (43% of the sample) of participants in their twenties had a diploma in nursing, while only 7% held bachelor's qualifications. Only one person in this cohort had a master's qualification in nursing. This could support Newton et al.'s (2012) observation that nurses travel for improved income and to gain further experience; presumably those with master's degrees found work in their home countries, negating the need to travel. This nurse may have been a local.

For those in their thirties, 20% of the sample held a diploma, 12% were qualified with a bachelor's in nursing and 2% had higher qualifications. In total, 7% of the sample had been with their employer for more than 11 years. As attributes change according to individuals, there are no relevant findings in this regard because it is difficult to generalise past the well-documented turnover of nurses.

#### **7.1.6 Findings on participants' characteristics.**

The working conditions for nurses in Ha'il are fundamental to their employment experience; however, the lack of relevant nurse-patient ratio standards and conflicting anecdotal reports of nurse cover for the Saudi population in Ha'il leaves an open finding. Further, Saudi Arabia is in a period of significant upgrading of its health infrastructure, so nurse numbers will continue to increase with more beds and new facilities. Nevertheless, there are inadequate numbers of male and female local Ha'il nurses, and this study supports those calling for greater attention to the promotion of nursing values in remote communities.



Given that a significant proportion of Saudi Arabia's nurses continue to be imported, the current length of expatriate contracts is insufficient to mentor young Saudi nurses. It appears prudent to increase the retention of nurses to three years or more with offers such as family incentives to ensure continuity of employment and to build quality in the profession. Further, a dedicated core of nurses is serving the community, and they appear to be best placed to mentor nurse graduates.

### **7.1.7 Models in research question.**

The models used in this research question were job stress, burnout, intention to leave (profession and employer) and job satisfaction of nurses. These are discussed in turn.

#### **7.1.7.1 Job stress items.**

The literature review confirms that, in keeping with terminology relating to working conditions, job stress can either be perceived as a dependent or an independent variable. From the early investigators (e.g. Beehr & Newman, 1978), job stress was studied as a psychological factor sourced from individual differences and the working environment. There was considerable interchange between psychology-based models for example, Cherniss (1980) studied burnout as an independent variable with the variable of job stress. This early work was replicated in Taiwan by Hsu et al. (2010) and Yoon and Kim (2010) in Korea, where relationships were established between job stress and burnout. Among public-sector employees, Griffin, Hogan, Lambert, Tucker-Gail and Baker (2010) found a significant positive relationship between job stress and burnout.

In the early 2000s, an international shortage of nurses resulted in increased interest among researchers of the factors in retaining nurses, including job stress, and this raised interest in emerging economies. In Middle Eastern countries, Abualrub (2004) studied job stress as a factor in organisational performance. In the Saudi healthcare sector, several

researchers established factors that influenced job stress: working conditions, organisational relationships, role conflict and culture (Aboshaiqah, 2013; Almalki et al., 2012; Zakari et al., 2010).

In this study, factors contributing to job stress were related to the organisation: over half (53.6%) reported that a lack of staff in the unit resulted in them being frequently or extremely stressed at times. This result differs with Saleh et al. (2013), who studied nurses in Dammam and found that gender discrimination and sexual harassment were the primary causes of stress. In this study, the opposite is true: sexual harassment is the least of the stressors. However, the result concurs with Al Ahmadi (2013) in that work environment and organisational stressors predominated among nurses throughout Saudi Arabia. The second factor reported in this study was the health and safety issue (40% were at times extremely stressed or frequently stressed). This concurs with Almutairi (2012), who found that health and safety issues can affect patient care in a large Saudi hospital. Almalki et al. (2012) also reported staffing concerns among nurses in Jazan. Interestingly, Almutairi (2012) also reported differences in perceptions of safety based on a nurse's national culture. The third stressor in this research was the issue of ancillary non-nursing tasks (35.5% were at times extremely stressed or frequently stressed). Almalki et al. (2012) mentioned poor administrative practices in Jazan, while Zakari et al. (2010) called for recognition of nurses' professionalism, aligned with the patient as the focus for nursing. Al-Hosis et al. (2013) noted the range of tasks for Qassim region nurses that led to job stress.

In summary, researchers attribute job stress to organisational issues whereby technological change, resource restraints and greater transparency on patients' condition are changing the focus from hospital administration to the patient. The conclusion for this study is that organisational conditions are parochial and transient. Staffing and health and safety

issues are aspects of poor management, while extraneous duties may be addressed through appropriate job descriptions, technology and training.

#### ***7.1.7.2 Burnout items.***

Burnout as a concept was defined and modelled by Maslach (1978) as those who constantly interact and attempt to assist with others' problems. In the theory, this creates emotional exhaustion, which leads to a cynical perception of clients and reduced ability to interact with their problems. The resultant burnout is associated with high job turnover. The Maslach Burnout Inventory remains the benchmark measure and was particularly popular with researchers around 2007–2009, due in part to a global lack of nurses, which has since been resolved.

In recent Asian research, the Maslach scale was used by Xie et al. (2011) for nurses in Shanghai, China. They found that burnout is strongly associated with work-related stress, and these findings were confirmed in India by Dasgupta (2012). In Korea, Ko (2012) found that recovery from nurse burnout could be attained by addressing job demands, self-efficacy and job characteristics. Jamal (2010) compared significant numbers of workers' experiences in Canada, China, Malaysia and Pakistan, finding that job stress was significantly related to burnout and intention to leave the employer in each of these countries. Green et al. (1991) found a positive relationship between job stress and burnout, and a significant inverse relationship between job satisfaction and burnout.

In this study, respondents reported high levels of fatigue (75%) and a lack of ability to influence the outcomes from their work. The literature on nurse fatigue is extensive, identified as a characteristic of burnout (Freudenberger, 1974; Pines & Aronson, 1988). Al-Turki et al. (2010), Hooper et al. (2010), Hamaideh (2009) and Keshvari et al. (2012) found extensive fatigue in burnout findings in Saudi Arabia, the US, Jordan and Iran respectively.

Similarly, Ko (2012) found low self-efficacy levels among nurses, as noted, and Unruh and Nooney (2011) found that young nurses had difficulty with job control, although job responsibility is not frequently associated with burnout. Earlier, Glass, McKnight and Valdimarsdottir (1993) found that nurse burnout is associated with perceptions of a lack of job control. Minority responses included frequently not caring about patients (44%) and an inability to interact with patients (41%), and these (minority item) responses confirmed findings by Al-Turki et al. (2010) and Hamaideh (2009). Stark, Hoekstra, Hazel and Barton (2012) advocated for building the concept of a healthy lifestyle in nurse students in order to manage stress and burnout.

Higher item results from the burnout component in this research included positive, although minority, responses. The nurses reported frequent empathy with their patients (46%), satisfaction with working closely with patients (40%) and an ability to remain calm (40%). There was little in the literature to collaborate the minority empathy findings; Ward, Cody, Schaal and Hojat (2012) reported that nurse students exposed to patient contact during training reported less empathy in their experience than those who did not. However, Kunyk and Olson (2001) questioned nurse empathy and stated that its characteristics were ill-defined. The burnout literature does not often comment on coping or positive satisfaction results, although Garrosa, Rainho, Moreno-Jiménez and Monteiro (2010) studied coping strategies among nurses experiencing burnout and found that active coping mechanisms, such as working closely with patients, were positive influences on depersonalisation and a lack of personal accomplishment. The results for this research were that job satisfaction had an inverse relationship with burnout, whereas job stress had a significant positive relationship with depersonalisation and emotional exhaustion. Job involvement also had a positive association with emotional exhaustion, whereas commitment to the organisation had no relationship with any of the three dimensions of burnout.

In summary, of the factors of burnout, emotional exhaustion, depersonalisation and personal accomplishment, the majority findings were frequent fatigue and frustration from a lack of job control. The minority findings relating to negative and positive responses tended to cancel out, so that the relevant literature concerned avoiding or addressing issues of burnout for this study. The two suggestions to address burnout were training (Maslach, 1978) and Ko's (2012) recovery from burnout by identifying critical issues and job re-design.

#### ***7.1.7.3 Job satisfaction items.***

Job satisfaction is considered an indicator of whether to remain or stay with an employer or the profession. It was earlier studied by psychologists and later in the management literature as working conditions, financial and social constraints on the largely female workforce emerged (Bernstein, 2013). Many researchers have studied contributory factors to job satisfaction such as trust (Purani & Sahadev, 2008), recognition of performance (Tella et al., 2007) and organisational commitment (Lee et al., 2011).

Due to a global decline in nurse numbers, attention turned to high turnover rates and influential employment conditions. Spence Laschinger et al. (2009) established that nurse engagement and empowerment increased work effectiveness. In Saudi Arabia, the social environment and cultural norms added further complexity to job satisfaction models and measures, although Bozionelos (2009) reported that culture had no bearing on nurse job satisfaction. Alasmari and Douglas (2012) found that job satisfaction among Saudi nurses is affected by workloads, professional support, and pay and promotion, and that these matters must be addressed to improve nurse retention. Similarly, Almalki et al. (2012) associated job satisfaction and turnover intention with a nurse's perceived quality of work life.

A section of this survey concerned job satisfaction, which was selected to balance the somewhat negative concepts of the other measures: job stress, burnout and intention to leave.

Job satisfaction in this regard concerned a non-differentiated overview or headline approach to satisfaction, incorporating work conditions, relationships, and personal circumstances and attitudes (Azri, 2011). Perhaps because of this, a high rate of non-response (14–26%) tended to affect the non-majority results of this measure. This effect generally concerned the negatively termed items in the job satisfaction scale, such as finding the job unpleasant or boring, or disliking the work. The item *finding the job unpleasant* was agreed or strongly agreed to by nearly half (49%) of the respondents, with a high non-response rate (26%). Participants also agreed that they became bored (49%) and waited for the end of the shift (45%), with non-response rates of over 20%. However, two-thirds (68%) said that they disagreed (40% strongly disagreed) with the item, disliking their work. Thus, the negative items reported were experiencing unpleasantness, boredom and waiting for the shift to end, with the majority agreeing (as a reverse result) that they liked their work.

There is little in the literature about the effects of boredom on job satisfaction or intention to leave. Bruursema, Kessler and Spector (2011) studied boredom in healthcare workers, finding that boredom-prone workers perceived less support from their organisation and received lower performance ratings from their supervisors. Boredom has a negative effect on accomplishing simple vigilance tasks, resulting in a lack of attention to detail. Of jobs that are liked or disliked, Griffin et al. (2010) commented that public-sector employees may experience burnout in jobs that they disliked, or where they found little job satisfaction. There was no evident research on waiting for the shift to end.

Of the positive items enjoyment, satisfaction and enthusiasm in this study, the majority (71%) disagreed equally with finding enjoyment or satisfaction in their work, while a lesser majority (63%) reported enthusiasm for the work. Discussion on individual preferences for nurses in Ha'il is beyond the scope of this research. The discussion on job satisfaction is therefore confined to the items on the survey measure.

Overall, the respondents reported that the work was pleasant; however, they found no enjoyment, satisfaction or enthusiasm for it. This is therefore a clear finding that the nurses did not experience job satisfaction. Given the argument that job satisfaction may relate to the profession and the employer or one alternative to the exclusion of the other, the finding for this research is interpreted as that the participants liked nursing but were dissatisfied with the employment conditions and environment.

In the job satisfaction measure, similar factors were examined, such as job stress, burnout and intention to leave, again with mixed results. In this study, working conditions including adequate resources, pay and performance rewards were not pursued, career development, professional respect and status in the organisation, and support from supervisors and team members. These matters may therefore have influenced nurses' responses; however, they were not part of this quantitative research design.

#### ***7.1.7.4 Intention to leave employer items.***

In this research, intention to leave the profession or employer could be arguably synonymous due to the nature of the international job contract with one employer and the effects of Nitaqat whereby if a foreign worker leaves, he or she must be replaced with a national. If a foreign nurse left an employer in 2013, the nurse had a legal commitment to leave the country (Ramady, 2013). If a national left the hospital, he or she may be leaving the employer, the profession or Ha'il. In this study, there were two direct questions regarding employment. A clear majority (56%) reported an intention to leave, and nearly one-third (31%) of the sample wanted to leave immediately. The second question intention to stay paradoxically also received a clear majority (55%) for staying as long as possible, with 11% very sure that they wanted to stay. Together with high non-response rates (22% and 25% respectively), it appeared that these responses were contradictory and not indicative of intentions.

According to Firth, Mellor, Moore, and Loquet (2004), intention to leave is followed by resignation or otherwise departing the employer or profession. Barak et al. (2001) and Deery (2008) found that factors leading to intention to leave were organisational or job-based, and this outcome is supported by the nurses in this study, who reported insufficient staff for shifts, as well as health and safety issues. Flinkman et al. (2008) found that one-quarter of young nurses in their study considered giving up nursing, and Dichter et al. (2010) reported psychosocial factors on health related to shiftwork. Following the argument that nurses may leave the profession (and the employer), Black et al. (2010) found a large proportion of nurses working in non-ward areas, such as educators, clinics, pharmacies and corporations. Green et al. (1991) found that commitment to the organisation had no relationship with job stress, burnout or job satisfaction.

The global reductions in nurse numbers due to working conditions and a lack of professional status in the early years of the twenty-first century were not evident in the recent literature, as better conditions and renewed educational opportunities took effect. However, as discussed in Section 6.1.1, there are no agreed staffing levels for comparison.

High nursing turnover remains an issue, particularly in Middle Eastern countries and similar paternalistic countries such as Taiwan (Chen, 2013; Kuo et al., 2013; Lee et al., 2013). Recent Saudi and Jordanian studies such as Almalki et al. (2012), Mahran and Al-Nagshbandi (2012) and Raddaha et al. (2012) have confirmed that intention to leave is extant.

While the results for intention to leave from this research are inconclusive, there are legal and demographic restraints that underpin the findings for a continuing lack of nurses in Ha'il: Nitaqat's replacement of foreign nurses, a low labour participation rate of Saudi women (14%) and a high unemployment rate (36%) (Central Department of Census and Statistics, 2013; Knickmeyer, 2013). Arguably, intention to leave an employer includes a social environment that includes ability to stay in the country, an Islamic responsibility to



place family first, constraints on a woman's public activities (e.g. commuting to work) and men's negative attitude to healthcare work. These matters place severe constraints on a Saudi's nursing career.

#### **7.1.8 Summary for the survey measures.**

Of the four measures used on work experience and perceptions from the models, the largest and most comprehensive in terms of the number of items was job stress. In this model, perceived job stress stems from nurses' ability to cope with adverse situations over periods of more than one year. Due to the size of the survey and the resources available to the researcher, the demographic profiles attributed to job stress could not be further differentiated to track contracts or working conditions. Further, the diversity of job titles, locations and seniority of the participants, together with technological change, training, resource restraints and the need for greater transparency on patients' conditions, are indicators of Saudi's healthcare evolution. Therefore, any results from subsequent similar surveys may or may not be consistent with the findings from this study.

This study concludes that Saudi healthcare issues and working conditions at the various hospitals in Ha'il will continue to be localised and changeable, as the existing national nurses are replaced with more highly qualified national staff. Further, expatriate nurses are not fulfilling the Nitaqat mandate, as they are a source of labour moreso than acting as mentors to young, national nurses.

Investment in hospital leadership is required to manage the issues resulting from the job stress survey measures. There were also burnout symptoms from frequent fatigue and lack of job control; nurse training and job redesign are techniques for recovery from burnout. While the measure of intention to leave was inconclusive, the logistics of expatriate contracts, low Saudi labour-force participation and high unemployment among women are factors

whereby high turnover looks set to continue. The findings on job satisfaction were that the respondents were satisfied with their profession; however, they were not satisfied with their working conditions or environment.

## **7.2 Linkages: Question 2**

To establish the findings for research question two, the links between job stress, burnout and job satisfaction were explored. First, exploratory factor analysis was conducted for associations among the various items of the three models.

### **7.2.1 Findings from factor analysis.**

Subjected to factor analysis, the 78 items from the measures of job stress, burnout, job satisfaction and intention to leave were reduced to 11 factors, which are separately addressed below:

- 1 professional demands
- 2 overwork
- 3 extraneous workload
- 4 confident approach
- 5 feeling inadequate
- 6 communications
- 7 attitude
- 8 withdrawal
- 9 disengagement
- 10 employment decisions
- 11 job satisfaction and culture.

### ***7.2.1.1 Factor 1 Professional demands.***

The first factor loaded 24 job stress items that related to insecurity and doubt in professional judgement. These items showed high interaction between items of personal and professional uncertainty, and could be depicted as related to factor 5 (feeling inadequate) and factor 6 (communications).

Of necessity, professionalism is derived from education, experience and then the ability to learn from experience and from access to further training. In this research, the data revealed that 71% of the study participants were qualified at the diploma level and 52% were aged less than 30 years; arguably, the working environment was not one of high professionalism in dealing with crises.

Interestingly, the majority (58%) of this study's participants were Saudi. Nevertheless, as Al Mahmoud et al. (2012) pointed out, there is a question regarding Saudi Arabia's commitment to undertake several years of nursing education given the high proportion of diploma certification in the study. Further, Zakari et al. (2010) found a low perception among nurses in three Saudi health centres regarding their professionalism.

The literature shows that constant change in healthcare from new technology, expanding nurse-related occupations, as well as greater patient awareness and transparency in treatment and its consequences, require more knowledge, skills and responsibility on the part of the nurse practitioner (Aboshaiqah, 2013; Ramady, 2013; World Health Organization, 2006). The need for advanced education in the health sector was therefore addressed by the Ministries of Health and Higher Education by upgrading nurse qualifications to professional status (Ministry of Health, 2011). Further, as evidence of continuing education, Fielden (2012) reported on a professional development framework for clinical competencies and safe practices for nurses in a Saudi hospital. However, Al-Mahmoud et al. (2012) found that

significant increases in Saudi nurse student places were primarily vocational (which have since been addressed by the authorities), and Al-Mahmoud et al. (2012) and Thompson et al. (2013) recently called for better statistics and better planning to provide nurse educators. In relation to ongoing professional development, it was noted in the context chapter that while Nitaqat provides for basic training, there is no pressure on the health sector to maintain professional development for either Saudi nurse employees or for expatriate contractors. In this regard, Jradi et al. (2013) questioned the commitment to nurse education, and Aboshaiqah (2011) found that continuing professional education for underqualified Saudi nurses was restricted by finance and scheduling.

The quality of Saudi nurses, and those of Asian contractors, remains to be established. As this research shows, and as the literature supports, there are no reliable data on nurse numbers, the quality of their diplomas or degrees, or their professional support in the hospital working environment. The insecurity and low self-efficacy depicted by the respondents' reports through the numbers of items that loaded to this factor of professional demands do not support the official statements that Saudi Arabia enjoys appropriate nurse numbers and standards.

#### ***7.2.1.2 Factor 2 Overwork.***

In Section 3.2.1, there was evidence in the literature that, *inter alia*, nurses left their profession if they were younger and disillusioned, for family reasons and for working conditions such as overwork, shifts or pay (Black et al., 2010; Dichter et al., 2008; Flinkman et al., 2008; Simon et al., 2010). In this study, the nine items loaded for the factor of overwork included items of fatigue, despondency and victimisation; thus, there were links to other factors (3 extraneous workload; 8 withdrawal). Arguably, factor 9 disengagement could also be linked; however, disengagement appears to be more permanent than factor 2 overwork, which may be a temporary or cyclical occurrence.

According to Lovering (2008), long hours and working conditions were influential in Saudi nurse retention. Al-Sibai (2013) interviewed Saudi nursing students who said that they were dissuaded from nursing, especially if they received good school results. El-Jardali et al. (2009), Zakari et al. (2010), Kamal et al. (2012) and Al-Hosis et al. (2013) reported that adverse working conditions, including long hours and shiftwork, contributed to nurses' stress levels. Long hours and working conditions are endemic in the nursing profession, and many researchers have commented on aspects of overwork. For example, Flinkman et al. (2010) studied intention to quit by Finnish nurses in relation to arduous work, while Dichter et al. (2010) reported that European nurses disliked long shifts. Further, in Taiwan, Chen (2013), Kuo et al. (2013), Lee et al. (2013) and Chiu-ying et al. (2013) recently reported nurses' adverse reactions to their working conditions and heavy workloads.

#### ***7.2.1.3 Factor 3 Extraneous work.***

In this study, 11 items loaded onto the extraneous duties factor, which also included stressful situations similar to professional demands. Thus, extraneous work, whether extending oneself during a crisis or taking on other duties, led to links with factor 1 professional demands, factor 2 overwork and factor 3 feeling inadequate.

Nurses reported many duties that they considered reduced their primary patient care orientation: supervision, training, mentoring, administrative tasks, planning and meetings. There is little in the literature regarding nurses reporting that administration and non-patient duties are an issue for Saudi-based nurses. Albrithen and Yalli (2012) noted that administration for hospital professionals includes monitoring other staff, reporting patients' or families' complaints, and writing case reports, and these add to stress levels for the professionals. As a Ha'il psychiatric hospital was included in this study, the meta-study of Sharac, McCrone, Sabes-Figuera, Csipke, Wood and Wykes (2010), who investigated the literature concerning psychiatric nurses in hospitals, is relevant. Sharac et al. found that, at

best, nurses spent 50% of their on-duty time with patients, and this decreased as the nurses rose in seniority. Similarly, Moote, Nelson, Veltkamp and Campbell (2012) reported that for oncology nurses, funded administrative duties included supervision of other nurses, administrative paperwork and meetings, and that these duties conflicted with their patient responsibilities. The remaining items were associated with safety and health, and the responsibility of the employer, and Almutairi, Gardner and McCarthy (2012) found widespread concern for safety issues in a large Saudi hospital. Earlier, El-Gilany, El-Wehady and Amr (2010) called for violence prevention and control programs in healthcare facilities when they found that 28% of their sample of over 1,000 hospital staff had experienced emotional (92%) and physical (8%) violence in the past year.

Although the nurses in this study found that extraneous work was a stress-related issue, arguably they were on duty and their tasks were related to the conduct of their duties that is, caring for patients' welfare. There could be a case for administrative assistance in the wards to reduce nurses' workloads.

#### ***7.2.1.4 Factor 4 Confident approach.***

This factor related to attitude, empathy, confidence and coping strategies. A positive frame of mind in approaching daily tasks can aid coping strategies, and there are mixed results from the literature on this aspect of work. Studying nurses in the Jazan province, Al-Malki et al. (2012) found that nurses were satisfied with their co-workers, satisfied to be nurses and had a sense of belonging in their workplaces. Al Ahmadi (2009) reported on individual differences in nurses' attitudes, finding that satisfaction was positively related to years of experience, nationality and gender. Although site-specific, Al-Dossary et al. (2012) found that in a Saudi teaching hospital case study, nurses were satisfied with supervision, co-workers and the nature of their work. Recently, Kaddourah, Khalidi, Abu-Shaheen and Al-Tannir (2013) at a similar Saudi hospital found that nature of the nurses' work was highly

satisfactory; however, the leadership aspect was not. In a convenience sample, Abualrub and Alghamdi (2012) reported similar findings that Saudi nurses were satisfied with their work, and moreso when their leaders were innovative and flexible. In all of these studies, the respondents reported distinctly adverse attitudes towards other aspects of their work; however, there was a constant theme of approval of their caring work, flexible leadership and supportive colleagues.

In this study, participants reported a high level of empathy towards their patients, although there was little to support the literature in this factor. Of interest, Harakati, Shaheen, Tamim, Taher, Qublan and Sayyari (2011) reported that Saudi patients and healthcare professionals viewed the empathy of care providers differently, which they attributed to cultural and educational differences between the two groups. As many other studies have shown, organisational elements that is, leadership and working conditions are highly influential in job satisfaction (Alasmari & Douglas, 2012; Almalki et al., 2012; Azri, 2011; Bozionelos, 2009). Further, the last item loaded onto this factor was that the respondents negatively rated their enthusiasm for the job. Given these outcomes, factor 4 confident approach can be associated with the following factors: 1 professional demands, 6 communications, 10 employment decisions and 11 job satisfaction and culture.

#### ***7.2.1.5 Factor 5 Feeling inadequate.***

This factor loaded four items relating to inability to cope with patients' conditions and two for lack of staff support. These items empathy and team function follow from factor 4 confident approach, although the attitude is reversed in response to patient demands and communication (factor 6). Further, this may lead to factors 8 withdrawal and 9 disengagement. Therefore, feeling inadequate affects several other factors in this series. Again, the literature does not adequately include coping strategies in this regard. Al-Ahmadi (2010) pointed to safety risk in the case of a poor Saudi hospital working environment,

advocating for improved leadership skills, elimination of blame and the creation of a climate of open communication and continuous learning.

However, staff support and team leadership benefits were well supported in the literature. Abualrub and Alghamdi (2012) advocated for management flexibility in allowing nurses more responsibility in the conduct of their duties. Almalki et al. (2012) stated that hospital management should improve the quality of work life for nurses. Aboshaiqah (2013) called for a culture of mentoring and peer support for new Saudi nurses. Media reports have confirmed that there remains an underlying lack of support for Saudi nurses in Saudi Arabia (Al-Sibai, 2013).

#### ***7.2.1.6 Factor 6 Communications.***

While good workplace communications are essential to achieve organisational goals, there are lives at risk in hospitals that lack communication protocols. In Saudi Arabia, communications are confounded by several interconnecting aspects: language differences, including Arabic dialects; experience and education (skills and knowledge); significant expatriate nurse numbers; and high levels of nurse turnover. Thus, communications are an important aspect of the Ministry of Health's training curricula. Zakari et al. (2010) pointed to good communications within and external to Saudi hospital teams as fundamental to professionalism. In the United Arab Emirates, El-Amouri and O'Neill (2011) studied the mix of languages and cultures of nurses drawn from non-Arabic-speaking backgrounds. They called for improved induction and training for nurses to facilitate communications and interactions with both patients and colleagues.

In this study, four items loaded onto factor 6 communications: two each regarding patients and co-workers. These items were negatively phrased so that participants reported their inability to communicate for work-based reasons other than language or culture. Thus,



this factor is linked to others: 1 professional demands, 4 confident approach, 7 attitude, 8 withdrawal, and 11 job satisfaction and culture.

#### ***7.2.1.7 Factor 7 Attitude.***

This factor loaded with seven items depicting frustration, fatigue and disassociation with daily responsibilities. These attitudes may have been long-held, or may have reflected a participant's current mood. Such an attitude tied this factor into possible causes and outcomes so that linked factors are: 6 communications, 8 withdrawal, 9 disengagement and 10 employment decisions. The literature has earlier mentions of fatigue (Freudenberger, 1974) and later references to fatigue in burnout (Hamaideh, 2009; Hooper et al., 2010; Keshvari et al., 2012).

#### ***7.2.1.8 Factor 8 Withdrawal.***

Remoteness from the task at hand and the plight of the patient were the descriptors loaded onto this factor. Al-Turki et al. (2010) described high levels of withdrawal through burnout in Saudi-based nurses. Elsewhere, Flinkman et al. (2008) cautioned against withdrawal in young nurses, while working conditions were frequently cited as reasons for withdrawal and eventually disengagement, which is discussed in the next factor. This factor is therefore associated with 7 attitude, 9 disengagement and 10 employment decisions.

#### ***7.2.1.9 Factor 9 Disengagement.***

Two items loaded onto this factor, both relating to lack of communication with staff. This factor is therefore linked to factor 6 communications and 8 withdrawal. Van der Heijden et al. (2010), studying panel data on European nurses, found that supervisor and peer support negatively affected intention to leave. In Saudi Arabia, Lovering (2008) and Zaghloul et al. (2008) also found that medical practitioners' attitudes towards nurses in the medical teams influenced nurse disengagement.

#### ***7.2.1.10 Factor 10 Employment decisions.***

This factor could be equally termed intention to stay or leave, confusing the terms with other definitions used in this study. The three items loaded onto this factor related to leaving the employer and the death of a patient. Employment decisions are fundamental to this research, and the respondents were intending to leave soon. Intention to leave is associated with turnover (Leiter & Maslach, 2009). Many researchers associate intention to leave with leaving the employer through a variety of means: job satisfaction, supervision, peer support and working conditions; however, there is little to link these empirical studies with individual outcomes (Chen, 2013; Chiu-ying et al., 2013; Deery, 2008; Kuo et al., 2013; Lee et al., 2013; Zeytinoglu et al., 2011). Nevertheless, this factor may be linked to 7 attitude, 8 withdrawal and 9 disengagement.

#### ***7.2.1.11 Factor 11 Job satisfaction and culture.***

There were two items that loaded onto this factor: unsatisfactory work and working with the opposite sex. The links for this factor are 4 confident approach and 6 communications. Almutairi et al. (2012) explained that all expatriate nurses differ from the Saudi culture and expected norms, causing cultural conflicts from nurse–patient interactions. For expatriate nurses, Newton et al. (2012) found that the culture of the host country, discrimination and nurses' ability to cope demoralised many expatriate nurses. For young Saudi nurses, Fielden (2012) advocated for nurse leaders to improve intention to stay.

### ***7.2.1.12 Results from factor analysis.***

The summary of linkages are as follows:

1 professional demands linked with 5 and 6

2 overwork: 3, 8

3 extraneous workload: 1, 2, 3

4 confident approach: 1, 6, 10, 11

5 feeling inadequate: 8, 9

6 communications: 1, 4, 7, 8, 11

7 attitude: 6, 8, 9, 10

8 withdrawal: 7, 9, 10

9 disengagement: 6, 8

10 employment decisions: 7, 8, 9

11 job satisfaction and culture: 4, 6.

Priority linkages are therefore factor 6 communications and 8 withdrawal, which are both linked to five other factors, followed by 9 disengagement (four factors) followed by 1 professional demands, 7 attitude and 10 employment decisions. Thus, the findings from the factor analysis are that the primary issues stem from communications with patients and team members particularly managers and physicians which leads to withdrawal of the individual from the working environment and thus lack of commitment to the organisation, as evidenced by the number of linkages (four) to disengagement, which in that analysis led back to communication. The remaining three factors each with three linkages were a low level of professionalism, which was a factor of the large percentage of underqualified nurses, and a negative attitude to the job, which was connected to intention to leave.

### **7.2.2 Links between the measures.**

The answer to research question two, which was concerned with links between the measures, was derived through regression analysis. The results were that job satisfaction was found to be weakly related to the burnout dimension of personal accomplishment. Van der Doef et al. (2012) stated that high personal accomplishment leads to high job satisfaction, which held true up to a point in this study. However, according to van der Doef et al. (2012), emotional exhaustion and depersonalisation result in low job satisfaction, and this relationship did not hold true for this study.

Analysis in this research found that burnout and stress items were generally positively correlated, with the burnout dimension of emotional exhaustion correlated with all stress items, with the exception of stress due to losing a patient. The highest correlations of emotional exhaustion were stress due to workload and uncertainty on treatment. Depersonalisation was also positively correlated with all stress dimensions. The linkages in this study between burnout (emotional exhaustion) and stress (workload, uncertainty of treatment) confirm results from the literature. Xie et al. (2011) in China and Dasgupta (2012) in India found that nurses' burnout was strongly associated with stress. In Ireland, O'Mahoney (2011) found evidence that the burnout dimensions of emotional exhaustion and depersonalisation were linked to stress among Irish nurses. O'Mahoney's findings are thus supported by this study, as are those of an international employee study by Jamal (2010), who found that burnout was associated with the stress dimension of work overload. For Saudi-based nurses, Al-Turki et al. (2010) and Mitchell (2009) established relationships between the burnout dimensions of emotional exhaustion and depersonalisation with stress. However, Mitchell found higher levels of the dimension of personal achievement (burnout) than did Al-Turki et al (2010). In this study, those who reported higher burnout levels also reported high stress levels, especially for items of workload and uncertainty on treatment. Personal

accomplishment (burnout) was linked to the stress items of problems with supervisors, workload and patients' families.

There is therefore sufficient evidence to link the burnout dimensions of emotional exhaustion, depersonalisation and personal accomplishment to job stress. To address burnout, Maslach (1978) recommended training, and Ko (2012) advocated for identifying critical issues and addressing these through job redesign. There is insufficient evidence to link job satisfaction with burnout or job stress.

### **7.2.3 Summary of linkages between survey statements.**

In summary, the subsidiary investigation of all of the items in the survey through exploratory factor analysis resulted in determining workplace issues concerning communications between patients and staff, and between staff categories, which leads to the isolation of nurse individuals. The consequences for this situation are lower professionalism, negative nurse attitudes and a strong desire by participant nurses to leave the organisation. In answer to the research question, there is a weak relationship between burnout and stress dimensions, and between job satisfaction and a burnout dimension. These findings are supported by the literature.

### **7.3 Intention to Leave the Employer: Question 3**

The third research question asked whether the results found for burnout, job satisfaction and job stress would lead to a nurse's intention to leave the employer. This analysis was conducted by hierarchical regression analysis. In step 1, controls were entered for demographic and individuals' data; for step 2, significant linkages were entered for job satisfaction, stress (problem with supervisor), stress (workload) and all three components of burnout: emotional exhaustion, depersonalisation and personal accomplishment. Step 2 contained both the control variables and predictor variables. However, the control variables in

step 1 did not significantly predict intention to leave; together with the predictor variables (step 2), they significantly predicted intention to leave. The hierarchy of the variables in predicting intention to leave was job satisfaction, followed by the stress dimension of uncertainty on treatment. Among the burnout dimensions, emotional exhaustion and personal accomplishment were the significant predictors of intention to leave. Intention to leave tended to decrease as job satisfaction increased. Contrary to expectations, intention to leave increased as stress due to uncertainty on treatment decreased.

Intention to leave was initially aligned to job satisfaction and turnover (Mobley, 1977). Barak et al. (2001) claimed that factors leading to intention to leave were organisational or job-based, and Deery (2008) listed influential variables such as flexible working hours, training during work hours, supervision, adequate resources and improved remuneration systems. These factors were raised by several Saudi researchers in relation to intention to leave (Abualrub & Alghamdi, 2012; Alasmari & Douglas, 2012; Applebaum et al., 2010; Mahran & Al-Nagshabandi, 2012). Al-Ahmadi (2009) associated communications with nurses' job satisfaction, and Almalki et al. (2012) targeted resources that is, nurse shortages of skilled expatriates partially caused by Nitaqat and work-life balance for Saudi nurses. Tharenou and Caulfield (2010) earlier (before Nitaqat in 2011) attributed expatriates' intention to leave to poor cultural adjustment and job dissatisfaction. Almalki et al. (2012) nominated similar factors to Deery (2008): issues regarding flexible work times, job design and working environment, as well as workloads and supervision, with a high proportion intending to leave their Saudi employer (Almalki et al., 2012). Zaghloul et al. (2008) studied Saudi Arabian nurses' intention to leave and found that the influential factors included low respect levels from the physicians, and poor communications and support. El-Jardali et al. (2009) reported that nurse turnover was due to work stress, low pay, supervision and inflexible working hours. Zakari et al. (2010) argued that Saudi-based nurses experience

dissatisfaction, frustration and demoralisation. Mahran and Nagshbandi (2012) added social image to the lack of Saudi nationals in nursing, as well as turnover in the profession. Al Rasheed (2013) cautioned that government policy was now the reverse that is, that nursing was (and is) a social good.

Intention to leave was associated with burnout as a measure among nurses in Saudi hospitals by Alonazi and Omar (2013) and Abualrub and Alghamdi (2012). Abualrub and Alghamdi also used the measure of job stress, which linked to intention to leave. Mitchell (2009) studied burnout in Saudi nurses, finding higher burnout scores for emotional exhaustion and depersonalisation, and an average feeling of burnout for personal accomplishment.

Job stress and turnover were found in Saudi hospitals to be associated with working relationships, role conflict, organisational culture, shift flexibility, career development and the demanding nature of the nursing profession (El-Jardali et al., 2009; Flinkman et al., 2008; Zakari et al., 2010). Al-Hosis et al. (2013) established that a lack of social support from colleagues and superiors led to health issues for nurses. Kamal et al. (2012) highlighted job stress items including Saudi patients and their families, patients' emotional needs, workload, problems with supervisors, uncertainty concerning treatments, conflict with physicians, death and dying, discrimination, and problems with peers. The findings of this research broadly support Kamal et al.'s (2012) findings. Abualrub and Al-Zaru (2008) found that job stress increased turnover intention among nurses in Jordan.

It was noted in the literature review that while job satisfaction, job stress and burnout were aligned by researchers to intention to leave, the results were invariably a matrix of causes concerned with nurses' intention to leave. Further, the items that were grouped into dimensions that supported measures such as those selected for this research produced a multitude of terminology and definitions; items are often duplicated throughout different

measures. While this quantitative research controlled for issues such as duplication and relevance, the validation of other research findings may vary due to the type of analysis undertaken.

To summarise the results for the remaining question, intention to leave was significantly predicted by job satisfaction, stress (uncertainty on treatment) and burnout (emotional exhaustion and personal accomplishment). Further evidence that the majority of respondents intended to leave as soon as possible was balanced by a similar majority who intended to stay.

#### **7.4 Chapter Summary**

The discussion of the findings through the primary, quantitative research and the secondary research of context and the literature survey was presented in this chapter. The first question explored the nature of the nurse sample from the Ha'il region and their experiences and views on their employment. While the nurse resource standard (ratio of nurses to patients) was not established, nurse numbers appeared to be low due to the incidence of overwork, although it was noted that Saudi Arabia intended to significantly extend its healthcare resources. It was observed that, due to the number of expatriate nurses, the length of work permits and thus employee contracts are insufficient to materially assist Saudi Arabia through mentoring young Saudi nurses. While some expatriate men can bring their families into the country under their work permits, women cannot.

The measures used in this study were job stress, burnout, job satisfaction and intention to leave (profession and employer). Organisational issues such as technological change, resources and greater transparency for patients are new stressors for nurses as the institutional focus changes from hospital administration to the patient. The finding for job stress is that a greater focus is required by the hospitals on flexibility for organisational



structures, as well as administration to assist the frontline staff in their work. For burnout and significant dimensions of emotional exhaustion, depersonalisation and personal accomplishment, the respondents also reported issues relating to fatigue and frustration from a lack of job control. Intention to leave had factual aspects such as international job contracts; over half reported their intention to leave as soon as possible, while a similar proportion wanted to stay as long as possible. For the job satisfaction measure, there were also mixed results with no clear indicators.

The second question set out to establish linkages between the measures of job stress, burnout and job satisfaction. Results from factor analysis established strong linkages among the factors leading to communication difficulties that tend to isolate individuals, and this result is influenced by a low level of professionalism, leading to intention to leave, which in turn could be influenced by supervisor or peer support. This finding is well supported in the Saudi literature. For linkages between the measures, evidence was found to link the burnout dimensions of emotional exhaustion, depersonalisation and personal accomplishment to job stress. There was insufficient evidence to link job satisfaction with either of the other measures of burnout or job stress. The last question referred to the measures as predictors for intention to leave the employer. Of the burnout dimensions, emotional exhaustion and personal accomplishment were the significant predictors of intention to leave. Of the stressors, uncertainty on treatment was a predictor of intention to leave, as was burnout (emotional exhaustion and personal accomplishment).

This chapter completes the presentation of the primary and secondary research case. The next chapter contains the thesis summary, its conclusions and recommendations, and benefits and limitations. Finally, suggestions for future research are offered.

## **Chapter Eight: Recommendations and Conclusions**

This chapter concludes the research thesis, which discussed the retention of nurses in Ministry of Health hospitals in the Ha'il province. Valid and reliable instruments were used to measure job stress, burnout and job satisfaction. These were tested against intention to leave, which was the dependent variable. However, the context of this research affects the results, as a high proportion of foreign nursing staff offer generally itinerant labour. Until Saudis adopt nursing as a profession, for both men and women in this segregated society, retention and attraction of nurses will continue to be an issue in the provinces of Saudi Arabia. This chapter will make recommendations for the authorities, the Ministry of Health in Saudi Arabia, and it will present an understanding of Saudi society that emerges from the research, as well as suggestions for future research in this important area of enquiry. The thesis ends with a conclusion.

### **8.1 Strengths of the Study**

The major addition to the body of knowledge and to the Saudi Ministry of Health is addressed in this section. This thesis contributes to the nursing literature through the rigour of a quantitative design, the use of longstanding and respected research models to construct the survey, and the dual aspects of statistical and factor analyses to validate the study. Further, the demographic and individual analyses added context to the research so that the findings are confirmed within the literature and thus conclusions and recommendations can be made.

There is another strength in this research. The intention of this study was to add to the body of knowledge by using longstanding measures of job stress, burnout and job satisfaction to test their effectiveness in predicting intention to leave, and then directly asking the questions relating to intent. Over time, these models have been superseded by interpretations and new models by researchers; however, new models have not been used to the same extent as those employed in this research; that is, intention to leave (Kim et al., 1996), job stress

(French et al., 2000), Maslach's Burnout Inventory (Maslach & Jackson, 1981) and job satisfaction (Price & Mueller, 1981). Apart from Kim et al.'s (1996) intention to leave model, the remaining measures were found to be valid and reliable in the context of the Middle Eastern culture, which is a multicultural English-speaking workplace with a high proportion of foreign workers, and in a remote location. Establishing validity and reliability under these conditions would add significantly to the usefulness of the models for future research.

Another strength of this research for the decision makers in the Saudi government is that this is one of the first studies conducted after the introduction of Nitaqat to identify the effect of the policy on a remote population dependent on foreign skills for its healthcare. While the results for the nurse respondents' intention to leave or stay with their employer were mixed, there were contextual matters to take into account, such as non-Saudis' two-year contracts, Nitaqat effects on contract renewal and the very low Saudi women's workforce participation rate. A further strength of this research is a thoughtful and considerate study of the nurses' workplace environments, their attitudes towards their patients and their fellow team members, and their individual characteristics. All of these add to the Ministry's knowledge of the factors that influence healthcare workers in the provinces especially nurses.

## **8.2 Limitations of the Study**

The limitations of the study include a consideration of the views and experiences of nurses who did not complete the survey, although the entire Ha'il public nurse population was invited to do so. Another limitation is that the participants in this study were mainly from the Hospitals in the Ha'il region, so the findings cannot be generalised to all registered nurses in Saudi Arabia. There is also a limitation of using the model survey instruments of job stress (French et al., 2000), Maslach and Jackson's (1984) burnout scale, Price and Mueller's (1981) job satisfaction scale and the intention to leave scale of Kim et al. (1996) at only one point in time. Another limitation is the fact the nurses were required to complete the

questionnaires while undertaking their normal busy duties. This might have affected how they completed the questionnaires because they were distracted with their professional responsibilities and thus may not have given accurate information. Another limitation is the fact that the questionnaire did not include the effect of their stress on the patients, which is an important aspect to investigate in future research. Finally, there is a limitation of not conducting a representative qualitative survey through interviews or focus groups for Ha'il's nurses. This was beyond the scope of the study, and it was not approved by the Ministry of Health given the disruption to schedules in taking nurses off duty. Thus, the demographic and individual information was requested on the survey instead.

### **8.3 Recommendations of the Study**

The recommendations of this study both relate to Saudi society's inconsistent views regarding nursing as a profession, the government's policies to address ongoing nursing shortages and the hospital workplaces in Ha'il, which is a remote province of Saudi Arabia. As discussed, there are complex and multifaceted reasons for intention to stay or leave an employer; for nurses, there is the additional emotional strain of working with people in distress.

### **8.4 Recommendations for Policy**

#### **8.4.1 Ministry of Health matters**

The World Health Organization (2013) reported that, given its high income status, Saudi Arabia has difficulty producing or attracting sufficient nurses and doctors to meet its needs; thus, it imports the majority of its doctors and nurses as transients. According to its aims under Saudisation, this is both to provide the skilled human resources and to transfer skills to Saudis so they can reach world parity with professional healthcare standards. However, this is not occurring, as the expansion of healthcare facilities in Saudi Arabia is not served by a sufficient number of Saudi youth entering the healthcare professions. Al-

Mahmoud et al. (2012) were unable to determine the characteristics of career choice among students in the nursing profession, and they called for greater cooperation between the Ministries of Education, Higher Education and Health on these issues. Al-Mahmoud et al. (2012) viewed the majority of student demand to be at the diploma level (or nursing aides) rather than an undergraduate degree.

Earlier, the Ministry sought to share the responsibility of providing healthcare by inviting international health insurers and providers into the country, such as Bupa, incidentally receiving awards for the corporation's promotion of Saudi women. However, the growth of private providers in healthcare appears to have stalled at about one-third of all healthcare in Saudi Arabia. The Ministry provides the first-level hospitals, and the private sector largely provides elective and primary care (Al-Kelya & Al-Saggabi, 2013). Thus, the Ministry requires the most skilled health professionals. While this public-private healthcare structure is prominent among nations, there is usually a strong core of indigenous skilled health professionals available, and this is not yet possible in Saudi Arabia.

#### **8.4.2 Ministry of Labour**

The Ministry of Labour is responsible for all employment in Saudi Arabia and thus has responsibility for providing adequate skills where they are needed. In this case, there was no evidence of the Ministry using Nitaqat to train nurses, as the Ministry tends to concentrate on industries such as finance and insurance, or on nonprofessional occupational categories. Being in the domain of the Ministry of Health, nurses were not in an industry targeted under either Saudisation or Nitaqat, as they are employed under valid labour permits. Nevertheless, a competent Saudi nurse, if available, would replace a foreigner. Collaboration between the Ministries should permit the Ministry of Labour, under Nitaqat, to offer Saudi women job pathways to a nursing career.

The conclusions for the government decision makers are that the new professional nursing qualifications may have the unintended consequence of being a barrier for the nursing career aspirations of Saudis particularly males. Importing large numbers of medical professionals does not facilitate healthcare planning for Saudi Arabia, as the Saudi health system is therefore dependent on the fluctuations of the global healthcare labour market, as evidenced by the crisis in global nurse numbers, which lasted some years from 2007. As emerging nations such as India and Pakistan, which are the traditional sources of nurses and doctors, grow their own national healthcare systems, there is a significant risk of a shrinking migratory labour pool. Finally, the public–private healthcare model, while successful for primary healthcare and some provision of hospitals, does not take responsibility for the large-scale critical and advanced medical care that the Saudi government seeks. These responsibilities are associated with the large, well-resourced medical research centres such as the King Faisal Specialist Hospital and Research Centre. This thesis also supports Al-Mahmoud et al. (2012) and Thompson et al. (2013).

The recommendation is for government decision makers and the private healthcare sector to cooperate in creating professional nursing career pathways from secondary school to university. This should be available through Nitaqat; however, earlier intervention in schools (job experience) should be encouraged. Issues regarding the status of a nursing career may be put aside if students and their parents can see a clear connection from school to professional employment. Further, diploma-level nurses should be assisted through Nitaqat, and they should receive time off work to upgrade their qualifications and financial rewards for achievements in areas of critical nurse shortages. For expatriate professionals, a one-to-one mentor assignment could be included in occupations where Saudi skills are most needed.

## **8.5 Recommendations for Practice**

The conclusions for healthcare employers are that the following issues raised in this research should be addressed:

- high insurance premiums and low standards of healthcare evidenced by smaller firms
- international competition for a small pool of registered nurses
- national nurse remuneration based on factors other than competency
- concentration of healthcare provision in the four major cities of Riyadh, Jeddah, Makkah and Dammam.

As the majority employer, the Ministry of Health is aware of these issues and is taking steps to address them. However, a range of socio-religious and legal factors impede progress, including attraction of the profession to young Saudis, which is aligned to literary and humanities qualifications; pay and conditions; and the realities of the healthcare workplace in 2013. These are addressed in the following subsection.

#### **8.5.1 Recruitment**

The recruitment of adults into the nursing profession should be made available; that is, pathways for graduates from other disciplines to retrain as healthcare professionals, including nurses. An issue raised in the literature (Ramady, 2013) and frequently in the media is that Saudis, especially women, choose inappropriate qualifications for career paths. As well as upgrading the nursing diploma certification, authorities may consider offering retraining to adults under Nitaqat to bridge the nurse shortages. This could include the offer of scholarships to support Saudis while they attain a Bachelor of Nursing.

### **8.5.2 Management**

The literature and this study have provided many examples of management issues in the Ministry's hospitals, and it is the conclusion of this research that these were not adequately addressed. The problems concern integration issues for foreign nurses, quality standards, employment standards and communications.

Saudi Arabia's reliance on foreign nurses contributes to high turnover. This study found that few of the respondents remained, or intended to remain, with their hospital employers in the long term; thus, turnover could reach 30 or 40% each year. Given that there are three shifts and disruptions to services through adherence to Islamic rites, quality control and team building is understandably difficult for hospital management.

Given Nitaqat, employment contracts cannot be standardised between Saudis and non-Saudis. Nevertheless, all staff should work as a team towards a common objective the wellbeing of the patients and the aspirations of the profession. Once an employee is part of the healthcare team, there should be equality of treatment for all staff based on competency and achievement. To this end, continuous training should be required to maintain the integrity of the healthcare teams and to achieve and maintain the hospital's strategic, operational and technological goals.

Full-time work is a priority for international nurses who are focused on financial and career objectives; however, family responsibilities are important for Saudi women, and part-time work or part shifts would assist them. For Saudi nurses, employment conditions should therefore include recruitment on merit, planned career paths, a mentoring or peer review system, flexible working conditions, and continuing professional education and associated productivity payments for recruits (Al-Hosis et al., 2013; Kamal et al., 2012). In return, nurses may have to commit to remaining for a fixed time with one hospital (or the Ministry) under Nitaqat. Upgrading diploma-level nurses to degree level should reduce nurses'



administrative tasks. Record-keeping issues should be entered on a database for patients accessed by approved staff.

Workplace recommendations include workshops to identify professional, communications and team-based issues. These can be addressed through professional training and seminars; training staff is a priority for the Ministry, as it establishes Skills Training Centres for all Ministry employees (2013). Periodic surveys of attitudes, professional relationships with senior staff and other professions may also be used to monitor progress. These include physician training on teamwork, roster flexibility and part-time work, and training in managing conflict.

### **8.5.3 Foreign nurses**

Attracting qualified nurses to Ministry hospitals could be difficult under Nitaqat. The frequent turnover of nursing staff is a destabilisation factor to workplace harmony due to the need to frequently introduce new nurses into the hospital culture (El-Amouri & O'Neill, 2011). As the majority of foreign nurses are women, the recommendation for the government is to provide an option for Nitaqat to be flexible to allow family visas and assisted accommodation for five years in order to promote workplace stability and economic growth in more remote provinces.

### **8.5.4 For nursing as a profession**

Society supports altruism; especially in the case of remote communities, self-reliance and support within society are the fundamentals of civilisation. Nurses fulfil society's responsibilities towards its sick, feeble and incapacitated members, and it has always been regarded as an honourable profession. This honour and duty is evident in the regard that Saudis hold for educators (Almalki, 2011); however, there does not appear to be the same honour associated with healthcare. Saudis do not appear to have a cultural or religious regard for institutional caring, relegating that in-house to the extended family (Al-Sibai, 2013).

Modern lifestyles in Saudi Arabia and the rise of materialism are slowly prising apart patriarchal practices. Nitaqat pays women to join the workforce, to seek training and to look for a job. Structural social barriers predominantly segregation impede socioeconomic progress and make commuting and mixed workplaces difficult environments for conservative Islamic culture. Nursing provides the public-sector employment that Saudis prefer, with its Islamic workplaces, enhanced rewards and opportunities for career advancement (Alasmari & Douglas, 2012; Almalki et al., 2012). Thus, necessity and changing attitudes to professions that accord social status should eventually predominate.

### **8.6 Recommendations for Education**

As it currently stands, the conclusion of this thesis is that the nursing profession is not attractive to young Saudis. This differs from the idealism of other young nationals who seek to help society. Further, Saudi youth who are interested in nursing seek diploma-level certification to reduce the number of years of education. While the Saudi government seeks to upgrade nurse education to a bachelor's degree for registration, this adds years to the education load. Despite free education and government support, those at early adulthood contemplating a nursing career may be dissuaded from pursuing more years of study.

A recommendation to address education is to introduce career options earlier in secondary school, pointing out the lifetime advantages of a nursing career, especially for women who can readily use their experience and qualifications.

This study's findings support calls by Al-Mahmoud et al. (2012) and Thompson et al. (2013) for improved nurse education data and nurse educators. Jradi et al. (2013) and Aboshaiqah (2011) are also supported in questioning the government's commitment to educational standards. This issue could be resolved in part by arranging for groups of nursing students to undertake international studies, or by introducing hybrid courses where live lectures are delivered online from prestigious universities. These practices could be

introduced to reach and maintain higher educational standards for nursing students. Higher qualifications of masters' and doctorates should also be available to encourage research that will help find answers to the country's structural issues regarding educating and employing nurses.

### **8.7 Recommendation for Future Research**

As noted above, there is considerable opportunity for future research. Using the constructs and the questionnaire for this study, future researchers may undertake comparable studies in time and place to examine the influence of the Ministry's measures to expand and improve Saudi Arabia's healthcare, especially in remote areas. Studies can also be conducted in other remote Saudi provinces, and also in international comparisons with other Middle Eastern, Islamic or emerging countries that are expanding their healthcare institutions. Other researchers may also select different measures or indeed commit to drawing up new surveys that may better reflect the globalisation of healthcare in order to track the influence of multinational firms that use transfers and promotions around the world to retain staff. This is an interesting new field, and the global healthcare industry may eventually coordinate with the large national research industries to at least equal government investment. Nevertheless, the objectives of governments and profit-making firms will always differ due to their respective natures.

### **8.8 Summary of the Recommendations**

The recommendations for this research relate to government decision makers in the Ministries of Health, Labour (Nitaqat), Education and Higher Education. These are addressed in turn:

- Using a common healthcare database, demand measurements, analyses and reports on individual hospital activities; conduct periodic surveys and audits; and

publish regular and comparable healthcare statistics to track progress (Ministry of Health).

- Inter-ministerial committees between Health, Labour, Education and Higher Education to produce linkages between academic disciplines and courses to promote nursing and ensure that allied courses supporting nursing are at bachelor degree standards.
- Public–private sector cooperation established so that nurse career pathways are set from early secondary school; provide career fairs and workplace introductions.
- Provide higher postgraduate qualifications to promote research and enhance the academic status of the profession (Ministry of Higher Education).
- Provide flexible working conditions for Saudis so that parents may work part time and share family care responsibilities (Ministry of Labour).
- Nitaqat flexibility to provide international nurses with family visas and support in return for longer-term contracts (Ministry of Labour).

Recommendations for hospital administrators/management include:

- Recruitment on the basis of applicants' competency regarding job specifications while providing competency training for individuals to achieve workplace standards (e.g. Saudis may take English or specialist courses, non-Saudis may take induction courses).
- Continual training and education (including workshops) for all members of healthcare teams on identified issue resolution, such as supervision, patient relations, team dynamics, professional advancement, changes in technology and hospital practices.
- Provide flexible work hours, agreed work shifts and address employees' work and family needs.

- Introduce annual performance reviews, awarding salary increments and bonuses on attainment rather than time-based employment.

Observations on the nursing profession:

- There may be social linkages that can be accessed to accord nursing and healthcare professionals the same respect awarded to educators in Saudi Arabia.
- The rise of materialism and travel will continue to erode gender and social barriers that impede the maturation of Saudi society.

## **8.9 Conclusions**

Saudi Arabia's health agencies are unable to attract nationals into employment as doctors, nurses, pharmacists or dentists. However, Saudi health workers appear to fulfil the majority of such positions, and there are significant, although unknown, numbers of Saudis studying health-related professions in dedicated universities and faculties around the nation. In addition, many Saudi nationals are on overseas scholarships around the world. The overall experience of the successful transition of Saudis from the health education system to the workforce is unknown and under-researched, as Al-Shehri and Al-Alwan (2013) noted in their study of information for health workforce planning when they called for a culture of quality with meaningful accreditation systems.

The Saudi health system has universal coverage, although private-sector insurance is mandatory for employers of foreign workers, and there is a gradual increase in private ownership to about one-third of hospitals (Helen Zeigler & Associates, 2013; Ministry of Health, 2013). Rasooldeen (2013) reported that under the ninth economic development plan, the Ministry intends to increase hospital beds in Saudi Arabia from 30,000 in 2010 to 66,000 in 2014. The healthcare budget for 2013 was SAR100 billion (A\$29 billion). However, the Saudi government has distinct barriers in addressing nurse employment, both in attracting expatriates from Pakistan, India and the Philippines, and in Saudisation (Nitaqat). Al-

Mahmoud et al. (2012) contended that professionalising nursing as a career for men and women has not yet been achieved. Indeed, the Ministry of Health (2011) reported very low rates of Saudisation for Ha'il's physicians (3%), nurses (29%) and allied health workers (9%). Al-Shehri and Al-Alwan (2013) noted an issue with statistics for health workforce planning in Saudi Arabia, calling for quality accreditation systems.

The research presented a review of the existing literature on job stress, burnout, job satisfaction and intention to leave. The literature shows that as the Saudi health sector continues to evolve, it is experiencing challenges especially a shortage of Saudi nationals who are willing to embark on a nursing career. This is further affected by gender segregation, so that both male and female nurses are required, although there are no issues with non-national women working in men's wards, low salaries or the Saudi distaste for taking service positions.

The review showed that researchers adopted an array of terms for aspects of the workplace experience over time. There is a case to be made that some terms are repetitive, that workplace characteristics are differently treated by jurisdictions (legislation) and that participant responses in some studies may well be a wish list of conditions and rewards. Thus, a number of research disciplines are effectively studying the same data from different perspectives, and the findings of each may therefore be incompatible in socio-economic reality. Thus, a psychological model for a caring and supportive workplace may be unrealistic in terms of patient–nurse ratios and physical resources particularly in remote towns. Nevertheless, there are issues with a high non-national health workforce, which leads to discontinuity due to management turnover, and thus a lack of responsibility in achieving even mid-term objectives for nursing reform.

This study has provided an explanation of the research and the selection of a descriptive correlational design to explore Ha'il nurses' intention to leave by investigating

extant models from the literature relating to job stress, burnout and job satisfaction. The instrument design was then presented. The setting and sample followed and the sampling method. Ethical and administrative considerations were addressed. The survey content and validity and reliability were addressed, providing an overview of the analysis methods and the analysis design.

The results were presented as outcomes from the various statistical and regression analyses. Descriptive analysis for the first research question on the characteristics of Ha'il nurses broadly confirmed the literature and published statistics, which for Ha'il nurses in 2011 were that 27% were national women and 28% were national men. In this study, 87% of the study sample were women. Of the total sample, 57% were Saudi, with the remainder largely comprising Philipinas and Indians. Issues raised by the nurses included differences in training affecting communications and practices, and government policy changes. New policies during the course of this research included the continuing effects of Nitaqat in increasing Saudi women's workforce participation and decreasing the country's reliance on expatriates, the professionalising of nurse education (just 29% of the sample held university degrees), and the continuing development of the health sector.

The findings for job stress measures were that a lack of staff led to stress. This result concurs with Al Ahmadi (2013) and Almalki et al. (2012). Further, health and safety issues cause stress, which is in agreement with Almutairi (2012). Minority reports of non-nursing tasks and professionalism supported other researchers (Al-Hosis et al., 2013; Almalki et al., 2012; Zakari et al., 2010). There were no direct relevant study findings on the relationship of job stress and intention to leave identified; in this study, the job stressors were indistinguishable from the items in the burnout model.

The results for the burnout and satisfaction models were that intention to leave was significantly predicted by first job satisfaction and then individual items (stressors) from the

burnout measures. Intention to leave tended to decrease as job satisfaction increased. Overall, the respondents reported that although they liked their work, they did not derive satisfaction from it. Participants reported high levels of fatigue, which supports Saudi findings by Al-Turki et al. (2010) and others from different national contexts (Hooper et al., 2010; Hamaideh, 2009; Keshvari et al., 2012). The intention to leave items, whereby one-third reported an intention to leave immediately, was balanced by a majority who wanted to stay as long as possible; this section was inconclusive.

The factor analysis showed that linkages between burnout (emotional exhaustion) and stress (workload, uncertainty of treatment) confirmed results from the Saudi-based literature (Al-Turki et al., 2010; Mitchell, 2009). There is evidence to link burnout to job stress; however, job satisfaction cannot be linked in this study with either burnout or job stress. Thus, the findings for this study are that intention to leave was significantly predicted by job satisfaction, stress (uncertainty on treatment) and burnout (emotional exhaustion and personal accomplishment).

Based on the results from the research questions, the conclusions from this research are that the Ha'il nurse population largely conforms to Saudi demographic profile norms, given a higher proportion of Saudi nationals. The median nurse is a woman under 30 years, without university qualifications and with less than 10 years' experience in the profession due to his or her age. The nurses' prevailing job satisfaction was occasionally subject to stressful experiences such as emotional exhaustion and depersonalisation, which adversely influenced their job satisfaction. As expected, reported job stress and burnout were related, and these occurred with workload and uncertainty on treatment.

Job satisfaction, stress (uncertainty on treatment) and burnout (emotional exhaustion and personal accomplishment) were factors in intention to leave; increased job satisfaction and personal accomplishment decreased intention to leave. One anomaly was a decrease in



uncertainty on treatment, which led to an increase in intention to leave; perhaps greater confidence gave rise to a nurse seeking promotion elsewhere. In fact, intention to leave was reported by the majority of nurses. As the study measures were intrinsic, extrinsic factors were not pursued in this research other than observations of the Saudi healthcare environment.

These findings lead to a conclusion that the current nurse supply is a factor of Saudi society's inconsistent views regarding nursing as a profession, as well as the government's policies to address ongoing nursing shortages and the hospital workplaces in Ha'il, which is a remote province in Saudi Arabia. As discussed, there are complex and multifaceted reasons for intention to stay with or leave an employer; for nurses, there is the additional emotional strain of working with people in distress.

The conclusion of this study is that job stress for Ha'il nurses is caused by resource restraints and changed work practices, including rapid technological changes and a renewed focus on patients' psychological needs and 'need to know'. However, the remaining stressful items staffing, health and safety, and extraneous duties appeared to be local and temporary, and they may be addressed in time by the hospital administration.

The conclusions and recommendations that have resulted from the results are therefore presented as a perspective for the government decision makers and for hospital administration regarding local and foreign nurse employment. For prospective nurses, the conclusions and recommendations relate to nursing as a profession; to workplace conditions, which would support nursing; and to work and family for female nurses.

## References

- Abededdin, L. (2007). Riyadh Military Hospital. Available at:  
[http://www.rkh.med.sa/nursing/index\\_files/Page454.htm](http://www.rkh.med.sa/nursing/index_files/Page454.htm).
- Aboul-Enein, F. H. (2002). Personal contemporary observations of nursing care in Saudi Arabia. *International Journal of Nursing Practice*, 8(4), 228–230.
- Abd Malek, M. (2010). *The impact of job stress on job satisfaction among university staff: Case study at Jabatan Pembangunan*. Masters thesis, University Sains Malaysia. Pinang, Malaysia.
- Abdulwahid, A. (2013, 15 July). 5-day week in private sector from August. *Saudi Gazette*. Accessed 2 December 2013 from  
<http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20130715173582>
- Aboshaiqah, A. (2011, 18–21 October). Barriers for continuing professional development for nurses at King Fahad Medical City, Saudi Arabia. In *Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2011*, Honolulu, HI. Chesapeake, VA: Association for the Advancement of Computers in Education (pp. 11–16).
- Aboshaiqah A. (2013). Nursing work environment in Saudi Arabia. *Journal of Nursing Management*. Accessed 8 October 2013 from  
<http://onlinelibrary.wiley.com/doi/10.1111/jonm.12164/abstract>
- ABS-CBNnews (2013). *Group of Pinay nurses repatriated from Saudi*. Accessed 7 September 2013 from <http://www.abs-cbnnews.com/global-filipino/05/17/13/group-pinay-nurses-repatriated-saudi>
- Abualrub, R. (2004). Job stress, job performance, and social support among hospital nurses. *Journal of Nursing Scholarship*, 36(1), 73–78.
- Abualrub, R. (2010). Work and non-work social support and intent to stay at work among Jordanian hospital nurses. *International Nursing Review*, 57(2), 195–201.
- Abualrub, R. & Alghamdi, M. (2012). The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. *Journal of Nursing Management*, 20(5), 668–678.

- Abualrub, R. & Al-Zaru, I. M. (2008). Job stress, recognition, job performance and intention to stay at work among Jordanian hospital nurses. *Journal of Nursing Management*, 16(3), 227–236.
- Abualrub, R., El-Jardali, F., Jamal, D., Iblasi, A. & Murray, S. (2012). The challenges of working in underserved areas: A qualitative exploratory study of views of policy makers and professionals. *International Journal of Nursing Studies*, 50(1), 73–82.
- Abu-Zinadah, S. (2006). *Nursing situation in Saudi Arabia*. Accessed 19 June 2013 from <http://www.nurse.scfhs.org>
- Al-Ahmadi, H. (2006) Determinants of nurses turnover in psychiatric hospitals in Saudi Arabia [electronic version]. *Journal of Social Sciences*, 34 (4). Available at: <http://pubcouncil.kuniv.edu.kw/jss/english/>
- Al-Ahmadi, H. (2009). Factors affecting performance of hospital nurses in Riyadh region, Saudi Arabia. *International Journal of Health Care Quality Assurance*, 22(1),40–54.
- Al-Ahmadi, H. (2010). Assessment of patient safety culture in Saudi Arabian hospitals. *Quality and Safety in Health Care*, 19(5), e17-e17.
- Al-Ahmadi, H. (2013). Anticipated nurses' turnover in public hospitals in Saudi Arabia. *International Journal of Human Resource Management*. Accessed 8 October 2013 from <http://www.tandfonline.com/doi/abs/10.1080/09585192.2013.792856>
- Alamri, A.S., Rasheed, M.F. & Alfawzan, N.M. (2006) *Reluctance of Saudi Youth Towards the Nursing Profession and the High Rate of Unemployment in Saudi Arabia: Causes and Effects*. King Saud University, Riyadh.
- Alasmari, H. & Douglas, C. (2012). Job satisfaction and intention to leave among critical care nurses in Saudi Arabia. *Middle East Journal of Nursing*, 6(4), 3–12.
- Al-Asmari, S. (2013, 29 April). Low salaries keep Saudis away from nursing jobs. *Arab News*. Accessed 2 June 2013 from <http://www.arabnews.com/node/449778>
- Albrithen, A. & Yalli, N. (2012). Resource and personnel issues in Saudi Arabian health care. *Administration in Social Work*, 37(4), 386–400.
- Aldossary, A. (2013). The role legitimacy of nurses in Saudi Arabia. *Journal of Health Specialties*, 1(1), 28–37.

- Al-Dossary, R., Vail, J. & Macfarlane, F. (2012). Job satisfaction of nurses in a Saudi Arabian university teaching hospital: A cross-sectional study. *International Nursing Review*, 59(3), 424–430.
- Alexander, J., Lichtenstein, R., Oh, H. J. & Ullman, E. (1998). A causal model of voluntary turnover among nursing personnel in long-term psychiatric settings. *Research in Nursing and Health*, 21(5), 415–427.
- Al-Faify, N. (2013). *Relationship between occupational stress and job satisfaction of radiologic technologists working in Saudi Arabia*. (PhD thesis). University of Phoenix, Phoenix, AZ.
- Alhusaini, H.A. (2006) *Obstacles to the Efficiency and Performance of Saudi Nurses at the Ministry of Health, Riyadh Region: Analytical Field Study*. Ministry of Health, Riyadh.
- Al-Hosis, K. F., Mersal., F. A. & Keshk, L. I. (2013). Effects of job stress on health of Saudi nurses working in Ministry of Health hospitals in Qassim region in KSA. *Life Science Journal*, 10(1), 1036–1044.
- Al-Jassem, D. (2013, 9 June). Thousands of jobs waiting to be taken: Jobs mismatch. *Arab News*. Accessed 6 September 2013 from <http://www.arabnews.com/news/454464>
- Alkhamis, A., Hassan, A. & Cosgrove, P. (2013). Financing healthcare in Gulf Cooperation Council countries: A focus on Saudi Arabia. *International Journal of Health Planning and Management*. doi:10.1002/hpm.2213
- Al-Kelya, M. & Al-Saggabi, A. (2013, 18–22 May). Healthcare data in Saudi Arabia: Challenges in collecting, sharing and providing. Presentation at *18th annual International Meeting of the International Society for Pharmacoeconomics and Outcomes Research*, New Orleans, LA. Accessed 26 November 2013 from <http://www.ispor.org/meetings/neworleans0513/releasedpresentations/FORUMArabicNetwork.pdf>
- Al-khasawneh, A. & Futa, S. (2013). The relationship between job stress and nurse performance in the Jordanian hospitals: A case study in King Abdullah the Founder Hospital. *Asian Journal of Business Management*, 5(2), 267–275.

- Allen, D., Benner, P. & Diekelmann, N. (1986). Three paradigms for nursing research: Methodological implications. In P. Chinn (Ed.), *Nursing research methodology: Issues and implications* (pp. 23–38). Rockville, MD: Aspen.
- Al-Mahmoud, S., Mullen, P. & Spurgeon, P. (2012). Saudisation of the nursing workforce: Reality and myths about planning nurse training in Saudi Arabia. *Journal of American Science*, 8(4), 369–379.
- Almalki, A. M. (2011). *Blended learning in higher education in Saudi Arabia: A study of Umm Al-Qura University*. (PhD thesis). RMIT University, Melbourne, Vic.
- Almalki, M., FitzGerald, G. & Clark, M. (2011). Health care system in Saudi Arabia: An overview. *Eastern Mediterranean Health Review*, 17(10), 784–793.
- Almalki, M., FitzGerald, G. & Clark, M. (2012). The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. *BMC Health Services Research*, 12(314). doi:10.1186/1472-6963-12-314
- Al Mutair, A. S., Plummer, V., O'Brien, A. & Clerehan, R. (2013). Providing culturally congruent care for Saudi patients and their families. *Contemporary Nurse*, 2747–2761. Accessed from <http://pubs.e-contentmanagement.com/doi/abs/10.5172/conu.2013.2747>
- Almutairi, A. (2012). *A case study examination of the influence of cultural diversity in the multicultural nursing workforce on the quality of care and patient safety in a Saudi Arabian hospital*. (Professional Doctoral thesis). Queensland University of Technology, Brisbane, Qld.
- Almutairi, A. & McCarthy, A. (2012). A multicultural nursing workforce and cultural perspectives in Saudi Arabia: An overview. *theHealth*, 3(3), 71–74.
- Almutairi, A., Gardner, G. & McCarthy, A. (2012). Perceptions of clinical safety climate of the multicultural nursing workforce in Saudi Arabia: A cross-sectional survey. *Collegian: Journal of the Royal College of Nursing Australia*, 20(3), 187–194.
- Alonazi, N. & Omar, M. (2013). Factors affecting the retention of nurses: A survival analysis. *Saudi Medical Journal*, 34(3). Accessed 4 June 2013 from <http://smj.psmmc.med.sa/ojs/index.php/smj/article/view/1085>
- Alotaibi, M. (2008). Voluntary turnover among nurses working in Kuwaiti hospitals. *Journal of Nursing Management*, 16(3), 237–245.

- Al-Qaaydeh, S., Lassche, M. & Macintosh, C. (2012). Exploratory factor analysis of the pediatric nursing student clinical comfort and worry assessment tool. *Journal of Pediatric Nursing*, 27(5), e39–e43.
- Al-Rasheed, M. (2013). *A most masculine state: Gender, politics and religion in Saudi Arabia*. New York, NY: Cambridge University Press.
- Al-Sa'd, A. (2007) Quantum leap for Saudi nursing. *Health Forum*, 79, 39. Brooks, B.A. & Anderson, M.A. (2004) Nursing work life in acute care. *Journal of Nursing Care Quality*, 19 (3), 269–275.
- Alsayed, S. (2013). Intending to stay: retaining Saudi Arabian nurses: A grounded theory study. PhD candidate, University of Sydney, Sydney, NSW. Accessed 27 May 2013 from [http://sydney.edu.au/nursing/research/current\\_projects/research\\_students/sharifa\\_alsayed.shtml](http://sydney.edu.au/nursing/research/current_projects/research_students/sharifa_alsayed.shtml)
- Al-Shehri, A. & Al-Alwan, I. (2013). Accreditation and culture of quality in medical schools in Saudi Arabia. *Medical Teaching*, 35(S1), S8–S14.
- Al-Sibai, A. (2013, 7 April). Society is still not ready to accept Saudi or Arab nurses. *Saudi Gazette*. Accessed 6 September 2013 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20130408160361>
- Al-Turki, H., Al-Turki, R., Al-Dardas, A., A-Gazal, M., Al-Maghrabi, G., Al-Enizi, N. & Ghareeb, B. (2010). Burnout syndrome among multinational nurses working in Saudi Arabia. *Annals of African Medicine*, 9(4). Accessed 19 October 2013 from <http://www.ajol.info/index.php/aam/article/view/67170>
- Al-Zahrani, A. (2011). The impact of organizational justice on job burnout: A study in private hospitals in Riyadh, Saudi Arabia. *Interdisciplinary Journal of Contemporary Research in Business*, 3(6), 627–637.
- Anabtawi, S. (2012, 13 May). Women no longer need male consent to work Report. *Arab Business*. Accessed 2 December 2013 from <http://www.arabianbusiness.com/saudi-women-no-longer-need-male-consent-work-report-457596.html>
- Anderson, M. & Taylor, H. (2009). *Sociology: The essentials* (4th ed.). Belmont, CA: Thomson Wadsworth.

- Andrew, S. & Halcomb, E. (Eds.). (2009). *Mixed methods research for nursing and the health sciences*. Oxford, England: Wiley-Blackwell.
- Applebaum, D., Fowler, S., Fiedler, N., Osinubi, O. & Robson, M. (2010). The impact of environmental factors on nursing stress, job satisfaction, and turnover intention. *Journal of Nursing Administration*, 40(7/8), 323–328.
- Arab, A. (2012). *The role of social-problem solving and social support and their relation to well-being in young Saudi women*. (Doctoral thesis). School of Psychology, University of Southampton, Southampton, England.
- Atallah, M., Hamdan-Mansour, A., Al-Sayed, M. & Aboshaiqah, A. (2013). Patients' satisfaction with the quality of nursing care provided: The Saudi experience. *International Journal of Nursing Practice*. Accessed 20 October 2013 from <http://onlinelibrary.wiley.com/doi/10.1111/ijn.12102/abstract?deniedAccessCustomisedMessage=&userIsAuthenticated=false>
- Azri, B. (2011). Job satisfaction: A literature review. *Management Research and Practice*, 3(4), 77–86. Accessed 12 August 2013 from <http://mrp.ase.ro/no34/f7.pdf>
- Bai, J. & Ng, S. (2005). Tests for skewness, kurtosis, and normality for time series data. *Journal of Business and Economic Statistics*, 23(1), 49–60.
- Bakhsh, Z., Mansour, A., Mensah, E., Croke, K., Drummond, J. & Koerber, A. (2012). Factors affecting the internal brain drain of Saudi healthcare professionals. *Saudi Journal of Medicine*, 33(12), 1285–1289.
- Barak, M., Nissly, J. & Levin, A. (2001). Antecedents to retention and turnover among child welfare, social work, and other human service employees: What can we learn from past research? A review and metanalysis. *Social Service Review*, 75(4), 625–661.
- Barrett, L. & Yates, P. (2002). Oncology/haematology nurses: A study of job satisfaction, burnout, and intention to leave the specialty. *Australian Health Review*, 25(3), 109–121.
- Bartholomew, D., Knott, M. & Moustaki, I. (2011). *Latent variable models and factor analysis: A unified approach* (3rd ed.). Chichester, England: Wiley.
- Bateman, T. & Organ, D. (1983). Job satisfaction and the good soldier: The relationship between affect and employee 'citizenship'. *Academy of Management Journal*, 26(4), 587–595.

- Beckstead, J. (2009). Content validity is naught. *International Journal of Nursing Studies*, 46(9), 1274–1283.
- Beehr, T., & Newman, J. (1978). Job stress, employee health, and organizational effectiveness: a facet analysis, model, and literature review. *Personnel Psychology*, 31(4), 665-699.
- Bernstein, D. (2013). *Essentials of psychology*. Mason, OH: South-western/Cengage Learning.
- Black, L., Spetz, J. & Harrington, C. (2010). Nurses who do not nurse: Factors that predict non-nursing work in the US registered nursing labor market. *Nursing Economics*, 28(4), 245–254.
- Bogg, J. & Cooper, C. (1995). Job satisfaction, mental health, and occupational stress among senior civil servants. *Human Relations*, 48(3), 327–341.
- Bond, F. & Bunce, D. (2001). Job control mediates change in a work reorganization intervention for stress reduction. *Journal of Occupational Health Psychology*, 6(4), 290–302.
- Borg, M., Riding, R. & Falzon, J. (1991). Stress in teaching: A study of occupational stress and its determinants, job satisfaction and career commitment among primary schoolteachers. *Educational Psychology: An International Journal of Experimental Educational Psychology*, 11(1), 59–75.
- Bowling, A. (2009). *Research methods in health: Investigating health and health services*. Maidenhead, England: Open University Press (McGraw-Hill International).
- Bozionelos, N. (2009). Expatriation outside the boundaries of the multinational corporation: A study with expatriate nurses in Saudi Arabia. *Human Resource Management*, 48(1), 111–134.
- Brayfield, A. & Rothe, H. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307–311.
- Brewer, C., Kovner, C., Greene, W., Tukov-Shuser, M. & Djukic, M. (2012). Predictors of actual turnover in a national sample of newly licensed registered nurses employed in hospitals. *Journal of Advanced Nursing*, 68(3), 521–538.



- Brewer, E. & McMahan, J. (2004). Job stress and burnout among industrial and technical teacher educators. *Journal of Vocational Education Research*, 28(2), 125–140.
- Bridgeman, C. (2013). *Caregiver burnout and job satisfaction among palliative and non-palliative nurses: A mixed-methods study*. (PhD thesis). University of Maryland, Baltimore, MD.
- Brooks, D., Bradt, J., Eyre, L., Hunt, A. & Dileo, C. (2010). Creative approaches for reducing burnout in medical personnel. *Arts in Psychotherapy*, 37(3), 255–263.
- Bruursema, K., Kessler, S. & Spector, P. (2011). Bored employees misbehaving: The relationship between boredom and counterproductive work behaviour. *Work & Stress*, 25(2), 93–107.
- Burns, N. & Grove, S. (2010). *Understanding nursing research: Building an evidence-based practice* (5th ed.). Philadelphia, PA: Elsevier Health Sciences.
- Cai, C. & Zhou, Z. (2009). Structural empowerment, job satisfaction, and turnover intention of Chinese clinical nurses. *Nursing & Health Sciences*, 11(4), 397–403.
- Campbell, D. (2013). Spirituality, stress, and retention of nurses in critical care. *Dimensions of Critical Care Nursing*, 32(2), 78–83.
- Carrington, D. (2013, 6 September). Twitter campaign highlights poverty in Saudi Arabia. *CNN*. Accessed 7 September 2013 from <http://edition.cnn.com/2013/09/05/world/meast/twitter-campaign-highlights-poverty/>  
News
- Carsten, J. & Spector, P. (1987). Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the Muchinsky model. *Journal of Applied Psychology*, 72(3), 374–381.
- Central Department of Statistics and Information. (2013a). *Labour force 2013*. Accessed 27 May 2013–13 December 2013 from <http://www.cdsi.gov.sa/english/>
- Central Department of Statistics and Information. (2013b). *Saudi population 2012*. Accessed 27 May 2013–13 December 2013 from <http://www.cdsi.gov.sa/english/>
- Central Department of Statistics and Information. (2013c). *Manpower research bulletin, 2013, Round 1*. Accessed 2 December 2013 from <http://www.cdsi.gov.sa/english>

- Chan, M. F., Luk, A. L., Leong, S. M., Yeung, S. M. & Van, I. K. (2009). Factors influencing Macao nurses' intention to leave current employment. *Journal of Clinical Nursing*, 18(6), 893–901.
- Chang, A., Gardner, G., Duffield, C. & Ramis, M. (2012). Advanced practice nursing role development: Factor analysis of a modified role delineation tool. *Journal of Advanced Nursing*, 68(6), 1369–1379.
- Chapman, S., Spetz, J., Seago, J., Kaiser, J., Dower, C. & Herrera, C. (2009). How have mandated nurse staffing ratios affected hospitals? Perspectives from California hospital leaders. *Journal of Healthcare Management*, 54(5), 321–335.
- Chatty, D. (2013). Rejecting authenticity in the desert landscapes of the modern Middle East: Development processes in the Jiddat il'harasiis, Oman. In S. Hafez & S. Slyomovics (Eds.), *Anthropology of the Middle East and North Africa: Into the new millennium*, Bloomington, IN: University of Indiana Press.
- Chen, H. C., Chu, C. I., Wang, Y. H. & Lin, C. (2008). Turnover factors revisited: A longitudinal study of Taiwan-based staff nurses. *International Journal of Nursing Studies*, 45(2), 277–285.
- Chen, I. H. (2013, 16–20 November). How can turnover of long-term care Taiwanese nurses be reduced? Paper presented at the 42nd Biennial Convention of the Sigma Beta Tau International Honor Society of Nursing, Indianapolis, IN.
- Cherniss, C. (1980). *Staff burnout: Job stress in the human services*. Beverly Hills, CA: Sage.
- Chiu, Y. L., Chung, R. G., Wu, C. S. & Ho, C. H. (2009). The effects of job demands, control, and social support on hospital clinical nurses' intention to turn over. *Applied Nursing Research*, 22(4), 258–263.
- Chiu-ying, Y., Hsiao, A. & Hsu, S. (2013, 1 May). Unions, labor groups to march, rally in Taipei today. *Taipei Times*. Accessed 8 August 2013 from <http://www.taipeitimes.com/News/front/archives/2013/05/01/2003561143>
- Christen, M., Iyer, G. & Soberman, D. (2006). Job satisfaction, job performance, and effort: A reexamination using agency theory. *Journal of Marketing*, 70(1), 137–150.
- Clark, A. M. (1998). The qualitative–quantitative debate: Moving from positivism and confrontation to post-positivism and reconciliation. *Journal of Advanced Nursing*, 27(6), 1242–1249.

- Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24(4), 385–396.
- Colliers International. (2012). *Kingdom of Saudi Arabia: Healthcare overview*. Accessed 29 November 2013 from <http://www.colliers.com>
- Common, R. (2013). When policy diffusion does not lead to policy transfer. In P. Carroll & R. Common (Eds.), *Policy transfer and learning in public policy and management: International contexts, content and development*. Abingdon, England: Routledge.
- Corpin, D. (2013, 20 May). Kingdom, Philippines sign labor agreement: More rights, better protection for Filipino household workers. *Saudi Gazette*. Accessed 8 September 2013 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20130520166522>
- Council for Cooperative Health Insurance. (2013). *Secretariat*. Accessed 6 September 2013 from <http://www.cchi.gov.sa/en/secretariat/Pages/default.aspx>
- Cowin, L. (2002). *The self-concept of nurses and its relationship to job satisfaction and retention*. (PhD thesis). University of Western Sydney, Sydney, NSW.
- Crank, J. & Caldero, M. (1991). The production of occupational stress in medium-sized police agencies: A survey of line officers in eight municipal departments. *Journal of Criminal Justice*, 19(4), 339–349.
- Creswell, J. & Plano Clark, V. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage.
- Cudney, S., Craig, C., Nichols, E. & Weinert, C. (2012). Barriers to recruiting an adequate sample in rural nursing research. *Online Journal of Rural Nursing and Health Care*, 4(2), 78–88.
- Cushway, D., Tyler, P. & Nolan, P. (1996). Development of a stress scale for mental health professionals. *British Journal of Clinical Psychology*, 35(2), 279–295.
- Daley, M. (1979). ‘Burnout’: Smoldering problem in protective services. *Social Work*, 24(5), 375–379.

- Dasgupta, P. (2012). Effect of role ambiguity, conflict and overload in private hospitals' nurses' burnout and mediation through self efficacy. *Journal of Health Management, 14*(4), 513–534.
- Deery, M. (2008). Talent management, work-life balance and retention strategies. *International Journal of Contemporary Hospitality Management, 20*(7), 792–806.
- Demerouti, E., Bakker, A., Nachreiner, F. & Schaufeli, W. (2001). The job demands–resources model of burnout. *Journal of Applied Psychology, 86*(3), 499–512.
- Dichter, M., Galatsch, M. & Schmidt, S. (Eds.). (2010). *Nurses early exit study: Follow-up, international colloquium, Copenhagen, Denmark*. Accessed 8 August 2013 from <http://www.next.uni-wuppertal.de/EN/index.php?book-publication>
- Diestel, S. & Schmidt, K. (2010). Direct and interaction effects among the dimensions of the Maslach Burnout Inventory: Results from two German longitudinal samples. *International Journal of Stress Management, 17*(2), 159–180.
- Doherty, N. (2013). Understanding the self-initiated expatriate: A review and directions for future research. *International Journal of Management Reviews, 15*(4), 447–469.
- Economic Times (The). (2013, 29 March). *India raises concern over Saudi's new labour policy: Rule may hit 3 lakh Indian workers*. Accessed 8 October 2013 from [http://articles.economictimes.indiatimes.com/2013-03-29/news/38125640\\_1\\_indian-ambassador-indian-embassy-saudi-minister](http://articles.economictimes.indiatimes.com/2013-03-29/news/38125640_1_indian-ambassador-indian-embassy-saudi-minister)
- Edwards, J. & Cooper, C. (1990). The person–environment fit approach to stress: Recurring problems and some suggested solutions. *Journal of Organizational Behavior, 11*(4), 293–307.
- El-Amouri, S. & O'Neill, S. (2011). Supporting cross-cultural communication and culturally competent care in the linguistically and culturally diverse hospital settings of UAE. *Contemporary Nurse, 39*(2), 240–255.
- El-Gilany, A., El-Wehady, A. & Amr, M. (2010). Violence against primary health care workers in Al-Hassa, Saudi Arabia. *Journal of Interpersonal Violence, 25*(4), 716–734.
- El-Jardali, F., Dimassi, H., Dumit, N., Jamal, D. & Mouro, G. (2009). A national cross-sectional study on nurses' intent to leave and job satisfaction in Lebanon: Implications

- for policy and practice. *BMC Nursing*, 8(3). Accessed 11 August 2013 from <http://www.biomedcentral.com/1472-6955/8/3>
- El-Jardali, F., Murray, S., Dimassi, H., Jamal, D., AbuAlRub, R., Al-Surimi, K., Clinton, M. & Dumit, N. (2013). Intention to stay of nurses in current posts in difficult-to-staff areas of Yemen, Jordan, Lebanon and Qatar: A cross-sectional study. *International Journal of Nursing Studies*, 50(11), 1481–1494.
- Fair Work Australia. (2012). *Decision: Nurses and midwives (Victorian public sector) (Single interest employers) enterprise agreement 2012–2016*. Accessed 7 October 2013 from <http://www.fwc.gov.au/documents/agreements/fwa/AE895073.pdf>
- Faragher, E., Cass, M. & Cooper, C. (2005). The relationship between job satisfaction and health: A meta-analysis. *Occupational and Environmental Medicine*, 62(2), 105–112.
- Felps, W., Mitchell, T., Hekman, D., Lee, T., Holtom, B. & Harman, W. (2009). Turnover contagion: How coworkers' job embeddedness and job search behaviors influence quitting. *Academy of Management Journal*, 52(3), 545–561.
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London, England: Sage.
- Fielden, J. (2012). Managing the transition of Saudi new graduate nurses into clinical practice in the Kingdom of Saudi Arabia. *Journal of Nursing Management*, 20(1), 28–37.
- Firth, L., Mellor, D., Moore, K., & Loquet, C. (2004). How can managers reduce employee intention to quit? *Journal of Managerial Psychology*, 19(2), 170-187.
- Flick, U. (2009). *An introduction to qualitative research* (4th ed.). London, England: Sage.
- Flinkman, M., Laine, M., Leino-Kilpi, H., Hasselhorn, H. & Salanterä, S. (2008). Explaining young registered Finnish nurses' intention to leave the profession: A questionnaire survey. *International Journal of Nursing Studies*, 45(5), 727–739.
- Flinkman, M., Leino-Kilpi, H. & Salanterä, S. (2010). Nurses' intention to leave the profession: Integrative review. *Journal of Advanced Nursing*, 66(7), 1422–1434.
- Forstenlechner, I. & Rutledge, E. (2011). The GCC's 'Demographic imbalance': Perceptions, realities and policy options. *Middle East Policy*, 18(4), 25–43.
- Fox, S., Spector, P. & Miles, D. (2001). Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions. *Journal of Vocational Behavior*, 59(3), 291–309.

- Frankenhaeuser, M., Lundberg, U., Fredrikson, M., Melin, B., Tuomisto, M., Myrsten, A.-L., . . . Wallin, L. (1989). Stress on and off the job as related to sex and occupational status in white-collar workers. *Journal of Organizational Behavior*, *10*(4), 321–346.
- French, S., Lenton, R., Walters, V. & Eyles, J. (2000). An empirical evaluation of an expanded nursing stress scale. *Journal of Nursing Measurement*, *8*(2), 161–178.
- Freudenberger, H. J. (1974). Staff burnout. *Journal of Social Issues*, *30*(1), 159–165.
- Furnham, A., Brewin, C. & O’Kelly, H. (2004). The user manual of occupational attributional styles questionnaire and attitudes to work. *Human Relations*, *47*(12). Accessed 21 September 2013 from [http://www.cymeon.com/oas/oasq\\_on\\_net.asp](http://www.cymeon.com/oas/oasq_on_net.asp)
- Galán, F., Sanmartín, A., Polo, J. & Giner, L. (2011). Burnout risk in medical students in Spain using the Maslach Burnout Inventory–Student Survey. *International Archives of Occupational and Environmental Health*, *84*(4), 453–459.
- Gakovic, A. & Tetric, L. (2003). Psychological contract breach as a source of strain for employees. *Journal of Business and Psychology*, *18*(2), 235–246.
- Garrosa, E., Rainho, C., Moreno-Jiménez, B. & Monteiro, M. (2010). The relationship between job stressors, hardy personality, coping resources and burnout in a sample of nurses: A correlational study at two time points. *International Journal of Nursing Studies*, *47*(2), 205–215.
- Ghafoor, S., Khan, U., Idrees, F., Javed, B. & Ahmed, F. (2011). Evaluation of expatriates performance and their training on international assignments. *Interdisciplinary Journal of Contemporary Research in Business*, *3*(5), 335–351.
- Gill, A., Flaschner, A. & Shachar, M. (2006). Mitigating stress and burnout by implementing transformational-leadership. *International Journal of Contemporary Hospitality Management*, *18*(6), 469–481.
- Gillespie, B., Chaboyer, W. & Wallis, M. (2010). Sampling from one nursing specialty group using two different approaches. *Journal of Advanced Perioperative Care*, *4*(2), 78–85.
- Glass, D., McKnight, J. & Valdimarsdottir, H. (1993). Depression, burnout, and perceptions of control in hospital nurses. *Journal of Consulting and Clinical Psychology*, *61*(1), 147–155.

- Goddard, R. & Goddard, M. (2006). Beginning teacher burnout in Queensland schools: Associations with serious intentions to leave. *Australian Educational Researcher*, 33(2), 61–75.
- Government of Western Australia. (2012). *Nursing and midwifery in Western Australia: Salary*. Accessed 7 September 2013 from <http://www.nursing.health.wa.gov.au/working/salary.cfm>
- Gray-Toft, P. & Anderson, J. (1981). The Nursing Stress Scale: Development of an instrument. *Journal of Behavioral Assessment*, 3(1), 11–23.
- Green, D., Walkey, F. & Taylor, A. (1991). The three-factor structure of the Maslach Burnout Inventory: A multicultural, multinational confirmatory study. *Journal of Social Behavior & Personality*, 6(3), 453–472.
- Griffin, M., Hogan, N., Lambert, E., Tucker-Gail, K. & Baker, D. (2010). Job involvement, job stress, job satisfaction, and organizational commitment and the burnout of correctional staff. *Criminal Justice and Behavior*, 37(2), 239–255.
- Griffiths, P. & Murrells, T. (2010). Reliability assessment and approaches to determining agreement between measurements: Classic methods paper. *International Journal of Nursing Studies*, 47(8), 937–938.
- Grunfeld, E., Whelan, T., Zitzelsberger, L., Willan, A., Montesanto, B. & Evans, W. (2000). Cancer care workers in Ontario: Prevalence of burnout, job stress and job satisfaction. *Canadian Medical Association Journal*, 163(2), 166–169.
- Guntur, R., Haerani, S. & Hasan, M. (2012). The influence of affective, continuance and normative commitments on the turnover intentions of nurses at Makassar's private hospitals in Indonesia. *African Journal of Business Management*, 6(38), 10303–10311.
- Guay, F., Mageau, G. & Vallerand, R. (2003). On the hierarchical structure of self-determined motivation: A test of top-down, bottom-up, reciprocal, and horizontal effects. *Personality and Social Psychology Bulletin*, 29(8), 992–1004.
- Hair, J., Black, W., Babin, B. & Anderson, R. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River, NJ: Pearson Education.

- Harry, W. (2007). Employment creation and localization: The crucial human resource issues for the GCC. *International Journal of Human Resource Management*, 18(1), 132–146.
- Halbesleben, J. R. (2010). A meta-analysis of work engagement: Relationships with burnout, demands, resources, and consequences. In A. Bakker and M. Leiter (Eds.), *Work engagement: A handbook of essential theory and research*. Hove, England: Psychology Press.
- Hamaideh, S. H. (2011). Burnout, social support, and job satisfaction among Jordanian mental health nurses. *Issues in Mental Health Nursing*, 32(4), 234–242.
- Harakati, M., Shaheen, F., Tamim, H., Taher, S., Qublan, A. & Sayyari, A. (2011). Saudi patients and health care providers: Divergent perceptions of illnesses and their symptoms. *Anthropology of the Middle East*, 6(1), 35–46.
- Hatem Abbas Ghazzawi & Co. (2013). *Employment law*. Accessed 1 December 2013 from [http://www.saudilegal.com/saudilaw/17\\_law.html](http://www.saudilegal.com/saudilaw/17_law.html)
- Haybatollahi, S. (2009). *Work stress in the nursing profession: An evaluation of organizational causal attribution*. (PhD thesis). University of Helsinki, Helsinki, Finland.
- Hayes, B., Bonner, A. & Douglas, C. (2013, 6–8 June). The levels of job satisfaction, stress and burnout in Australian and New Zealand haemodialysis nurses. Paper presented at *Renal Society of Australasia Conference*, Hobart, Tas.
- Helen Zeigler & Associates. (2013). *The healthcare system of Saudi Arabia*. Accessed 4 September 2013 from <http://www.hziegler.com/articles/healthcare-system-of-saudi-arabia.html>
- Herzberg, F., Mausner, B. & Snyderman, B. (1959). *The motivation to work* (2nd ed.). New York, NY: John Wiley.
- Hobfoll, S. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology: An International Review*, 50(3), 337–421.
- Holloway, I. & Wheeler, S. (2010). *Qualitative research in nursing and healthcare* (3rd ed.). Chichester, England: Wiley.



- Hooper, C., Craig, J., Janvrin, D. R., Wetsel, M. A. & Reimels, E. (2010). Compassion satisfaction, burnout, and compassion fatigue among emergency nurses compared with nurses in other selected inpatient specialties. *Journal of Emergency Nursing*, 36(5), 420–427.
- Hsu, H. Y., Chen, S. H., Yu, H. Y. & Lou, J. H. (2010). Job stress, achievement motivation and occupational burnout among male nurses. *Journal of Advanced Nursing*, 66(7), 1592–1601.
- Hu, S. X., Luk, A., Lok, G. K. & Hsaio, J.-K. (2012, 30 July–3 August). Effects of hazardous work conditions on burnout among nurses of a general hospital in Macau. Paper presented at the *23rd International Nursing Research Congress*, Brisbane, Qld.
- Human Resources Development Fund. (n.d.). *The guide book*. Accessed 7 September 2013 from <http://www.hrdf.org.sa/downloads/GuideBookEng.pdf>
- Iacovides, A., Fountoulakis, K., Kaprinis, S. & Kaprinis, G. (2003). The relationship between job stress, burnout and clinical depression. *Journal of Affective Disorders*, 75(3), 209–221.
- Iglesias, M. & de Bengoa Vallejo, R. (2013). Prevalence and relationship between burnout, job satisfaction, stress, and clinical manifestations in Spanish critical care nurses. *Dimensions of Critical Care Nursing*, 32(3), 130–137.
- International Directory of Company Histories. (2007). *Saudi Aramco*. Satmford, CT: Gale Cengage.
- Jackson, S. & Maslach, C. (1982). After-effects of job-related stress: Families as victims. *Journal of Organizational Behavior*, 3(1), 63–77.
- Jamal, M. (2010). Burnout among Canadian, Chinese, Malaysian and Pakistan employees: An empirical examination. *International Management Review*, 6(1), 32–42.
- Janssen, P., De Jonge, J. & Bakker, A. (1999). Specific determinants of intrinsic work motivation, burnout and turnover intentions: A study among nurses. *Journal of Advanced Nursing*, 29(6), 1360–1369.
- Jaramillo, F., Mulki, J. & Boles, J. (2011). Workplace stressors, job attitude, and job behaviors: Is interpersonal conflict the missing link? *Journal of Personal Selling and Sales Management*, 31(3), 339–356.

- Jex, S. (1998). *Stress and job performance: Theory, research, and implications for managerial practice*. Thousand Oaks, CA: Sage.
- Jradi, H., Zaidan, A. & Shehri, A. (2013). Public health nursing education in Saudi Arabia. *Journal of Infection and Public Health*, 6(2), 63–68.
- Jourdain, G. & Chênevert, D. (2010). Job demands-resources, burnout and intention to leave the nursing profession: A questionnaire survey. *International Journal of Nursing Studies*, 47(6), 709–722.
- Judge, T., Thoresen, C., Bono, J. & Patton, G. (2001). The job satisfaction–job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127(3), 376–407.
- Kaddourah, B., Khalidi, A., Abu-Shaheen, A. & Al-Tannir, M. (2013). Factors impacting job satisfaction among nurses from a tertiary care centre. *Journal of Clinical Nursing*, 22(21/22), 3153–3159.
- Kalleberg, A. (1977). Work values and job rewards: A theory of job satisfaction. *American Sociological Review*, 42(1), 124–143.
- Kalliath, T., O’Driscoll, M., Gillespie, D., Bluedorn, A. (2000). A test of the Maslach Burnout Inventory in three samples of healthcare professionals. *Work & Stress*, 14(1), 35–50.
- Kamal, S., Al-Dhshan, M., Abu-Salameh, K., Abuadas, F. & Hassan, M. (2012). The effect of nurses’ perceived job related stressors on job satisfaction in Taif governmental hospitals in Kingdom of Saudi Arabia. *Journal of American Science*, 8(3), 119–125.
- Kammeyer-Mueller, J., Simon, L. & Judge, T. (2013). A head start or a step behind? Understanding how dispositional and motivational resources influence emotional exhaustion. *Journal of Management*. doi:10.1177/0149206313484518
- Kääriäinen, M., Kanste, O., Elo, S., Pölkki, T., Miettunen, J. & Kyngäs, H. (2011). Testing and verifying nursing theory by confirmatory factor analysis. *Journal of Advanced Nursing*, 67(5), 1163–1172.
- Karout, N., Abdelaziz, S., Goda, M., AlTuwaijri, S., Almostafa, N., Ashour, R. & Alradi, H. (2013). Cultural diversity: A qualitative study on Saudi Arabian women’s experience and perception of maternal health services. *Journal of Nursing Education and Practice*, 3(11), 172–182.

- Kaschka, W., Korczak, D. & Broich, K. (2011). Burnout: A fashionable diagnosis. *Deutsches Ärzteblatt International*, 108(46), 781–787.
- Keller, R. (2001). Cross-functional project groups in research and new product development: Diversity, communications, job stress, and outcomes. *Academy of Management Journal*, 44(3), 547–555.
- Keshvari, M., Mohammadi, E., Boroujeni, A. & Farajzadegan, Z. (2012). Burnout: interpreting the perception of Iranian primary rural health care providers from working and organizational conditions. *International Journal of Preventive Medicine*, 3(Suppl.1), S79–S88.
- Khaleej Times. (2013, 5 July). *Hit by Nitaqat, Indians in Saudi Arabia regularising stay*. Accessed 8 October 2013 from <http://www.khaleejtimes.com/kt-article-display-1.asp?xfile=/data/todaysfeatures/2013/July>
- Khaliq, A. (2012). The Saudi healthcare system: A view from the minaret. *World Health Population*, 13(3), 52–64.
- Kim, Y.K., Hwang, S., Kim, I., Kim, J.S., Oh, H.Y., Lee, J.K., Jung, E.S., Choi, G.Y., & Choi, J.Y. (2012). Analysis of Quantitative Research Published by Korean Journal of Adult Nursing (1989~ 2011). *Korean Journal of Adult Nursing*, 24(1), 85-97.
- Kim, S.-W., Price, J., Mueller, C. & Watson, T. (1996). The determinants of career intent among physicians at a U.S. Air Force hospital. *Human Relations*, 49(7), 947–976.
- King Faisal Specialist Hospital & Research Centre. (2011). *Development of nursing education in Saudi Arabia*. Accessed 6 September 2013 from <http://www.kfshrc.edu.sa/wps/portal/En/>
- King, N. (2013). Foreign specialists hired to boost Saudi health services. *Arab Business*. Accessed 26 November 2013 from <http://www.arabianbusiness.com/foreign-specialists-hired-boost-saudi-health-services-488691.html>
- Kinman, G. (1998). *Pressure points: A survey into the causes and consequences of occupational stress in UK academic and related staff*. London, England: Association of University Teachers.
- Ko, C. M. (2012). A study on relationship between recovery experience and the burnout among hospital nurses. *Korean Journal of Occupational Health Nursing*, 21(2), 87–97.

- Kovner, C., Brewer, C., Greene, W. & Fairchild, S. (2009). Understanding new registered nurses' intent to stay at their jobs. *Nursing Economics*, 27(2), 81–98.
- Kozak, A., Kersten, M., Schillmöller, Z. & Nienhaus, A. (2013). Psychosocial work-related predictors and consequences of personal burnout among staff working with people with intellectual disabilities. *Research in Developmental Disabilities*, 34(1), 102–115.
- Kristof-Brown, A. & Jansen, K. (2007). Issues of person–organization fit. In C. Ostrov & T. Judge (Eds.), *Perspectives on organizational fit*. New York, NY: Taylor & Francis.
- Kunyk, D. & Olson, J. K. (2001). Clarification of conceptualizations of empathy. *Journal of Advanced Nursing*, 35(3), 317–325.
- Kuo, H. T., Lin, K. C. & Li, I. (2013). The mediating effects of job satisfaction on turnover intention for long-term care nurses in Taiwan. *Journal of Nursing Management*. doi:10.1111/jonm.12044
- Lambrou, P., Kontodimopoulos, N. & Niakas, D. (2010). Motivation and job satisfaction among medical and nursing staff in a Cyprus public general hospital. *Human Resources for Health*, 8(26), 1–9.
- Landry, M. & Taylor, J. (2012). The Saudi health care system: View from the minaret: More similarities than differences. *World Health and Population*, 13(3), 65–67.
- LaRocco, J., House, J. & French, J. (1980). Social support, occupational stress, and health. *Journal of Health and Social Behavior*, 21(3), 202–218.
- Latack, J. (1986). Coping with job stress: Measures and future directions for scale development. *Journal of Applied Psychology*, 71(3), 377–385.
- Lautizi, M., Laschinger, H. & Ravazzolo, S. (2009). Workplace empowerment, job satisfaction and job stress among Italian mental health nurses: An exploratory study. *Journal of Nursing Management*, 17(4), 446–452.
- Lee, R. & Ashforth, B. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123–133.
- Lee, S. P., Bunpitcha, C. & Ratanawadee, C. (2011). Factors predicting organizational commitment among nurses in state hospitals, Malaysia. *International Medical Journal*, 10(2), 21–28.

- Lee, T. & Mowday, R. (1987). Voluntarily leaving an organization: An empirical investigation of Steers and Mowday's model of turnover. *Academy of Management Journal*, 30(4), 721–743.
- Lee, V. & Henderson, M. (1996). Occupational stress and organizational commitment in nurse administrators. *Journal of Nursing Administration*, 26(5), 21–28.
- Lee, Y. W., Dai, Y. T., Park, C. G. & McCreary, L. (2013). Predicting quality of work life on nurses' intention to leave. *Journal of Nursing Scholarship*, 45(2), 160–168.
- Leiter, M. & Maslach, C. (2009). Nurse turnover: The mediating role of burnout. *Journal of Nursing Management*, 17(3), 331–339.
- Li, J., Shang, L., Galatsch, M., Siegrist, J., Müller, B. & Hasselhorn, H. (2013). Psychosocial work environment and intention to leave the nursing profession: A cross-national prospective study of eight countries. *International Journal of Health Services*, 43(3), 519–536.
- Liu, K., You, L. M., Chen, S., Hao, Y., Zhu, X., Zhang, L. & Aiken, L. (2012). The relationship between hospital work environment and nurse outcomes in Guangdong, China: A nurse questionnaire survey. *Journal of Clinical Nursing*, 21(9/10), 1476–1485.
- Locke, E. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4), 309–336.
- Locke, E. (1976). The nature and causes of job satisfaction. In M. Dunnette (Ed.), *Handbook of industrial and organizational psychology*. Chicago, IL: Rand McNally.
- Lohrmann, C., Dijkstra, A. & Dassen, T. (2003). Care dependency: Testing the German version of the Care Dependency Scale in nursing homes and on geriatric wards. *Scandinavian Journal of Caring Sciences*, 17(1), 51–56.
- Lovering, S. (2008). *Arab Muslim nurses' experiences of the meaning of caring*. (Thesis for Doctor of Health Science). University of Sydney, Sydney, NSW.
- Lu, H., Barriball, K., Zhang, X. & While, A. (2012). Job satisfaction among hospital nurses revisited: A systematic review. *International Journal of Nursing Studies*, 49(8), 1017–1038.

- Lu, J. L. (2013). Organizational role stress indices affecting burnout among nurses. *Journal of International Women's Studies*, 9(3), 63-78.
- Luna, L. (1998). Culturally competent health care: A challenge for nurses in Saudi Arabia. *Journal of Transcultural Nursing*, 9(2), 8-14.
- Ma, J. C., Lee, P. H., Yang, Y. C. & Chang, W. Y. (2009). Predicting factors related to nurses' intention to leave, job satisfaction, and perception of quality of care in acute care hospitals. *Nursing Economics*, 27(3), 178-184.
- Mael, F. & Ashforth, B. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13(2), 103-123.
- Mahran, S. & Al-Nagshabandi, E. (2012). Impact of perceived public image on turnover intention of female students from joining to nursing profession at King Abdul-Aziz University, Kingdom Saudi Arabia. *Journal of Nursing and Health Science*, 1(1), 19-28.
- Mäkikangas, A., Hättinen, M., Kinnunen, U. & Pekkonen, M. (2011). Longitudinal factorial invariance of the Maslach Burnout Inventory-General Survey among employees with job-related psychological health problems. *Stress and Health*, 27(4), 347-352.
- Mannelly, P. (2008). *Managing highly engaged or actively disengaged employees: A phenomenological study of first-level supervisors*. (Doctoral dissertation). School of Organizational Behavior, University of Phoenix, Phoenix, NV.
- Martin, T. (1979). A contextual model of employee turnover intentions. *Academy of Management Journal*, 22(2), 313-324.
- Maslach, C. (1978). Job burnout: How people cope. *Public Welfare*, 36(2), 56-58.
- Maslach, C. & Jackson, S. (1981). *MBI: The Maslach Burnout Inventory: Manual*. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C. & Jackson, S. (1984). Burnout in organizational settings. *Applied Social Psychology Annual*, 5, 133-153.
- Maslach, C., Jackson, S. & Leiter, M. (1996). *MBI: The Maslach Burnout Inventory: Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

- Maslach, C. & Leiter, M. (2005). Reversing burnout: How to rekindle your passion for your work. *Stanford Social Innovation Review*. Accessed 4 December 2013 from [http://www.ssireviews.org/pdf/2005WI\\_Feature\\_Maslach\\_Leiter.pdf](http://www.ssireviews.org/pdf/2005WI_Feature_Maslach_Leiter.pdf)
- Maslach, C., Schaufeli, W. & Leiter, M. (2001). Job burnout. *Annual Review of Psychology*, 52, 397–422.
- Maslow, A. (1954). A theory of human motivation. *Psychological Review*, 50(4), 370–396.
- McCarthy, G., Tyrell, M. & Lehane, E. (2007). Intention to ‘leave’ or ‘stay’ in nursing. *Journal of Nursing Management*, 15(3), 248–255.
- McGlynn, K., Griffin, M., Donahue, M. & Fitzpatrick, J. (2012). Registered nurse job satisfaction and satisfaction with the professional practice model. *Journal of Nursing Management*, 20(2), 260–265.
- Mehdizadeh, N. (2011). Gender and reconciliation of work and family in Iran. *International Labour Review*, 150(3–4), 405–417.
- Meyer, J. & Allen, N. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1(1), 61–89.
- Meyer, J., Allen, N. & Smith, C. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78(4), 538–551.
- Miller-Rosser, K., Chapman, Y. & Francis, K. (2006). Historical, cultural, and contemporary influences on the status of women in nursing in Saudi Arabia. *Online Journal of Issues in Nursing*, 11(3). Accessed 4 June 2013 from <http://gm6.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume112006/No3Sept06/ArticlePreviousTopics/WomeninNursinginSaudiArabia.html>
- Milutinović, D., Golubović, B., Brkić, N. & Prokeš, B. (2012). Professional stress and health among critical care nurses in Serbia. *Archives of Industrial Hygiene and Toxicology*, 63(2), 171–180.
- Ministry of Economy and Planning. (2012). *Achievements of the development plans: Facts and figures* (29th ed.). Accessed 11 December 2013 from <http://www.mep.gov.sa/themes/GoldenCarpet/index.jsp>

- Ministry of Health. (2011). *Health statistical year book*. Riyadh, KSA: Author.
- Ministry of Health. (2013). *Key indicators/About the Ministry*. Accessed 11 December 2013 from <http://www.moh.gov.sa/>
- Ministry of Higher Education. (2013). *University statistics*. Accessed 2 December 2013 from <http://www.mohe.gov.sa/en/studyinside/universitiesStatistics/Pages/faculties.aspx>
- Mitchell, J. (2009). *Job satisfaction and burnout among foreign-trained nurses in Saudi Arabia: A mixed method study*. Ann Arbor, MI: ProQuest Publishing.
- Mobley, W. (1977). Intermediate linkages in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology*, 62(2), 237–240.
- Montana, P. & Charnov, B. (2008). *Management* (4th ed.). Hauppauge, NY: Barron's Educational Series.
- Moorman, R. (1993). The influence of cognitive and affective based job satisfaction measures on the relationship between satisfaction and organizational citizenship behavior. *Human Relations*, 46(6), 759–776.
- Moote, M., Nelson, R., Veltkamp, R. & Campbell, D. (2012). Productivity assessment of physician assistants and nurse practitioners in oncology in an academic medical center. *Journal of Oncology Practice*, 8(3), 167–172.
- Muchinsky, P. & Morrow, P. (1980). A multidisciplinary model of voluntary employee turnover. *Journal of Vocational Behavior*, 17(3), 263–290.
- Mueller, C. & McCloskey, J. (1990). Nurses' job satisfaction: A proposed measure. *Nursing Research*, 39(2), 113–116.
- Murray, G. (2012, 30 July–3 August). A personal experience of how the Arab culture and islam impacts upon the concept of professional caring as a nurse in Saudi Arabia. Paper presented at the *23rd International Nursing Research Congress*, Brisbane, Qld.
- Myers, M. (2000). Qualitative research and the generalizability question: Standing firm with Proteus. *The Qualitative Report*, 4(3/4), 1–9.
- Nahrgang, J., Morgeson, F. & Hofmann, D. (2011). Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *Journal of Applied Psychology*, 96(1), 71–94.



- Nayeri, N. & Negarandeh, R. (2009). Conflict among Iranian hospital nurses: A qualitative study. *Human Resources for Health*, 7(25). Accessed 11 August 2013 from <http://www.human-resources-health.com/content/7/1/25>
- Netemeyer, R., Boles, J. & McMurrin, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology*, 81(4), 400–410.
- Newton, S., Pillay, J. & Higginbottom, G. (2012). The migration and transitioning experiences of internationally educated nurses: A global perspective. *Journal of Nursing Management*, 20(4), 534–550.
- Niblock, T. (2008). Saudi Arabia’s economic development: Ambitious visions, difficult dilemmas. *Journal of Middle Eastern and Islamic Studies*, 2(2), 14–31.
- Nitzsche, A., Pfaff, H., Jung, J. & Driller, E. (2013). Work–life balance culture, work–home interaction, and emotional exhaustion: A structural equation modeling approach. *Journal of Occupational and Environmental Medicine*, 55(1), 67–73.
- O’Mahony, N. (2011). Nurse burnout and the working environment. *Emergency nurse: The Journal of the RCN Accident and Emergency Nursing Association*, 19(5), 30–37.
- Penney, L. & Spector, P. (2005). Job stress, incivility, and counterproductive work behavior (CWB): The moderating role of negative affectivity. *Journal of Organizational Behavior*, 26(7), 777–796.
- Peter, R., Siegrist, J., Hallqvist, J., Reuterwall, C. & Theorell, T. (2002). Psychosocial work environment and myocardial infarction: Improving risk estimation by combining two complementary job stress models in the SHEEP Study. *Journal of Epidemiology and Community Health*, 56(4), 294–300.
- Petty, M., McGee, G. & Cavender, J. (1984). A meta-analysis of the relationships between individual job satisfaction and individual performance. *Academy of Management Review*, 9(4), 712–721.
- Pines, A. M. (2005). The burnout measure, short version. *International Journal of Stress Management*, 12(1), 78–88.
- Pines, A. M. & Aronson, E. (1988). *Career burnout: Causes and cures*. New York, NY: Free Press.

- Pisanti, R., Lombardo, C., Lucidi, F., Violani, C. & Lazzari, D. (2013). Psychometric properties of the Maslach Burnout Inventory for Human Services among Italian nurses: A test of alternative models. *Journal of Advanced Nursing*, 69(3), 697–707.
- Poghosyan, L., Aiken, L. & Sloane, D. (2009). Factor structure of the Maslach Burnout Inventory: An analysis of data from large scale cross-sectional surveys of nurses from eight countries. *International Journal of Nursing Studies*, 46(7), 894–902.
- Polit, D. & Beck, C. (2006). The content validity index: Are you sure you know what's being reported? Critique and recommendations. *Research in Nursing and Health*, 29(5), 489–497.
- Polit, D. & Beck, C. (2013). *Essentials of nursing research: Appraising evidence for nursing practice* (8th ed.). Philadelphia, PA: Walters Kluwer Health/Lippincott.
- Porter, L. & Steers, R. (1973). Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, 80(2), 151–176.
- Porter, L., Steers, R., Mowday, R. & Boulian, P. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603–609.
- Prince Abdulaziz bin Mousaed Economic City. (2009). *Overview*. Accessed 2 September 2013 from <http://www.pabm-ec.com/hail.php>
- Professional Connections. (2013). *Global healthcare recruitment, Saudi Arabia*. Accessed 7 September 2013 from <http://www.nursinginsaudi.net/nursing-in-saudi-arabia-faqs-57.html>
- Purani, K. & Sahadev, S. (2008). The moderating role of industrial experience in the job satisfaction, intention to leave relationship: An empirical study among salesmen in India. *Journal of Business & Industrial Marketing*, 23(7), 475–485.
- Price, J. (1977). *The study of turnover*. Ames, IA: Iowa State University Press.
- Price, J. & Mueller, C. (1981). A causal model of turnover for nurses. *Academy of Management Journal*, 24(3), 543–565.
- Probst, H., Griffiths, S., Adams, R. & Hill, C. (2012). Burnout in therapy radiographers in the UK. *British Journal of Radiology*, 85(1017), e760–e765.

- Quine, L. (1999). Workplace bullying in NHS community trust: Staff questionnaire survey. *British Medical Journal*, 318(7178), 228–232.
- Raddaha, A., Alasad, J., Albikawi, Z., Batarseh, K., Realat, E., Saleh, A. & Froelicher, E. (2012). Jordanian nurses' job satisfaction and intention to quit. *Leadership in Health Services*, 25(3), 216–231.
- Ramady, M. (2010). *The Saudi Arabian economy*. New York, NY: Springer.
- Ramady, M. (2013). Gulf unemployment and government policies: Prospects for the Saudi labour quota or Nitaqat system. *International Journal of Economics and Business Research*, 5(4), 476–498.
- Ramirez, A., Graham, J., Richards, M., Gregory, W. & Cull, A. (1996). Mental health of hospital consultants: The effects of stress and satisfaction at work. *The Lancet*, 347(9003), 724–728.
- Rasooldeen, M. (2013, 7 February). Private sector a vital partner, says Al-Rabeeah. *Arab News*. Accessed 6 September 2013 from <http://www.arabnews.com/saudi-arabia/private-sector-vital-partner-says-al-rabeeah>
- Reid, C., Courtney, M., Anderson, D. & Hurst, C. (2013). Testing the psychometric properties of the Brisbane Practice Environment Measure using exploratory factor analysis and confirmatory factor analysis in an Australian registered nurse population. *International Journal of Nursing Practice*. doi:10.1111/ijn.12225
- Reuben, D. & Tinetti, M. (2012). Goal-oriented patient care An alternative health outcomes paradigm. *New England Journal of Medicine*, 366(9), 777–779.
- Rietveld, T. & van Hout, R. (1993). *Statistical techniques for the study of language and language behavior*. Berlin, Germany: Mouton de Gruyter.
- Riyadh Bureau. (2013). *Saudi female nurses on strike to protest serving male patients*. Accessed 6 September 2013 from <http://riyadhbureau.com/blog/2013/5/nurses-on-strike>
- Robson, C. (2011). *Real world research: A resource for users of social research methods in applied settings*. Chichester, England: Wiley (Open Universities Publishing).

- Rout, U., Cooper, C. & Rout, J. (1996). Job stress among British general practitioners: Predictors of job dissatisfaction and mental ill-health. *Stress Medicine*, 12(3), 155–166.
- Royal College of Nursing, United Kingdom. (2010). *Guidance on safe nursing levels in UK*. London, England: Author.
- Royal Embassy of Saudi Arabia. (2013). *Country information*. Accessed 2 September 2013 from <http://www.saudiembassy.net/about/>
- Saban, K., Hogan, T., DeFrino, D., Evans, C., Bauer, E., Pape, T., . . . Smith, B. (2013). Burnout and coping strategies of polytrauma team members caring for veterans with traumatic brain injury. *Brain Injury*, 27(3), 301–309.
- Saijo, Y., Chiba, S., Yoshioka, E., Kawanishi, Y., Nakagi, Y., Ito, T., . . . Yoshida, T. (2013). Job stress and burnout among urban and rural hospital physicians in Japan. *Australian Journal of Rural Health*, 21(4), 225–231.
- Saleh, A. M., Saleh, M. M. & AbuRuz, M. E. (2013). The impact of stress on job satisfaction for nurses in King Fahad Specialist Hospital-Dammam-KSA. *Journal of American Science*, 9(3), 371–377.
- Sandström, B., Borglin, G., Nilsson, R. & Willman, A. (2011). Promoting the implementation of evidence-based practice: A literature review focusing on the role of nursing leadership. *Worldviews on Evidence-Based Nursing*, 8(4), 212–223.
- Saudi Aramco. (2013). *Healthcare*. Accessed 7 September 2013 from <http://www.jobsataramco.eu/about-us/our-business-sectors/healthcare>
- Saudi Gazette. (2013a, 27 March). *Saudi health forum to address nursing profession for Saudis*. Accessed 10 December 2013 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20130327158617>
- Saudi Gazette. (2013b, 27 October). *Kingdom healthcare sector to attract more foreign investors*. Accessed 12 December 2013 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20131028184933>
- Saudi Gazette. (2013c, 24 November). *Labor Ministry asked to allow worker lending*. Accessed 1 December 2013 from

<http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20131124187581>

- Saudi Gazette. (2013c, 8 April). *Female nurses call for increased protection*. Accessed 7 September 2013 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20130408160436>
- Saudi Gazette (2013, 2 December). *Saudisation rate in nursing sector crosses 30 percent*. Accessed 16 January 2014 from <http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=20131203188445>
- Sawatzky, J. & Enns, C. (2012). Exploring the key predictors of retention in emergency nurses. *Journal of Nursing Management*, 20(5), 696–707.
- Schaufeli, W. & Bakker, A. (2003). *Utrecht work engagement scale: Preliminary manual*. Occupational Health Psychology Unit, Utrecht University. Accessed 21 September 2013 from [http://www.beanmanaged.com/doc/pdf/arnoldbakker/articles/articles\\_arnold\\_bakker\\_87.pdf](http://www.beanmanaged.com/doc/pdf/arnoldbakker/articles/articles_arnold_bakker_87.pdf)
- Schaufeli, W., Bakker, A. & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *Journal of Organizational Behavior*, 30(7), 893–917.
- Schaufeli, W., Leiter, M. & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, 14(3), 204–220.
- Schutte, N., Toppinen, S., Kalimo, R. & Schaufeli, W. (2000). The factorial validity of the Maslach Burnout Inventory–General Survey (MBI–GS) across occupational groups and nations. *Journal of Occupational and Organizational Psychology*, 73(1), 53–66.
- Sehlen, S., Vordermark, D., Schafer, C., Herschbach, P., Bayer, A., Pigorsch, S., . . . Geinitz, H. (2009). Job stress and job satisfaction of physicians, radiographers, nurses and physicists working in radiotherapy: A multicenter analysis by the DEGRO Quality of Life Work Group. *Radiation Oncology*, 4(6), 1–9.
- Semmer, N. (2006). Job stress interventions and the organization of work. *Scandinavian Journal of Work, Environment & Health*, 32(6), 515–527.

- Sergiovanni, T. (1967). Factors which affect satisfaction and dissatisfaction of teachers. *Journal of Educational Administration*, 5(1), 66-82.
- Sharac, J., McCrone, P., Sabes-Figuera, R., Csipke, E., Wood, A. & Wykes, T. (2010). Nurse and patient activities and interaction on psychiatric inpatients wards: A literature review. *International Journal of Nursing Studies*, 47(7), 909–917.
- Shirom, A. (2003). Job-related burnout. In J. Quick & L. Tetrick (Eds.), *Handbook of occupational health psychology* (pp. 245–265). Washington, DC: American Psychological Association.
- Shirom, A. & Melamed, S. (2006). A comparison of the construct validity of two burnout measures in two groups of professionals. *International Journal of Stress Management*, 13(2), 176–200.
- Simon, M., Müller, B. & Hasselhorn, H. (2010). Leaving the organization or the profession A multilevel analysis of nurses' intentions. *Journal of Advanced Nursing*, 66(3), 616–626.
- Simpson, M. (2009). Engagement at work: A review of the literature. *International Journal of Nursing Studies*, 46(7), 1012–1024.
- Sousa, V., Driessnack, M. & Mendes, I. (2007). An overview of research designs relevant to nursing: Qualitative designs. *Latin-American Journal of Nursing*, 15(4), 684–688.
- Speziale, H., Streubert, H. & Carpenter, D. (2011). *Qualitative research in nursing: Advancing the humanistic imperative*. Philadelphia, PA: Wolters Kluwer Health.
- Spector, P. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA: Sage.
- Spence Laschinger, H., Wilk, P., Cho, J. & Greco, P. (2009). Empowerment, engagement and perceived effectiveness in nursing work environments: Does experience matter? *Journal of Nursing Management*, 17(5), 637–646.
- Spielberger, C. & Reheiser, E. (1995). Measuring occupational stress: The job stress survey. In R. Crandall & P. Perrewé (Eds.), *Occupational stress: A handbook. Series in health psychology and behavioral medicine* (pp. 51–69). Philadelphia, PA: Taylor & Francis.

- Stark, M., Hoekstra, T., Hazel, D. & Barton, B. (2012). Caring for self and others: Increasing health care students' healthy behaviors. *Work: A Journal of Prevention, Assessment and Rehabilitation*, 42(3), 393–401.
- Stone, P., Larson, E., Mooney-Kane, C., Smolowitz, J., Lin, S. X. & Dick, A. (2006). Organizational climate and intensive care unit nurses' intention to leave. *Critical Care Medicine*, 34(7), 1907–1912.
- Su, X., Yan, X. & Tsai, C.-L. (2012). Linear regression. *WIREs Computational Statistics*, 4(3), 275–294.
- Suliman, W. & Tadros, A. (2011). Nursing students coping with English as a foreign language medium of instruction. *Nurse Education Today*, 31(4), 402–407.
- Tabachnick, B. & Fidell, L. (2007). *Using multivariate statistics* (5th ed.). Harlow, England: Pearson Education.
- Takase, M., Maude, P. & Manias, E. (2005). Nurses' job dissatisfaction and turnover intention: Methodological myths and an alternative approach. *Nursing & Health Sciences*, 7(3), 209–217.
- Takase, M., Maude, P. & Manias, E. (2006). The impact of role discrepancy on nurses' intention to quit their jobs. *Journal of Clinical Nursing*, 15(9), 1071–1080.
- Tappen, R. (2011). *Advanced nursing research: From theory to practice*. Sudbury, MA: Jones & Bartlett Learning.
- Toh, S., Ang, E. & Devi, M. (2012). Systematic review on the relationship between the nursing shortage and job satisfaction, stress and burnout levels among nurses in oncology/haematology settings. *International Journal of Evidence-based Healthcare*, 10(2), 126–141.
- Tella, A., Ayeni, C. & Popoola, S. (2007). *Work motivation, job satisfaction, and organisational commitment of library personnel in academic and research libraries in Oyo State, Nigeria*. Retrieved 12 August 2013 from <http://www.webpages.uidaho.edu/~mbolin/tella2.htm>
- Tharenou, P. & Caulfield, N. (2010). Will I stay or will I go? Explaining repatriation by self-initiated expatriates. *Academy of Management Journal*, 53(5), 1009–1028.

- Thompson, P., Benton, D., Adams, E., Morin, K., Barry, J., Prevost, S., . . . Oywer, E. (2013). The global summit on nurse faculty migration. *Nursing Outlook*. Accessed 19 October 2013 from <http://www.sciencedirect.com/science/article/pii/S0029655413001048>
- Timm, N. (2002). *Applied multivariate analysis*. New York, NY: Springer.
- Toumi, H. (2013, 30 November). Saudi women's rights activist caught driving. *Gulf News*. Accessed 2 December 2013 from <http://gulfnews.com/news/gulf/saudi-arabia/saudi-women-s-rights-activist-caught-driving-1.1261548>
- Tsouloupas, C., Carson, R., Matthews, R., Grawitch, M. & Barber, L. (2010). Exploring the association between teachers' perceived student misbehaviour and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, 30(2), 173–189.
- Tsutsumi, A., Kayaba, K., Theorell, T. & Siegrist, J. (2001). Association between job stress and depression among Japanese employees threatened by job loss in a comparison between two complementary job-stress models. *Scandinavian Journal of Work, Environment & Health*, 27(2), 146–153.
- Tumulty, G. (2008). Professional development of nursing in Saudi Arabia. *Journal of Nursing Scholarship*, 33(3), 285–290.
- Tumulty, G. (2001). Professional development of nursing in Saudi Arabia. *Journal of Nursing Scholarship*, 33(3), 285–290.
- United States–Saudi Business Council. (2013). *Ninth five-year plan includes \$385 billion in new spending*. Accessed 4 September 2013 from <http://www.us-sabc.org/custom/news/details.cfm?id=775#.UiaK6Up--os>
- University of Ha'il. (2013). *College of public health information*. Accessed 2 December 2013 from <http://www.uoh.edu.sa/sites/En/Colleges/Public-health/Pages/Mission-Vision.aspx>
- Unruh, L. & Nooney, J. (2011). Newly licensed registered nurses' perceptions of job difficulties, demands and control: Individual and organizational predictors. *Journal of Nursing Management*, 19(5), 572–584.
- Valentine, M., Nembhard, I. & Edmondson, A. (2011). *Measuring teamwork in health care settings: A review of survey instruments*. Boston, MA: Harvard Business School.



- Van der Doef, M., Mbazzi, F. & Verhoeven, C. (2012). Job conditions, job satisfaction, somatic complaints and burnout among East African nurses. *Journal of Clinical Nursing*, 21(11–12), 1763–1775.
- Van der Heijden, B., Kümmerling, A., van Dam, K., van der Schoot, E., Estry-Béhar, M. & Hasselhorn, H. (2010). The impact of social support upon intention to leave among female nurses in Europe: Secondary analysis of data from the NEXT survey. *International Journal of Nursing Studies*, 47(4), 434–445.
- Vanheule, S., Rosseel, Y. & Vlerick, P. (2007). The factorial validity and measurement invariance of the Maslach Burnout Inventory for human services. *Stress and Health*, 23(2), 87–91.
- Van Veldhoven, M. & Meijman, T. (1994). *The measurement of psychosocial strain at work: The questionnaire experience and evaluation of work*. Amsterdam, Netherlands: European Agency for Safety and Health at Work.
- Vicentic, S., Gasic, M., Milovanovic, A., Tosevski, D., Nenadovic, M., Damjanovic, A., . . . Jovanovic, A. (2013). Burnout, quality of life and emotional profile in general practitioners and psychiatrists. *Work: A Journal of Prevention, Assessment and Rehabilitation*, 45(1), 129–138.
- Walker, A. & Campbell, K. (2013). Work readiness of graduate nurses and the impact on job satisfaction, work engagement and intention to remain, *Nurse Education Today*. Accessed from <http://dx.doi.org/10.1016/j.nedt.2013.05.008>
- Wang, L., Tao, H., Ellenbecker, C. & Liu, X. (2012). Job satisfaction, occupational commitment and intent to stay among Chinese nurses: A cross-sectional questionnaire survey. *Journal of Advanced Nursing*, 68(3), 539–549.
- Wanous, J., Reichers, A. & Hudy, M. (1997). Overall job satisfaction: How good are single-item measures? *Journal of Applied Psychology*, 82(2), 247–252.
- Ward, J., Cody, J., Schaal, M. & Hojat, M. (2012). The empathy enigma: An empirical study of decline in empathy among undergraduate nursing students. *Journal of Professional Nursing*, 28(1), 34–40.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs and affective experiences. *Human Resource Management Review*, 12(2), 173–194.

- Williams, A. (2003). *Job stress, job satisfaction, and intent to leave employment among maternal-child health nurses*. (Master's thesis). Marshall University, Huntington, WV.
- Williams, B. & Brown, T. (2013). A confirmatory factor analysis of the self-directed learning readiness scale. *Nursing & Health Sciences*, 15(4), 430–436.
- Williams, B., Brown, T. & Onsman, A. (2010). Exploratory factor analysis: A five-step guide for novices. *Australasian Journal of Paramedicine*, 8(3), 1–14.
- Williams, B., McKenna, L., French, J. & Dousek, S. (2013). The clinical teaching preference questionnaire (CTPQ): An exploratory factor analysis. *Nurse Education Today*, 33(8), 814–817.
- Williams, L. & Anderson, S. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17(3), 601–617.
- Williams, S. & Cooper, C. (1997). Occupational stress indicator. In C. Zalaquett & R. Wood (Eds.), *Evaluating stress: A book of resources* (pp. 251–276). Lanham, MD: Scarecrow Education.
- World Factbook. (2013). *Saudi Arabia*. Accessed 2 September 2013 from <https://www.cia.gov/library/publications/the-world-factbook/geos/sa.html>
- World Health Organization. (2006). *Country cooperation strategy for WHO and Saudi Arabia (2006–2011)*. Accessed 5 October 2013 from [http://www.who.int/countryfocus/cooperation\\_strategy/ccs\\_sau\\_en.pdf](http://www.who.int/countryfocus/cooperation_strategy/ccs_sau_en.pdf)
- World Health Organization. (2010). *Global code of practice on the international recruitment of health personnel*. Accessed 8 September 2013 from [http://apps.who.int/gb/ebwha/pdf\\_files/WHA63/A63\\_R16-en.pdf](http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R16-en.pdf)
- World Health Organization. (2011). *Civil registration and vital statistics systems in the MENA region*. Accessed 27 May 2013 from <http://www.emro.who.int/countries/sau/>
- World Health Organization. (2013). *WHO nursing and midwifery progress report 2008–2012*. Geneva, Switzerland: Author.

- Xie, Z., Wang, A. & Chen, B. (2011). Nurse burnout and its association with occupational stress in a cross-sectional study in Shanghai. *Journal of Advanced Nursing*, 67(7), 1537–1546.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.
- Yoon, G. S. & Kim, S. Y. (2010). Influences of job stress and burnout on turnover intention of nurses. *Journal of Korean Academy of Nursing Administration*, 16(4), 507–516.
- Zaghloul, A., Al-Hussaini, M. & Al-Bassam, N. (2008). Intention to stay and nurses' satisfaction dimensions. *Journal of Multidisciplinary Healthcare*, 1(1), 51–58.
- Zakari, N., Al Khamis, N. & Hamadi, H. (2010). Conflict and professionalism: Perceptions among nurses in Saudi Arabia. *International Nursing Review*, 57(3), 297–304.
- Zeytinoglu, I., Denton, M. & Plenderleith, J. (2011). Flexible employment and nurses' intention to leave the profession: The role of support at work. *Health Policy*, 99(2), 149–157.
- Zurn, P., Dolea, C. & Stillwell, B. (2005). *Nurse retention and recruitment: Developing a motivated workforce*. Global Nursing Review Initiative, World Health Organisation. Accessed 12 August 2013 from [http://www.icn.ch/images/stories/documents/publications/GNRI/Issue4\\_Retention.pdf](http://www.icn.ch/images/stories/documents/publications/GNRI/Issue4_Retention.pdf)

## Appendix A



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Dear Salman Hamdan

**ABSEHAPP 05 – 11 ALSAQRI A survey of intention to leave, job satisfaction, job stress and burnout among nurses in the Hail region’s hospitals in Saudi Arabia**

Thank you for submitting your amended application for review.

I am pleased to inform you that the CHEAN has approved your application for a period of **33 Months** to **December 2013** and your research may now proceed.

The CHEAN would like to remind you that:

All data should be stored on University Network systems. These systems provide high levels of manageable security and data integrity, can provide secure remote access, are backed up on a regular basis and can provide Disaster Recover processes should a large scale incident occur. The use of portable devices such as CDs and memory sticks is valid for archiving; data transport where necessary and for some works in progress. The authoritative copy of all current data should reside on appropriate network systems; and the Principal Investigator is responsible for the retention and storage of the original data pertaining to the project for a minimum period of five years.

Annual reports are due during December for all research projects that have been approved by the College Human Ethics Advisory Network (CHEAN).

The necessary form can be found at: <http://www.rmit.edu.au/governance/committees/hrec>

Yours faithfully,

**Linda Jones**  
Acting Chair, Science Engineering & Health  
College Human Ethics Advisory Network ‘A’

Cc CHEAN Member: Amanda Kimpton School of Health Sciences  
Supervisor/s: Phillip Maude School of Health Sciences  
Lina Shawan-Akl School of Health Sciences

**RMIT University**

**Science Engineering  
and Health**

**College Human Ethics  
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## Appendix B



School of Health Sciences,  
Nursing and Midwifery

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Ph: +61 3 9925 7447  
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**Project Title: A survey of intention to leave, job satisfaction, job stress and burnout among nurses in the Ha'il region's hospitals in Saudi Arabia**

**Investigator:**

Salman Hamdan ALSAQRI (PhD Candidate- Nursing and Midwifery,  
School of Health Sciences, RMIT University, [s3260396@student.rmit.edu.au](mailto:s3260396@student.rmit.edu.au)

**Supervisors:**

- Associate Professor Phillip Maude, PhD, School of Health Sciences, RMIT University, [Phillip.Maude@rmit.edu.au](mailto:Phillip.Maude@rmit.edu.au) Phone: 99257447
- Associate Professor Lina Shahwan-Akl PhD, School of Health Sciences, RMIT University, [lina.shahwan-akl @rmit.edu.au](mailto:lina.shahwan-akl@rmit.edu.au) Phone: 99257443

**Dear participant,**

You are invited to participate in a research project being conducted as part of a PhD study at RMIT University, Melbourne Australia. This information sheet describes the project in straightforward language, or 'plain English'. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate or not. If you have any questions about the project, please contact the investigator.

**Who is involved in this research project? Why is it being conducted?**

This research is being conducted by Salman Hamdan Alsaqri as part of studies for the award of a PhD in the Discipline of Nursing and Midwifery, RMIT University. Nurses working in ward areas of Ha'il Region Hospitals are invited to participate. The inclusion criteria for the

selection of participants will be: all available nursing, nurse managers and nursing staff who are working in all clinical areas. Exclusion criteria Nurses who not willing to participate. Please note this study has approval of Saudi Arabia Ministry of Health and RMIT University Ethics.

**Why have you been approached?**

You have been invited to respond to a survey questionnaire in order to assist in understanding the factors that highly affect job satisfaction of Saudi Arabian nurses. Your participation in the survey is completely voluntary and would be greatly appreciated.

**What is the project about? What are the questions being addressed?**

The aim of the study is to examine and identify the factors that nurses perceive to be most important and effective to decrease turnover in medical surgical as well as specialty areas of nursing and increase retention rates in the Ministry of Health in Saudi Arabia. It is envisaged that around 954 Saudi registered nurses will be invited to participate by completing a questionnaire.

**If I agree to participate, what will I be required to do?**

After reviewing and understanding this plain language statement you will be asked to complete a survey, which will take around 20 minutes to complete. The survey requires you to provide anonymous demographic information and to complete a job stress, job satisfaction and burnout survey. The survey will imply your consent to participate. You will be requested to return the completed survey to a box labelled 'Job Satisfaction' that will be placed in the Nursing Department of your hospital.

**What are the risks or disadvantages associated with participation?**

There are no risks associated with your participation in this research project. All responses will remain confidential, be reported as group data and will have no influence on your employment.

**What are the benefits associated with participation?**

It is hoped that this research will provide further understanding of the factors and issues that influence nurses to work in ward areas of nursing. It will identify the most important factors that influence job satisfaction, which will assist in considering factors that assist with the retention of nurses in Saudi public hospitals.

### **What will happen to the information I provide?**

All information gathered as part of this research will be securely stored for a period of five years in the School of Health Sciences, RMIT University. The data can only be accessed by the researcher and supervisors. After five years, the data will be destroyed. The data collected will be analysed, and the results may be published in academic journals or conferences without including any personal information that has the potential to identify either you or your health agency.

### **What are my rights as a participant?**

Your participation in this research is voluntary. As a participant, you have the right to withdraw your participation at any time; have any unprocessed data withdrawn and destroyed, provided it can be reliably identified, and provided that so doing does not increase your risk; and have any questions answered at any time.

Due to the nature of this data collection process, I am not obtaining written informed consent. Consent is implied by you returning the questionnaire.

### **Whom should I contact if I have any questions?**

If you have any questions regarding this research, please contact the researcher [s3260396@student.rmit.edu.au](mailto:s3260396@student.rmit.edu.au) phone (AUS 0413078882) or his supervisors at the following addresses [Phillip.Maude@rmit.edu.au](mailto:Phillip.Maude@rmit.edu.au) and [Lina.Shahwan-Akl @rmit.edu.au](mailto:Lina.Shahwan-Akl@rmit.edu.au)

[You may also contact the following person in Saudi Arabia should you have any concerns about this research:](#)

Ministry of Health Saudi Arabia, Ha'il region,  
Talal Majed  
Email: [talal7990@hotmail.com](mailto:talal7990@hotmail.com)

Yours Sincerely  
Salman Hamdan Alsaqri PhD candidate  
[s3260396@student.rmit.edu.au](mailto:s3260396@student.rmit.edu.au)

<p>Any complaints about your participation in this project may be directed to the Executive Officer, RMIT Human Research Ethics Committee, Research &amp; Innovation, RMIT, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 2251. Details of the complaints procedure will also be available from this address.</p>
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## Appendix C

الرقم :  
التاريخ : ١٤ / / هـ  
المشروعات :



المملكة العربية السعودية  
وزارة الصحة  
المديرية العامة لشئون الصحية بمنطقة حائل

Dear Mr. Salman Hamdan Alsaqri

15 December 2010

It is my pleasure to inform you that we approved your study titled: Factors That Influence Turnover Intention among Nurses in the Hail Region's Hospitals in Saudi Arabia.

Please be informed that in conducting this study, you as Principle Investigator is required to abide by the rules and regulations of the Government of Saudi Arabia and Ministry of Health. The approval of this proposal will automatically be suspended 2 March 2012 pending the replication to renew the approval.

Please observe the following:

1. Personal indentifying data should only be collected when necessary for research;
2. The data collected should only be used for this proposal;
3. Data should be stored securely so that only a few authorised users are permitted access to the database;
4. Secondary discloser of personal indentified data is not allowed

An ethical approval from human ethics committee in RMIT Australia is required to begin collecting your data at Hail region hospitals. General Director of Health Affairs in Hail Region support this research project and look forward to receiving a copy of the final result and dissertation.

Should you have any inquires or concerns in relation to this approval do not hesitate to contact Mr. Talal Majed on +96665381077, or by email at talal7990@hotmail.com.

We wish you every success in your research endeavor.

Sincerely,

Dr. Nawaf Al Harthy  
General Director of Health Affairs  
Hail, KSA





## Appendix D

### Nursing Survey

#### Part 1: Demographic Characteristic

Please select one response or fill in the blank that best describes you as a registered nurse for each of the following questions.

1. What is your age?

2. Gender

1. Male  2. Female

3. Marital Status

1. Single  2. Married

4. What is your nationality?

1. Saudi  2. None Saudi (please specify)

5. Highest qualification in Nursing

1. Nursing Diploma  2. Bachelors  
 3. Master of Nursing  4. Doctorate in Nursing

#### Part 2: Work Profile Characteristics

Please select one response or fill in the blank that best describes you as a registered nurse for each of the following questions.

1. How long have you been a registered nurse (Years in Nursing)

2. How long have you been working in this hospital?

3. Check one primary area where you work.

1. Critical Care ICU  2. Critical care CCU  3. EMERGENCY  4. Medical  
 5. Surgical  6. Obstetrics  7. Pediatrics  8. Operating Room

9. Orthopedics       10. Administration (Supervisor, CNO)       11. Infection Control  
 12. Mental health       13. Burn                       13. Other (Please Specify)

4. Current Position

1. Staff Nurse     2. Head Nurse     3. Charge Nurse     4. Educator     5. Supervisors  
 6. Director

5. What shift do you work?

- 8 HOURS     12 HOURS

**Part 3: Job Stress**

Below is a list of situations that can commonly occur to you as a registered nurse in the working environment. For each situation you have encountered in your present work setting, please indicate how stressful it has been for you.

Please select one response for each question.

Never stressful    Occasionally stressful    Frequently stressful    Extremely stressful

- |  |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. Performing procedures that patients experience as painful.                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. Feeling inadequate prepared to help with the emotional needs of a patient's family.         | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. Lack of opportunity to talk openly with other personnel about problems in the work setting. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. Conflict with a colleagues.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. Inadequate information from a physician regarding the medical condition of a patient.       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. Patients members making unreasonable demands.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. Being sexually harassed.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. Feeling helpless in the case of a patient who fails to improve.                             | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. Being asked a question by a patient for which I do not have a satisfactory answer.          | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

10. Lack of opportunity to share experiences and feelings with other personnel in the work setting.
11. Unpredictable staffing and scheduling.
12. A physician ordering what appears to be inappropriate treatment for a patient.
13. Patients' families making unreasonable demands.
14. Experiencing discrimination because of race or my gender.
15. Listening or talking to a patient about his/her approaching death.
16. Fear of making a mistake in treating a patient.
17. Feeling inadequately prepared to help with the emotional needs of a patient.
18. Lack of an opportunity to express to the other personnel on the unit my negative feelings towards patients.
19. Difficulty in working with a particular nurse (or nurses)
20. Not enough time to provide emotional support to the patient.
21. A physician not being present in a medical emergency.
22. Being blamed for anything that goes wrong.
23. The death of a patient.
24. Disagreement concerning the treatment of a patient.
25. Feeling inadequately trained for what I have to do.
26. Lack of support from my immediate supervisor.
27. Criticism of my work.
28. Not enough time to complete all my nursing tasks.

29. Not knowing what a patient or patients' family ought to be told about the patient's condition and its treatment.
30. Being the one that has to deal Patients' families
31. Having to deal with abusive violent patients.
32. Being exposed to health and safety hazards.
33. The death of a patient with whom you developed a close relationship.
34. Making a decision concerning a patient when the physician is unavailable.
35. Being in charge with inadequate experience.
36. Lack of support by nursing administrators.
37. Too many non-nursing tasks required, such as clerical work.
38. Not enough staff to adequately cover the unit.
39. Uncertainty regarding the operation and functioning of specialized equipment.
40. Not enough time to respond to the needs of patients' families.
41. Being held accountable for things over which I have no control.
42. Physician(s) not being present when a patient dies.
43. Having to organize doctor's work.
44. Lack of support from other healthcare administrators.
45. Difficulty in working with nurses of the opposite sex.
46. Demands of patient classification system.
47. Watching a patient suffer.
48. Having to work through breaks.

- 
49. Having to make decisions under pressure.
- 

### Part 4: Burnout

This part of the survey is to discover how a nurse views their jobs and the people with whom they work closely.

Please select one response for each question.

Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Everyday
-------	----------------------------	----------------------	---------------------	-------------	--------------------	----------

1. Feel emotionally drained from my work.
2. I feel used up at the end of the workday.
3. I feel fatigued when I get up in the morning and have to face another day on the job.
4. I can easily understand how my patients feel about things.
5. I feel I treat some patients as if they were impersonal objects.
6. Working with people all day is really a strain for me.
7. I deal very effectively with the problems of my patients.
8. I feel burned out from my work.
9. I feel I'm positively influencing other people's lives through my work.
10. I've become more callous towards people since I took this job.
11. I worry that this job is hardening me emotionally.
12. I feel very energetic.
13. I feel frustrated by my job.
14. I feel I'm working too hard on my job.

15. I don't really care what happens to some patients.
16. Working with people directly puts too much stress on me.
17. I can easily create a relaxed atmosphere with my patients.
18. I feel exhilarated after working closely with my patients.
19. I have accomplished many worthwhile things in my job.
20. In my work, I deal with emotional problems very calmly.
21. I feel patients blame me for some of their problems.

### Part 5: Job Satisfaction

How much do you agree or disagree with each of the following statements about your job?  
 Please select one response for each question.

Strongly agree	Agree	Neither agree or nor disagree	Disagree	Strongly disagree
----------------	-------	-------------------------------	----------	-------------------

1. I find real enjoyment in my job.
2. I consider my job rather unpleasant.
3. I am often bored with my job.
4. I am fairly well satisfied with my job.
5. I definitely dislike my job.
6. Each day on my job seems like it will never end.
7. Most days I am enthusiastic about my job.

### Part 6: Intention to Leave

How much do you agree or disagree with each of the following statements about your present job as a registered nurse within your hospital setting.

Please select one response for each question.

Strongly agree	Agree	Neither agree or nor disagree	Disagree	Strongly disagree
----------------	-------	-------------------------------	----------	-------------------

1. I plan to leave my hospital as soon as possible.

2. I plan to stay in my hospital as long as possible.

# West East Institute

P.O. Box 19383 West Chester, PA, USA  
Phone: (321)541-3814 - [www.westeastinstitute.com](http://www.westeastinstitute.com) - E-mail: [staff@westeastinstitute.com](mailto:staff@westeastinstitute.com)  
Conference Chair: Dr. F. Alexander Magill

28<sup>th</sup> April 2012

Salman Alsaqri, PhD Candidate  
Health Science College, RMIT University  
[Ksa\\_77@yahoo.com](mailto:Ksa_77@yahoo.com)

Reference: ZG12-129

Dear Alsaqri,

The West East Institute is pleased to inform you that your paper " A survey of intention to leave among nurses in the hail region's hospitals in Saudi Arabia: the role of job satisfaction, job stress and burnout." has been selected for oral presentation at the *WEI International European Academic Conference* in Zagreb 2012.

The conference will be held in the Dubrovnik Hotel d.d in Zagreb, Croatia from October 14 through October 17, 2012. All accepted papers/abstracts are double-blind peer reviewed and participation in the conference includes publication of your complete manuscript in the journal of the conference proceedings.

Congratulations on your successful research efforts, and thank you for considering the 2012 Zagreb International European Conference as your research outlet.

Please use your reference number listed above in all future correspondence.

We look forward to seeing you at the WEI Conference in Zagreb 2012.

Thank you,



Dr. Alexander Magill  
Conference Chair