

**The Effects of a Burnout Prevention Programme on Mental Health Nurses in the
Kingdom of Saudi Arabia (KSA)**

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LIST OF ABBREVIATIONS

KSA	Kingdom Of Saudi Arabia
MOH	Ministry Of Health
SNMHS	Saudi National Mental Health Survey
EE	Emotional Exhaustion
DP	Depersonalization
PA	Personal Accomplishment
SSS	Social Support Scale
MBI	Maslach Burnout Inventory
MHPSS	Mental Health Professional Stress Scale
MCSS	Manchester Clinical Supervision Scale
MJSS	Minnesota Job Satisfaction Scale
PWESQ	Psychosocial Work Environment And Stress Questionnaire
PES-NWI	Practice Environment Scale- Nurse Work Index
BM	Burnout Measure
COR	Conservation Of Resources
MBSR	Mindfulness-Based Stress Reduction
CINAHL	Cumulative Index To Nursing And Allied Health Literature
MeSH	Medical Subject Headings
CASP	Critical Appraisal Skills Program
RCTs	Randomized Controlled Trials
GHQ	General Health Questionnaire
CSE	Core Self-Evaluation
PSI	Psychosocial Intervention
CBI	Cognitive Behavioural Interventions
CLT	Central Limit Theorem
CBI	Copenhagen Burnout Inventory
SMBQ	Shirom-Melamed Burnout Questionnaire
PUMA	Project On Burnout, Motivation, And Job Satisfaction
SCHS	Saudi Commission For Health Specialties
SPSS	Statistical Package For Social Sciences

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Abstract

Burnout is a common problem among mental health professionals, particularly mental health nurses. High levels of burnout result in job dissatisfaction, rapid turnover of staff, physical and psychological discomfort, and reduction in the quality of patient care. While there is an abundance of research relating to burnout per se, there is a lack of research regarding burnout among mental health nurses in Saudi Arabia, and more specifically of the impact a burnout prevention programme might have on those experiencing high levels of work related stress. In starting to address this gap, the aim of this study was to identify the level of burnout, predictors of burnout, and measure the effects of a burnout prevention programme on mental health nurses working in Saudi Arabia.

A quasi-experimental design was used to test the effectiveness of a two-day burnout prevention workshop offered to mental health nurses working in Saudi Arabia. The sample was drawn from the Al-Amal Complex for Mental Health at two sites; Riyadh and Ara'r, the former providing the intervention group, the latter the control group. The workshop consisted of providing information about burnout, as well as strategies to decrease stress. A demographic questionnaire, as well as the Maslach Burnout Inventory (MBI), was used to collect data immediately before conducting the workshop and at one, three and six month intervals after participants had completed the workshop.

Data were analysed using the latest version of SPSS. Means, standard deviations, frequencies and percentages were used to describe the sample and levels of burnout experienced by the nurses. A t-test, ANOVA, Multiple linear regression and chi squared were used to measure the effect of the workshop before and at three intervals after the nurses were exposed to the burnout prevention programme. Findings indicate the burnout prevention programme was effective with a significant reduction being reported one month after the intervention. However, although not returning to baseline scores, an increase in the burnout score was again observed after 6 months, indicating a need to continue with the programme at reasonable intervals. However, the overall efficacy of the burnout reduction programme is evident within this study as there was a significant reduction in burnout among mental health nurses working in Saudi Arabia.

Importance and Relevance

This research was carried out to address burnout levels by introducing a burnout prevention programme and measuring the effects of such on mental health nurses working in Saudi Arabia. Additionally, predictive factors of burnout for this target group were also identified. This is the first of study within Saudi Arabia.

CHAPTER ONE: INTRODUCTION

Introduction

This chapter provides an overview of the thesis. The eight chapters presented in this thesis will provide the reader with (1) an overview of the context for this study; (2) the history of burnout, definitions and background (3) a review of the literature pertinent to stress and burnout within a mental health arena; (4) a review of the literature specifically pertinent to burnout prevention programmes (5) the chosen methodology and a description of the way in which the research was carried out; (6) a presentation of the findings; (7) a discussion of the findings within the context of the wider literature; and (8) the concluding chapter which encompasses the strengths and limitations of the study, its implications for practice and recommendations. Furthermore, details of the literature review and documents pertaining to ethical approval are also provided as appendices.

Overview of Saudi Arabia

The Kingdom of Saudi Arabia (KSA) is located on the continent of Asia in what is referred to as The Middle East. The country is surrounded by various bodies of water and countries, the Red Sea being situated to the West, while the Arabic Gulf is to the North-East of the Kingdom. Saudi Arabia also shares its borders with the countries of Iraq and Kuwait to the north; Qatar and the United Arab Emirates to the East, and Jordan to the West (Mufti, 2000) (See Figure 1). Saudi Arabia is the largest country within the geographical definition of the Arabic Peninsula, as it covers an approximate area of 23,149,690 km². The city of Riyadh is the capital of the country and largest single city within Saudi Arabia. It was established in its modern form in 1902 by Abdul Al-Aziz Abd al-Rahman Al Saud, however, for 30 years following the actual establishment of the country, he struggled to create unity within the Arabian Peninsula, as the modern state had been formed from a variety of diverse tribes (Al-Rasheed, 2012). In 2014, the total population was estimated to be 30.77 million with an annual population growth of 2.1%, and population density of 15.3%, (<http://www.stats.gov.sa/en/indicators>, 2016).

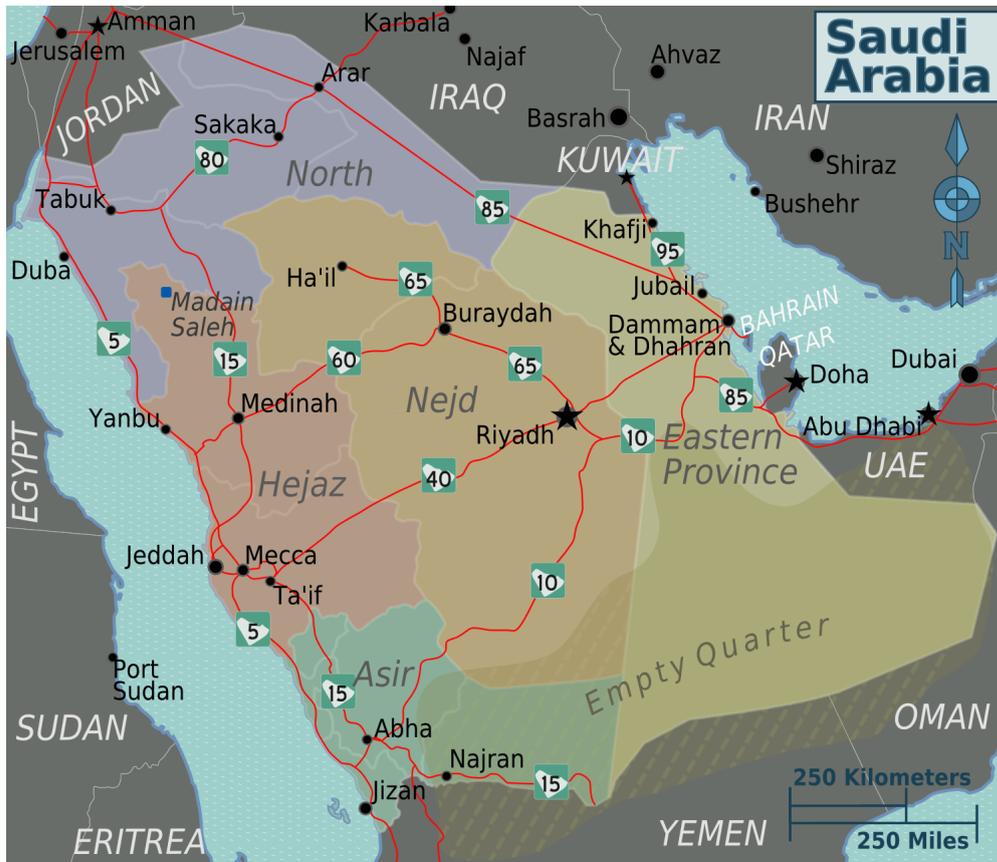


Figure 1. The location of Saudi Arabia and its regions (World Atlas, 2016).

Approximately 30% of the population resident in KSA are not national citizens of Saudi Arabia (Central Department of Statistics and Information, 2004), and around two-thirds of these expatriates work as professionals in mental health care settings (WHO, 2007). The total expenditure spent on the provision and maintenance of health care in relation to the gross domestic product [GDP] comes to 3.4%, whilst the total amount that is spent on health care is 8.7% in regard to all general expenditure (WHO, 2007).

Culture of Saudi Arabia

In Saudi Arabia, Islam is a social system that deals with the comprehensive views of each and every aspect of life. It covers so many things so it is more than a religious ideology. Nonetheless, native Saudi Arabia citizens have different opinions, elucidation and approach towards Islam. The strength with which men and women of the social subdivisions obey the conventional regulatory system and fulfil the entire congenital spiritual concept differs immensely. The socio-cultural diversity that reflects the Saudi population consist of; ethnic and non-ethnic, city-occupants, villagers and Bedouin communities, literate and illiterate, contemporary and traditional people.

The kingdom has incurred a lot of wealth and resources due to huge oil income. Nonetheless, despite the advantages, the wealth has also created a lot of complications. For example, the Saudis are putting effort into upholding their cultural and spiritual heritage, whilst at the same time they are well aware of all the advantages that are incurred when part of an affluent society. Being a Saudi citizen, I am well aware of the social, economic and political matters that are prevailing in our society, which involves the contradiction between ethnic and non-ethnic assemblies and between traditionalists and modernizers. These groups are now exploring a common ground and dealing with extremely critical matters; for instance, women's rights for education due to the progress made in providing educational and economic opportunities. This implies that the level of adherence to religious values, interpretation and implementation is different in every group and varies accordingly.

Social context

Even though financial support and wealth has arrived into the country, this prosperity has brought with it many issues of its own. Regardless of the fact that the Saudis adhere to their culture and religious values, they also aspire to materialize the benefits of the flow the wealth could possibly bring. I personally believe that this arrangement of traditional and modern values along with the tribal and non-tribal groups has always majorly affected the social, political and financial dilemmas of the country. For example, in order to control or manage women's attitude and minimize their attendance in the society, gender segregation is used as a cultural technique (Parssinen, 1980). Moreover, Dodd (1973) suggests that there is a common belief among Saudi Muslims and Arabs that women can bring potential dishonour to their family. Thus, these people use traditional parameters to define the limit of the segregation and veiling. Thus, the participation of women outside the walls of their home is limited so that the traditions, rules and cultural values are shielded and they can prevail with ease. However, regardless of these references being in excess of 40 years old, the status quo remains demonstrating how difficult it is to change tradition.

Likewise, Saudis regard family as the vital social institution, giving a sense of reputation and identity. When families have communal lifestyles and interests, they form relationships among themselves. Every family member is subjected to spend his life with a corporate identity and similar socially prescribed rules of dignity, satisfaction and respect. According to Long (2003), Saudi Arabia is ruled by a patriarchal social structure whereby those of senior age and men have more power and influence than women. The role of women in

Saudi society is largely seen as that of housewife; while, men are considered the safe guards, and the dwelling is based on traditional extended family customs in the society. The extended family members are subject to gather on frequent basis if they do not dwell nearby, and there is a particular welfare accountability and cooperative responsibility of every member in the family. Another significant element in Arab culture is that when family members need support and aid so they ask it from the eldest family member earlier than the government premises, such as hospitals (Long, 2003).

Health Care System in Saudi Arabia

During the last few decades, the Saudi health care system has developed quantitatively and qualitatively, with a “relatively high level of care made available to virtually all segments of the population” (Gallagher, 2002, 181). Over 80% of health services are government funded, and free for citizens and public sector workers (Mufti, 2000). There are 1,986 healthcare centers, with a referral system offering specialist services through 231 general and specialist hospitals (Saudi Ministry of Health, 2007).

The health system that has been developed in Saudi Arabia, has established a variety of different services through various governmental and private institutions providing many different important specialties (Mutfi, 2000). The main governmental agency to work within this structure in Saudi Arabia is the Ministry of Health (MOH), which takes the role of designing and implementing different health care policies that continually require updating and improving.

In addition to this function, the MOH has also developed an online referral system that is used in all 231 general and specialist hospitals within the KSA (MOH, 2008). The establishment of the MOH occurred in 1954 (Tumulty, 2001). In the years that followed there were further developments within the KSA that led to a major boom in oil production and export revenue. This helped to create a base for financial support to fund a consecutive five-year national development plan (Aarts & Nonneman, 2005). This led to major expansion and development within the health care sector, one such development being the implementation of further education and training protocols in order for those living in local regions to have the opportunity to become skilled professionals (Saati, 2000).

Governmental developments that were implemented in Saudi Arabia were multi-dimensional, and included the promotion of scholarships, the introduction of medical

colleges, and the establishment of the Saudi Council for Health Specialty (Al-rabeeah, 2003). Moreover, a major focus was the advanced development of physicians and other professionals within health care (Al-rabeeah, 2003). By the turn of the century, Saudi Arabia was ranked 26th in the WHO's measurement of healthcare system performance and came before many other international health care systems such as Canada (ranked 30), Australia (32), New Zealand (41), and other systems in the region such as the United Arab Emirates (27), Qatar (44) and Kuwait (45) (WHO, 2000).

National Programme for Mental Health

In 2005 mental health facilities became an integral part of the basic healthcare system. It was made possible via extensive training of the present healthcare providers, forming a bridge between the mental health services, general health care services and the educational institutions. A whole mechanism of collaboration was introduced, for example professional experts in mental health offering guidance and training to other medical workers. Citizens of SA were provided with basic mental healthcare services both in hospitals and psychiatric primary healthcare centres. According to the World Health Organization (2005), cooperation with the departments outside of the health sector, non-governmental institutions, religious organizations and heads of local groups was established for the designing and practical implementation of the health programmes and initiatives.

Mental Health Care Services in Saudi Arabia

Mental health care systems have been developed in Saudi Arabia in modern times through three main stages. The first stage started prior to 1983, when there was only one active form of mental health service, called 'Taif Hospital'; this being the overall provider of mental health services for all Saudi Arabian residents experiencing mental illness. Subsequently, the second stage began following 1983 with the establishment of smaller-sized hospitals and outpatient clinics around the country, which totaled 120. In 1995 the third stage saw the incorporation of primary care settings providing care to those experiencing mental health problems (WHO, 2001; Al-Habeeb & Qureshi, 2010).

Alongside the stages identified above, in 1989 the Saudi Arabian National Programme for Mental Health was launched (WHO, 2005), the main purpose of which was to provide a much needed focus on mental health services to ensure all the members of the community could access such expertise. The goal of the Saudi Arabian National Programme for Mental Health was to design mental healthcare that would be in keeping with the religious,

cultural and social values of the country, whilst providing appropriate skills, techniques and methods that would address psychological and social dilemmas. According to the World Health Organization (2005), the Saudi Arabian National Programme for Mental Health would also aim to reduce the affect of the negative by-products of economic and social developments including; smoking, crime and drug abuse.

Nowadays, it has been shown that the total amount of psychiatric hospitals within the KSA has actually increased, with 21 mental health hospitals now established. These hospitals, which are referred to as “Al-Amal” hospitals are located in the cities of Jeddah, Riyadh, and Dammam, and all have specialist addiction services within their facilities. There are now an additional four facilities that offer a further 50-beds, known as the ‘Al-Qaseem Psychiatric Rehabilitation Centre’, situated in the city of Buraidah. These facilities also provide treatment for addiction. It is obvious from the developments reported here the Government of the KSA is concerned with the level of addiction in the country. Furthermore, many psychiatric hospitals, maternity, and children’s hospitals now have child and adolescent psychiatric clinics. In total there are close to 3,000 psychiatric beds (12 per 100,000 population) in the country (Qureshi et al., 2013).

Even though public hospitals are the most common provision for psychiatric care in Saudi Arabia, there are also advanced private services that function in regards to mental health care services in the country, although the patients are charged for any consultation or treatment, which is in contrast to the state-funded public system of health care that is generally available to all citizens. Altogether, the total amount of private general hospitals and clinics in Saudi Arabia is now in excess of 125, with the majority of them also having private psychiatric clinics connected to their establishments (Ministry of Health, 2010). However, due to the social stigma of being diagnosed with mental illness, as well as challenges that occur when attempting to access these services, most people who are able to fund their treatment frequently prefer to use a private clinic, which means that the state does not contribute to the fee. Yet, it must be stated that private clinics throughout the nation offer good quality psychotherapy, together with pharmacology, addiction services, speech therapy, and rehabilitation services, all being available across the life span (Harold, 2014).

Table 1. below, shows the summary of characteristics of mental health facilities and system (MHS) in the KSA.

Table 1.Characteristics of mental health facilities in the KSA

Items	Remarks
Mental health expenditure	4% of total health budget
Expenditure for mental hospitals	22% on mental health hospitals
Beds in mental hospitals	12 beds/100,000 distribution: mental hospitals (90%), community facilities (10%)
Patients treated in mental health facilities (per 100,000 population)	Mental hospitals (40%) and 50% in outpatient facilities, 10% in other facilities
Female users treated in mental health facilities	Mental hospitals (46%), outpatient facilities (50%), and 4% other facilities
Diagnosis (inpatient versus outpatient)	Mood disorders (35% vs 20%), schizophrenia (13% vs 50%), neurotic disorders (36% vs 1%), drug abuse (9% vs 20%)
Length of stay in inpatient facilities	Mental hospitals, 45 days; community residential facilities, 30–60 days
PHC staff undertaking 2-day training in mental health in the last year	PHC doctors 60%, PHC nurses 65%
Total human resources in mental health setting	22/100,000 population: nurses, 13/100,000 psychiatrists, 2/100,000
Average number of staff per bed	In mental hospitals: nurses, 0.39; psycho/sw, 0.21; psychiatrists, 0.09
Professionals who have graduated in mental health/100,000	Nurses, 1.8; psychiatrists, 0.4; psychologists, 0.19; social workers, 0.95
Mental health training of special staff	Up to 20% of police officers, and even a few judges and lawyers, have participated in mental health educational activities

(Qureshi et al., 2013)

The Mental Health Workforce in Saudi Arabia

The systems that are set in place for mental health care in Saudi Arabia have focused on attempting to increase the number of professionals who are correctly qualified to provide appropriate treatment. The total number of psychologists, psychiatric nurses and psychiatric social workers has increased over recent years (Saudi National Mental Health Survey (SNMHS), 2010). In total, there are more than 700 psychiatrists working in the country, equating to three per 100,000 people, this includes 380 working in outpatient psychiatry, and 263 working in hospitals settings (Qureshi et al., 2013). It is suggested 515 psychologists, social workers and occupational therapists are based in outpatient facilities, and 611 are employed in mental hospitals. Likewise, 1,980 nurses are working in outpatient facilities and a further 1,176 work in in-patient settings (Qureshi et al., 2013).

Most nurses in Saudi Arabia take the Saudi Arabia Commission for Health Specialties exam in order to specialize in mental health nursing; however, nursing technicians (e.g., novice nurses, diploma holders, undergraduates passing the exam) may also sit the exam to become mental health nurses (WHO, 2006). It is also worth noting that certified nursing technicians provide hands-on routine care to patients in psychiatric hospitals and they are supervised by register nurses. Furthermore, in relation to the specific mental health training, there are many medical faculties in most universities around the country. These faculties are producing graduates to work in the profession, with more than 270 health professionals qualifying every year. While the ratio of nurses to patients is 36 nurses per 10,000 population, there are no specific statistics for nurse/population ratio for mental health (AlYami & Watson 2014). Nurses who want to enroll at undergraduate level need to achieve an average of 70% in the high school exams, and they also need to go through a personal interview before they are accepted on to the programme.

According to Homayan et al (2013), Saudi nurses represent a total of 31% of the total number of nurses in all health care sectors in Saudi Arabia (a total of 41,256 nurses in total including Saudi and non-Saudi nurses). Female Saudi nurses represent 48.8% (n = 5,052) and non Saudi female nurses 51.17% (n=5295). Male Saudi nurses represent 97.1% (n = 5,196) and non Saudi male nurses 02.86% (n=153) among all nurses in health care centres. While in hospitals, female Saudi nurses represent 29.8% (n = 13,355) non Saudi female nurses 70.19% (n=31452), and male Saudi nurses represent 87.57% (n = 12,952), with non Saudi male nurses 12.43% (n=1839) among all nurses.

Mental Illnesses in Saudi Arabia

To date, there is no population-based, epidemiological survey of psychiatric disorders for Saudi Arabia (Al-Osaimi, et al., 2014). Most information regarding the prevalence of mental illnesses is from regional studies or specific populations (Koenig et al., 2014). However, the Saudi National Mental Health Survey (SNMHS) was released in March 2017; the data was collected mainly by interview (N=4005) from the 5 regions within the KSA: Central region – Riyadh and Gassim, Western region – Jeddah, Makkah and Madinah, Eastern province, Southern region – Asir and Baha, and North region – Al Jouf, Northern border Tabouk and Hail. The results of this survey only identified mental illnesses relating to depression and anxiety. The results are shown in Table 2 below.

Table 2. Prevalence of Depression and Generalised Anxiety Disorder in the SNMHS by gender

	Female Prevalence Rate %	Male Prevalence Rate %
Major Depressive Episode	15.5%	8.5%
Major Depressive Disorder	11.4%	4%
Minor Depressive Episode	2.5%	2.1%
Generalised Anxiety Disorder	3.3%	1.3%

(SNMHS, 2017)

The above indicates a lifetime prevalence rate for depression and/or generalized anxiety disorder of 45.84% in the KSA.

This information provides a structural base for additional research to take place, which will help delineate the prevalence of a range of disorders as well as the development of a programme of prevention for some mental illnesses. Below are some earlier studies showing the prevalence of certain mental illnesses before the 2017 report was released.

In 1995, the magnitude of primary care psychiatric morbidity in the Arabic Gulf was estimated to be between 30-46%, similar to that of Western Countries (Al-Faris & Al-Hamad, 1995). Research conducted in 2013 using a sample of long-stay patients in Taifⁱ mental hospital, showed rates for schizophrenia being higher than for other disorders (Al-

Zahrani et al., 2013). This retrospective cohort study explored the prevalence of different mental illnesses and the length of stay in hospital for those experiencing them (Al-Zahrani et al., 2013). The medical records of 430 patients who had been admitted to the hospital over a period of 10 years (1999-2009) and who had stayed in the hospital for a duration of more than nine months were reviewed. Findings suggest that prevalence rates of mental illnesses within the cohort were: 88.8% for those suffering from schizophrenia, 17.7% for those presenting with an intellectual disability, 3.7% for individuals diagnosed with personality disorders and 1.9% for people who suffered from epilepsy. Moreover, it was also found that people who had been diagnosed with schizophrenia and a level of intellectual disability, those who presented with a lower educational level than deemed normal, and those who had a history of co-morbid chronic disease, would all stay in the hospital for a duration of more than two years.

A study undertaken by Al-Shehri et al. (2012) explored the prevalence of depression and anxiety among males attending ten primary health care centres in the areas of Dammam and Al-Qatif, within the region of Eastern Saudi Arabia. The researchers randomly selected ten different primary health care centres, resulting in the recruitment of a total of 822 adult males. The findings of the study showed the prevalence of depression to be 32.8%, (22.9% for mild, 7.4% for moderate, 2.1% that showed moderate to severe depression and 0.5% severe depression). With regard to anxiety, the overall prevalence was 22.3% of the sample population (17.0% for mild, 4.3% for moderate and 1.0% severe anxiety) (Al-Shehri et al., 2012).

Furthermore, the findings showed different predictors of depression; for instance, when a person was single and/or there was a distinct presence of psychological problems, depression was seen to be more common. However, prior psychological problems were not determined to be predictors of anxiety, although there was evidence that being single was a predictor of anxiety (Al-Shehri et al., 2012). As a result of the study, the researchers came to the conclusion that the overall prevalence of both depression and anxiety was relatively high among males attending primary health clinics in comparison to the general population, and in light of this screening for mental illnesses during physicians' routine activities should be considered a vital necessity in further prevention of illness.

In addition, a study conducted by Al-khathami et al. (2013) in the same geographical area as Al-Shehri et al. (2012), explored the outcomes of follow-up appointments of people who were seeking help within the primary health care setting. This again was a retrospective

study examining the records of 3,548 people attending the primary health facilities between 2000 and 2013. Study findings demonstrate anxiety to have the highest prevalence at 30.2%, which was followed by depression at 23.3%, and finally those who suffered from psychosis was 6.5% (Al-khathami et al., 2013). In addition, it was found that the prevalence of mental illness among patients who attended the primary mental health care facilities was markedly higher among women when compared to men (53.2% more women than men). It is interesting to note that the highest rates of mental illness among males were for those who were aged below 18 years of age, 43.2% of the total, and for females, it was those aged between 30 to 50 years old, 34.5%. Furthermore, the results indicated mental illness was found to be most prevalent among people who were single and who had only achieved a maximum of primary level education. While findings from each of the above studies indicate a difference regarding the prevalence rates of depression and anxiety, this could be due to the increased numbers included in Al-khathami et al. (2013) and/or the way data was collected.

In a cross sectional study carried out in three large primary care centers in the city of Riyadh, Al-Qadhi et al. (2014) conducted a structured investigation for the purposes of estimating the prevalence of diagnosed depression and its associated costs. Data was collected from a total of 477 patients, who attended one of three primary settings, which were all run by the King Abdul Aziz Medical City - National Guard, situated in the city of Riyadh. Findings showed the prevalence of depressive symptoms was 49.9% of all those attending primary care, with 31% showing mild; 13.4% moderate; 4.4% moderate to severe; and only 1.0% severe depression (Al-Qadhi et al., 2014). Furthermore, it was found females who had a high level of education were less likely to have depressive symptoms in comparison to their peers. In addition, it was calculated that screening for depression would ultimately save approximately \$133 on an annual basis for every adult who was screened.

Al-Sughayr and Ferwana conducted research in 2012, the purpose of which was to detect and evaluate the prevalence of various mental disorders among high school students. A general health questionnaire was used to collect data from 354 students who were selected by a systematic random sampling process from four high schools in the National Guard Housing in Kashmalaanⁱⁱ, which is situated in the city of Riyadh. The results indicate a prevalence rate of students suffering from mental disorders of 48% (41% of which were male and 51% female). The severity of psychiatric disorder was shown to be mild in 52% of the overall cases; 30% were seen to present as having a moderate disorder, whilst a total

of 18% were shown to have severe psychiatric disorders. Moreover, higher rates of mental disorders were found within the female participants, as well as among individuals who had only received a lower level of education.

Mental Health and the Law

The Saudi Arabian Mental Health Act has still not been ascribed to law (Al-Habeeb & Qureshi, 2010). The lack of mental health law, has left the relationship between health providers and patients being dictated by the Sharia, that is Islamic law (Okasha & Karam, 1998). It was designed under the light of suggestions from the United Nations, WHO and many other legislations from other countries. The Mental Health Act document also took account of the human rights of the mentally ill people.

According to Okasha (2008, p. 91), this Act would be “*assigned to a deranged adults, stuporosed persons or a child in Islam.*” Moreover, the family is responsible for the well-being and care of a mentally ill person according to Islam (Okasha, 2008). The family decides the care that person will receive, whether it is professional help or not. Hence, in an Arab society, family is the one who makes decision regarding their treatment and consent to such, having autonomy over everything.

Saudi Health Beliefs Regarding Mental Illness

Mental health disorders have become a major health concern around the world, having affected populations in different countries, regardless of their religion, culture, economy and social background (Baumeister & Martin, 2007). In total, it has been estimated that more than 450 million people throughout the world are suffering from at least one specific mental disorder (Mathers et al., 2006). Likewise, in Saudi Arabia, mental illness has become a common issue (Al-Homayan et al, 2013).

It has been estimated that around one third of all primary care patients who live in the central part of Saudi Arabia have been found to suffer from some form of mental illness (Al-Khathami & Ogbeide, 2002). However, this is not deemed to be due to levels of poverty as Saudi Arabia is considered to be a rich and diverse nation, with people working and residing from all different parts of the globe. Whilst the expatriates constitute approximately 30% of the entire population of Saudi Arabia (Sambridge, 2010), three major cultural influences remain the same as in the past, stemming from the country’s Islamic values, heritage and Bedouin traditions.

Within the country of Saudi Arabia, it has been asserted above that tangible improvement in the delivery of mental health care services have occurred, benefitting those who have presented with psychiatric symptoms, although these are required to be continually advanced in order to improve the patients' quality of life (Qureshi et al., 2013). Nevertheless, regardless of improvements in the system for mental health care in Saudi Arabia, a lot of the actual care that takes place continues to occur within the family setting. Children do not leave the surroundings of their home environment until they are married, while the elderly members are normally cared for by other family members, which results in large extended families living together with illness being contained within the family unit. This is particularly evident in respect of mental illness which is often treated by extended family members, reinforcing that such problems are secret and should not be made public (Harold et al, 2014). A major reason for this occurring within Saudi Arabia stems from the fact that providing care within families is perceived to be a religious obligation.

Within Saudi Arabian society, as in the majority of societies around the world, those individuals who suffer from diagnosed mental disorders are commonly stigmatised by society, whilst their families also receive secondary social stigma that can result in feelings of rejection and isolation (Qureshi et al., 2013). This is due to the fact that disorders of a psychological nature continue to be associated with the presence of evil spirits, or the consequential effects of magic or a deserved punishment from God for some perpetrated immoral act (Pridmore & Pasha, 2004). Moreover, mental illnesses are often associated with violence, addiction and the possibility of suicide (Pridmore & Pasha, 2004).

Guilt and shame are often integral to stigma and as they are real factors that need to be taken into consideration. Family members in Saudi Arabia normally refuse to have any form of discussion outside of the family unit in relation to a relative's mental health problems, and this can be detrimental to those seeking appropriate mental health care (Farooqi, 2006). Additionally, Islam states that particular special blessings are placed upon those individuals and the families who take care of those who are suffering from any form of sickness, and this includes both physical and mental disorders. Similarly, Islamic medicine and medical practice, which is based on teachings from the Qur'an and Hadithsⁱⁱⁱ, states that those people who pray both in the early morning and at sunset are consequently protected from different evil spirits. In holding these two Islamic beliefs it is understandable why Muslims believe they hold a specific duty to care for those people

around them who are suffering from sickness. As a consequence, Islamic families that reside in Saudi Arabia usually make a distinct effort to continually pray and take care of those who are sick. However, these traditional Islamic values may possibly be diminishing, particularly as western medicine has begun to grow in popularity in recent years.

Saudi Arabia is an Islamic country, and Islam has always imparted a personal sense of responsibility in regards to an individual's health, as this is seen to be a direct gift from God. It is believed that dedicated preservation, together with perpetual high levels of respect, are required to execute this responsibility. It was stated by Steven Dubovsky, an American psychiatrist, that Islam holds a greatly important role in Arab countries, and that the role of pre-Islamic Saudi culture has also played a distinctive role in the comprehension of psychiatric care and in compliance with the specific details of that (Dubovsky, 1983). Dubovsky detailed, through his perception of the concept of "*in'shallah*", which refers to 'God's will', the fact that the majority of people believe those who are suffering from an illness are in that situation due to the fact that God has willed it. Hence, this means that nothing can ultimately be done to alter the final course of illness, as it would go against God's will. According to Dubovsky (1983), "*a passivity that mimics helplessness and makes achieving a therapeutic alliance in which the patient is actively involved in his or her own care extremely difficult*" (p. 1456). However, it needs to be highlighted that Dubovsky's beliefs are highly questionable, as the overall cultural and religious perspectives that are common within the KSA do not necessarily lead to passivity. On the contrary, this basic health belief encourages people to seek the available modalities of health care as that can also be viewed as God's will.

Saudi Arabians believe that the act of prayer, together with the reading of the Holy Qur'an, (Muslims' holy book), is a major aspect that helps to benefit those suffering from mental disorders (Harold et al., 2014). What is more, most people generally believe that these factors are specific requirements in the advancement of a person's physical health, as well as for the development of treatment for medical problems (Harold et al., 2014). Indeed, prayer has been shown as a causal factor of recovery from illness (Pnevmatikos, 2014). Hence, the importance of health beliefs should be considered in the process of assessment for mental health, as well as for the treatment of illness and when planning for developing mental health services, rather than taking a western view of psychiatry that is predicated purely on symptoms without concern for the context of human experience.

Citizens of Saudi Arabia often hold the belief that symptoms occurring due to physical or mental illness are a result of supernatural forces, and thus, they commonly try to find additional assistance from different spiritual or traditional Islamic healers instead of registered medical physicians (Dubovsky, 1983). Such beliefs are still evident. A study conducted by Harakati et al., (2011) examining individual attitudes and beliefs held by hemodialysis patients found 98% believed God's will was the reason for their disease, with none suggesting it was due to problems of a medical or physical nature. Therefore, the findings of Harakati et al.'s (2011) study reiterates the idea of Saudi people believing illness is to do with the supernatural, in this instance "God's will", indicating people may take a passive role in their illness trajectory rather than being an active agent. The latter would enable people to seek appropriate help for their illness; however, this may become obstructed when cultural beliefs act as a barrier. In considering such barriers, professionals who provide mental health care need to be more aware of this, in-order for them to enable people who experience mental health problems to access the most appropriate help.

In terms of mental health, a study carried out by Wahass and Kent (1997) compared beliefs regarding auditory hallucinations by outpatients in Riyadh (KSA) and Sheffield (UK). Findings showed the following comparisons between Riyadh and Sheffield respectively; 9% vs 38% brain damage; 17% vs 2% curse or magic; 34% vs 5% featured Satanic or demonic voices; and feigning was suggested by 17% vs. 7%. In terms of best treatment options results showed; 4% vs 6%; no treatment, 66% vs. 11% religious assistance; 1% vs. 9% psychological approaches, 33% vs. 55% medication; and 5% vs. 22% combined medicine and therapy respectively.

In another study undertaken by Obeid (2012) a sample of 398 university graduates, who were made up of school teachers and undergraduate students from two specific universities in the city of Jeddah, were asked about the cause of epilepsy. Whilst 38% of the teachers and 47% of the students believed it to be a psychiatric illness, 40% of teachers and 50% of students believed it to be possession of Jinns. According to the Qu'ran, Jinns are creatures of God that are made of a smokeless and 'scorching fire', but are also physical in nature, being able to interact in a tactile manner with people and objects, they cannot be seen by humans and have superpower given by God. In regard to the potential available treatments for epilepsy, the readings of the Holy Qu'ran (*Ruqya*)^{iv} were shown to be considered a form of treatment by 68% of the teachers and 82% of the students (Obeid, 2012). Indeed, whilst this might be expected by those participants who believed that possessing Jinns was the main cause of epilepsy, this higher number of those who believed reading from the

Holy Qu'ran could produce a cure for epilepsy may well be indicative of the value put on prayer and spirituality. Overall, this could be considered surprising bearing in mind that the responses were all from individuals who were well-educated and relatively young.

Beliefs about the causes of mental illness may influence both patterns of help-seeking behaviour and outcomes of treatment. In a cross-sectional survey involving 266 adult relatives of mentally ill people who attend follow-up clinic at a Mental Health Hospital, in the city of Taif, Saudi Arabia, perceptions about mental illness, health services and available treatments were examined. Data was collected via face-to-face interviews using a semi-structured questionnaire (Elbur et al., 2013). Nearly half of the respondents believed that the 'evil eye' is a major cause of mental illness. The 'evil eye' has long been a topic of interest in Saudi society, and as a truth evidenced by "The Holy Quran". This finding can be attributed to the strong cultural belief of magic and the evil eye among Saudi people (Al-Awsat, 2007). In addition, Elbur et al. (2013) found a considerable number (47.4%) of interviewees attributed mental illness to personal weakness. Generally, the relatives who were interviewed had negative attitudes towards mentally ill patients and mental illnesses per se, and this appeared to correlate with magic being seen as the causation of mental illness (Elbur, et al., 2013). However, as a matter of interest, in contrast to folklore in Arabic culture, Islam fails to provide an explanation as to the occurrence of mental illnesses being a direct result of supernatural causes. Accordingly, there is at least one specific Muslim scholar, 'Ibn Sina', who was from the period prior to the modern age who rejected the notion that evil spirits could potentially cause mental illness in a person (Rahman, 1998).

The law that is set in place in Islamic culture protects those individuals who are afflicted with mental illnesses, and if their families are not capable of treating them correctly and looking after them, then a guardian is duly appointed in-order to protect the property of those who are suffering from the disorder. In fact, those individuals who are diagnosed as mentally ill, and particularly those people who are suffering from severe and persistent psychotic disorders, are not actually forced to practice many of the Islamic practices which are generally a requirement for all Muslims. For instance, those mentally ill individuals do not have to perform five daily prayers, which is the norm for Muslims, or perform the act of fasting during Ramadan (Dols, 2007).

In addition to Saudi cultural beliefs regarding mental illness impacting on help-seeking behaviour, a further problem is that the majority of those delivering mental health care are migrants, many of whom do not speak Arabic (Al-Subaie & Alhamad, 2000). It has been

suggested that this induces Saudi individuals with mental problems to seek treatment from traditional practitioners who share their identity and speak their language rather than accessing professional help (Al-Krenawi, 1999; Al-Subaie & Alhamad, 2000).

Overall, in-light of the cultural and religious influences upon the Saudi Arabian population, and particularly upon the indigenous population, effective mental health care must be predicated on understanding the context in which illness occurs and the requirement for care to be delivered in a manner that is respectful of both established sacred traditions and the common beliefs such traditions instill. For instance, considering and respecting these traditions and beliefs during assessment and treatment of psychiatric disorders would better facilitate developing a therapeutic relationship. However, delivering care that embeds cultural sensitivity may be an added stress to what might be perceived as an already stressful profession.

Burnout in Arab Countries

While stress, and in particular burnout, is discussed fully in the next chapter, it is appropriate to offer a brief overview of available evidence regarding burnout among nurses per se in Arab countries. A relatively small number of studies regarding burnout have been conducted in Gulf Arab countries. From those studies carried out, most demonstrated high levels of burnout amongst professionals in the nursing sector. Al-Doski & Aziz's (2010) study in Iraq highlighted dissatisfaction linked to job descriptions, while Moideenkutty et al.'s (2008) study in Oman cited burnout and exhaustion as potential factors contributing to the compromise of patient safety. A study conducted in Bahrain by Jahrami (2009) found low burnout levels amongst nurses. In contrast, Hamaideh's study (2011) showed high burnout levels amongst Jordanian nurses in mental health settings, being significantly linked to job dissatisfaction and poor social support. Other key factors affecting Jordanian nurses were the types and amount of work, as well as their chosen career path (Al-Ma'aitah et al., 1999; Armstrong-Stassen et al., 1994).

In Lebanon, two studies were conducted. In the first study by El-Jardali et al. (2011), nurses explained the link between their job role and psychological well-being, highlighting work related stress such as poor work environment and shortage of nurses due to high turnover, and high emotional and moral exhaustion being contributing factors to burnout. The second study by Sabbah et al. (2012) involving 200 nurses highlighted 77.5% were suffering from high emotional exhaustion (EE), while 36.0% reported high

depersonalization and 33.0% experienced a reduction in personal accomplishment based on Maslach Burnout Inventory (MBI). A study in Tunisia showed a strong link between burnout and depression and/or personal difficulties (Halayem Dhouib et al, 2010). Based on the studies above, it is clear that burnout exists among the nursing profession in Middle Eastern countries, but rates, levels, and factors cited attributable to it are discrepant from region to region, and in some instances, within countries. Nonetheless, the impact of burnout is undoubtedly a major issue which can lead to both short and long-term problems for the delivery of quality health care.

Burnout among Nurses in Saudi Arabia

In Saudi Arabia, burnout is still perceived as a curiosity. Until now, neither healthcare authorities nor healthcare professionals have given much attention to the assessment and prevention of burnout. This was evident in the literature review, which yielded only three studies on burnout in Saudi Arabia (AlSuliman & AlHablani 2014; Al-Turki et al., 2010; Sadat-Ali et al., 2005). The few available studies suggest that burnout is a common problem among healthcare professionals, particularly nurses and doctors (AlSuliman & AlHablani 2014). Sources of job stress that have been cited to contribute to burnout among nurses include organizational climate and structure, the job itself, achievement and family obligations, interpersonal relationships, and managerial roles such as being temporarily in-charge of the units. Managers are required to be attentive to these factors and introduce strategies that can help to minimize job-related stress and improve overall work outcome (AlSuliman & AlHablani 2014).

However, in addition to the above, more than 70% of the Saudi nursing workforce comes from foreign countries, and this is thought to be a source of stress in their professional work (Al-Turki et al., 2010). It was shown that in Saudi Arabia depersonalization and EE are commonly present among migrant nurses, and many do not record levels of personal accomplishment. Moreover, it was revealed that the fact of working in a foreign country and their age (34.46 years (SD 5.36) were the most important predictors of burnout developing in this group of nurses (Al-Turki et al., 2010). Al-Turki (2010) sought to evaluate the prevalence of burnout among nurses in King Fahd University Hospital, Al-Khobar, Saudi Arabia. This cross-sectional study revealed that Saudi nurses working in high activity areas, for example, in intensive care, had higher depersonalization and EE levels than nurses caring for patients in outpatient clinics and in the wards, with the majority also having low personal accomplishment.

AlSuliman and AlHablani (2014) conducted a study that determined burnout among military hospital nursing staff in Saudi Arabia, and the risk factors associated with it. Their study revealed that the overall prevalence of burnout in the target group was high (75.9%). The study also showed that inpatient nurses presented a greater risk of having burnout in comparison to those working in outpatient clinics. These findings further highlight the need to put in place burnout prevention interventions in this setting. In addition, Sadat-Ali et al. (2005) carried out one study in the Eastern province of Saudi Arabia in order to evaluate the importance of understanding the common factors of burnout experienced by orthopedic surgeons. Their study revealed burnout was common among these healthcare professionals. They recommended the need for increased awareness of the problem, as well as the need to introduce programs to reduce the prevalence of burnout in this population. Based on these findings, it is evident that most of the studies conducted in Saudi Arabia regarding burnout among healthcare providers have focused on determining the prevalence of burnout. However, strategies that can be used to reduce burnout among Saudi nurses in general, and Saudi psychiatric nurses in particular, have not been extensively investigated.

Summary

In light of the evidence above it appears that the number of people experiencing mental health problems in SA is rising. Due to cultural changes, the integration of expats and Saudi nationals, the move to adopt a model of western psychiatry and the growth and development of mental health services, careful consideration needs to be given to staff delivering care if the quality of that care is to remain high. Burnout has been identified as a common problem among healthcare professionals, particularly nurses and doctors, potentially impacting on the care received by patients. In the next chapter the concept of burnout will be discussed in terms of its relevance to nursing, and in particular mental health nursing

CHAPTER TWO: THE ORIGINS OF BURNOUT

History of Burnout Definitions

Burnout was defined by Freudenberger (1974) as a collection of unusual signs which are biological as well as psychosocial, and are produced while working due to an excessive demand of energy. Maslach and Pines (1977) defined burnout as laboral overtiredness of individuals working in various departments of community work, particularly those working in healthcare. Burnout is thought to be a severe reaction to a constant state of anxiety, the latter being most evident in the work situation. In addition, it can have an impact on professional as well as societal perspectives (Maslach & Pines, 1977).

Edelwich and Brodsky (1980) believed burnout to be a state of dissatisfaction or disappointment due to strenuous work, whereby during the initial stage, loss of passion and energy, along with impractical hopes can occur. Maslach and Jackson (1981) defined burnout as a psychological symptom of strain, recognising it as a tri-dimensional set of symptoms; depersonalization (DP) and emotional exhaustion (EE) in the work situation, and trouble in accomplishing or completing tasks, otherwise referred to as personal accomplishment (PA). Moreover, Perlman and Hartman (1982) defined burnout as a reaction to constant emotional strain due to three factors; mental and/or emotional tiredness, poor work efficiency, and high anxiety. Pines and Kanner (1982) considered burnout to be a constant state of mental tiredness due to extreme interactions with individuals during extended passages of time. Burke (1987) defined it as a procedure of labour stress that is defined by mental confusion along with a sense of self-condemnation due to failure at work, lack of involvement and a feeling of isolation.

Schaufeli and Enzmann (1998) went beyond the above definitions, acknowledging it as a constant emotional condition of mind, but articulating further components of burnout. These included unconstructive thoughts about work due to tiredness, less enthusiasm, reduced competitiveness and unproductive behaviour during work. In addition, Gil-Monte and Peiró (1999) considered it a state of constant strenuous reaction that causes a condition of mental exhaustion, leading to a growth of unconstructive actions and sentiments towards colleagues, resulting in a depreciation of one's status at work. Farber (2000) believed burnout to be a demonstration of the atmosphere in mainstream present work, as standards of recruitment are getting higher in-order to generate improved outcomes in less time and with less resources. Maslach et al. (2001) described it as an extended reaction to

continuous stressors on individuals on a relational scale, with identified constraints being tiredness, distrust, depersonalization, and ineffectiveness at work. Furthermore, Schaufeli and Buunk (2003) considered it a consequence of inconsistencies in expectations and roles, a bitter truth of regular work life. Lastly, Gil-Monte (2003) described burnout as a continuous distress reaction defined by the capacity of the individuals to unconstructively assess their capability to execute their tasks and connect with people they work for. Gil-Monte (2003) also believed this was due to mental tiredness as a result of negative thoughts, distrustful attitudes and approach to work, all facets that can contribute to the emotional destruction of the person.

Concepts and models of burnout

Despite multiple efforts over several years, social scientists are yet to agree on a standardized definition of burnout (Shukla & Trivedi, 2008). There appears to be four main obstacles to standardizing a definition, the first of which relates to there being a significant divergence on perceptions regarding how the phenomenon progresses (Burisch, 2006) since different researchers have their own independent perceptions of burnout (Zbryrad, 2009). Secondly, as the state of the mind progresses, it manifests itself in various symptoms, masking its progression and identification from the plethora of mental illnesses and related psychological issues commonly observed within individuals (Bakker et al., 2005). Hence, it is commonly perceived as a form of stress, depression or compassion fatigue. Thirdly, burnout is considered to be more of a process and therefore is not a specific event, with different individuals exhibiting various symptoms in response to their unique circumstances (Halbesleben & Buckley, 2004). Fourthly, there seems to be a dearth of empirical literature related to differentiating relational aspects in-regard to personal accomplishments versus the associated components of the phenomenon (Schaufeli, 2003). This is attributed to the complexity of burnout and how it is often mistakenly perceived as something else (Burisch, 2002).

Burnout was initially discussed in the 1970s in terms of reactions exhibited with regards to on-job interpersonal stress (Schaufeli et al., 2009). Terms relating to job, including professional and occupational burnout are often used interchangeably (Ahola, 2007). Freudenberger (1974) concluded that on-job burnout could refer to mental and physical exhaustion due to the monotony of one's professional responsibilities (Kraft, 2006). This is interpreted as being emotional exhaustion, a disassociation from fellow colleagues being reflected as a depersonalised state of mind, and/or a sense of reduced personal

accomplishments in relation to the job functions performed on a day to day basis (Halbesleben et al., 2008; Pines & Keinan, 2005). Thus, burnouts could be a psychological phenomenon due to prolonged exposure to a stressful environment requiring a high degree of attention beyond the capacity of the employee (Bakker & Demerouti, 2007).

Burnout has the potential to impact on nurses, patients, family members, colleagues and organisations. Bakker et al (2001) concluded that it is a contagious mental phenomenon which could impact on all members of a group. Kotzer et al. (2006) suggest the overt symptoms observed within nurses experiencing burnout include frustration, anger, depression, irritability, cynicism, bitterness, negativity and/or compulsivity. Taylor and Barling (2004) highlighted how symptoms associated with a decrease or increase in physical weight, breathing difficulties, self-criticism, exhaustion, doubt, gastrointestinal problems, negativity and irritability, helplessness and carelessness, cynicism, sleeping problems, frequent headaches, tiredness, feelings of being under siege and anger could also be associated with burnout.

Ladstatter and Gorrosa (2008) classified common symptoms of burnouts into five categories. The first category includes the affective symptoms, which are described as; low spirits, undefined fears and nervousness, a tearful and depressed mood, emotional exhaustion and decreased control over one's emotions. The second category relates to cognitive symptoms which include demonstrations of impotence, making frequent mistakes in everyday tasks such as in letters, files, notes, meetings or interviews, rigid thinking processes, a sense of failure and insufficiency, being forgetful, fear of losing one's mind, loss of concentration, feelings of powerlessness, hopelessness and helplessness. Thirdly, burnout manifests itself in physical symptoms such as nausea, sudden weight loss or gain, disturbances in sleep patterns, chronic fatigue, dizziness, headaches and sexual issues. Behavioural symptoms are the fourth category, commonly manifested in terms of exhibiting increased aggression and conflict at work and home, social isolation and withdrawal, perceptions of being unsatisfied with regards to individual performance and abilities and increased cigarette or alcohol consumption. The fifth category includes motivational symptoms which encompass a lack of motivation, reduced enthusiasm, interest and idealism, being consistently disillusioned, disappointed and a sense of resignation to one's fate. Maslach et al (2001) suggests that there would be reduced personal and professional effectiveness, poorer workplace performance and significant reductions in productivity levels. All of the above can be related to workplace burnout, and evidence of them were considered within this study.

Commonly, burnout is distinguishable from occupational stress, although the terms are often used interchangeably within multiple studies (McDonald-Fletcher, 2008; Rush, 2003). The former relates to chronic stress levels, which are beyond the individual's capacity to tolerate. This suggests stress could have certain positive implications, while burnout is entirely a negative phenomenon (Ahola et al., 2006; Sanders, 2001; Schaufeli, 2003). Burnout is not entirely related to stress and could often be attributed to unmediated stress, or being stressed, but unable to find a resolution to the crisis, an absence of buffers or effective support systems, and inadequate rewards against consistent inputs made (Hutman et al., 2005; Landeche, 2009). Stress could invigorate energy levels and instill a sense of urgency however, burnout always ends in feelings of hopelessness and helplessness (Espeland, 2006). Likewise, there is a close relationship between factors of occupational stress and burnout (Arkan et al., 2007; Hsu et al., 2010; Kennedy, 2005).

Compassion fatigue is similar to burnout, having many common characteristics, but being totally different concepts (Najjar et al., 2009; Yoder, 2010). Burnout arises when assertiveness-goal achievement intentions are not accomplished, while compassion fatigue evolves when rescue-caretaking strategies are unsuccessful (Valent, 2002). Burnout develops when the working environment is hostile (Alkema et al., 2008; Aycok & Boyle, 2009; Potter et al., 2010). There can be various types of disagreements with co-workers, dissatisfaction with salary, or bad working conditions. Compassion fatigue results from poor nurse-patient or nurse-family member of patient relationships, emotional commitment and/or interpersonal passion associated with experiences of bad working conditions (Potter et al, 2010; Sabo, 2008). Burnout generally progresses over a period of time, while compassion fatigue can develop quickly.

A nurse experiencing burnout will most likely be depersonalized slowly, while the nurse with compassion fatigue will work even harder and stronger to help people (Boyle, 2011). In her article, Boyle (2011) has attempted to systematically address nurses' reactions to profound loss and premature deaths associated with tragedy experienced by patients and significant others. The repeated exposures of nurses to these traumatic events in the clinical setting has lead Boyle to describe the concept of compassion fatigue by comparing the phenomenon from burnout experiences. Boyle distinguished compassion fatigue from burnout by three variables: triggers or etiology, chronology, and outcomes. The difference between compassion fatigue and burnout is dependent on nurse's perception about the cause of the stressful event, and his or her adaptation, including life-changing decisions.

Boyle stressed that compassionately fatigued nurses will continue to perform certain clinical tasks to help patients in need. Burnt out nurses, on the other hand, will most likely experience gradual depersonalization when exposed to work or environmental stresses, such as staffing workload. Although nurses experiencing the two phenomena have unique descriptions, both may experience empathy imbalance towards patients, and eventually may leave their position or transfer to another workplace setting. Furthermore, compassion fatigue and burnout can be respectively delineated using two survival strategies: rescue-caretaking and assertiveness-goal achievement. In his exemplar, Valent (2002) described these survival strategies as effective tools to neutralize traumatic experiences. He also pointed out that failure to activate these survival strategies may result in compassion fatigue and burnout among helpers or caregivers.

While phrases such as burnout, occupational stress and compassion fatigue are used interchangeably, the evidence presented above would suggest subtle differences, whereby burnout always has negative connotations leading to helplessness and hopelessness. Such subtle differences have compromised defining burnout as a concept and perhaps in doing so have prevented the development of an antidote and/or programme of intervention that might arrest the phenomenon of burnout. However, in an attempt to address the difficulties in defining burnout a number of people have developed models of burnout as a way of explaining what it is and how it impacts on individuals and organisations alike.

Pines' Burnout Model

The Pines' Burnout Model describes burnout as a "*condition of exhaustion (mental, physical and emotional) which is a consequence of being under highly stressful conditions*" (Pines & Aronson, 1988: 9). This context did not only apply to the nature of professional work, but also to working relationships, organisational intra-structures, marital relationships and the consequences of political disagreements (Shirom & Melamed, 2005). Burnout was referred to as a syndrome, having recurring symptoms, such as helplessness, hopelessness, entrapment, decreased enthusiasm, irritability, and a sense of lowered self-esteem (Shirom, 2010). The Pines' Burnout Measure (BM) is a one-dimensional evaluation resulting in a single composite burnout score (Schaufeli & Enzmann, 1998). The Pines Burnout Measure is also described as a scale of emotional stress resulting from physical fatigue, emotional exhaustion, depression, anxiety, and reduced self-esteem (Shirom & Ezrachi, 2003).

Shirom-Melamed Burnout Model (S-MBM)

Shirom's (2003) model of burnout has been created on the basis of Hobfoll's (1989) 'Conservation of Resources' (COR) theory. Burnout is viewed as an affective state characterized by feelings of depletion of one's physical, emotional and cognitive energies. The main factors of COR theory consist of that fact that every person has their own level of motivation that they can obtain, retain, and protect. These values are known as resources, which are initiated from multiple sources; material, social, and energy resources. Within COR theory, burnout is only associated with energy resources, these being physical, cognitive and emotional energies. Burnout is said to occur as the result of physical fatigue, emotional exhaustion, and cognitive weariness (Hobfoll & Shirom, 2000). Burnout in individuals is likely to occur if there is pressure at work, the environment they are in is hostile, or if they lose resources, or fail to regain resources following resource investment (Hobfoll, 2001). Individuals who lack a strong resource pool are more likely to have episodes of resource loss. Stress in this instance does not develop overnight, but is insidious, the result of being under stress for a long period of time. Burnout is most likely to occur when an individual is going through a number of episodes of resource loss in a limited span of time (Shirom & Ezrachi 2003).

Leiter's Model of Burnout

Leiter's model of burnout (1993) promotes an understanding of the concept of burnout and is predicated on the components of Maslach Burnout Inventory (MBI) (1981). Leiter (1993) related this model by using structural equation modelling, which lets you evaluate the significant contribution of different organizational measures while maintaining the three-factor structure of Maslach's Burnout Inventory (see chapter Five for details of this) and for researching the influence of one of the factors of burnout on the other factors (Burke & Richardson, 2001). Leiter's model is based on the premise that burnout can be stopped from progressing if the stressors causing emotional distress are targeted. Useful interventions in achieving this may include; adjusting the workload, reassigning tasks, creating methods to reduce interpersonal conflict, increased sense of competence by appropriate training, coping skills, increasing autonomy, and individual staff counselling and cognitive training to enhance effectiveness (Leiter, 1992).

Maslach Burnout Model

The difference in this model of burnout from the other models is that burnout is taken as a simultaneous evaluation of three distinguished dimensions; emotional stress, depersonalization and a loss of self-confidence (Wilkerson & Bellini, 2006). Emotional stress, or exhaustion, occurs when a person feels empty of one's feelings and is considered the most basic factor of this syndrome (Maslach et al, 2001). Depersonalization, or cynicism, is the aggressive or negative behaviour or the feeling of being unresponsive to anything related to work, and often occurs as a result of extreme stress or exhaustion (Maslach & Leiter, 2000). The reduced sense of self confidence or efficacy may be due to fewer accomplishments, low self-esteem, not being productive or lacking a goal (Leiter & Maslach, 2001).

The concept of burnout is documented as comprising of three distinct inter-related dimensions: firstly, emotional exhaustion (EE), characterised by a lack of enthusiasm and energy, as well as diminished emotional resources; secondly, depersonalisation (DP), which encompasses negative attitudes that are shown toward different clients, colleagues, and organisations as a whole; and thirdly, reduced personal accomplishment (PA), relating to workers' tendencies toward over critical self-evaluation, as well as levels of dissatisfaction that they have with regard to the performance of their work (Maslach & Jackson, 1981). Moreover, burnout has been described as "*physical, emotional, and psychological responses to work-related stress*" (Maslach et al., 1996, pp 4). The responses manifesting in a physical manner refer to low levels of energy, chronic fatigue, alongside overall weaknesses in the body. In contrast, emotional responses include depression, hopelessness and helplessness. Meanwhile, psychological responses include 'client' and/or 'co-worker' withdrawal.

Burnout and mental health nursing

Research has identified nursing as a highly stressful and demanding profession, with a number of studies reporting that most nurses experience high to very high job stress or strain (AbuAIRub, 2004; Moustaka, & Constantinidis, 2010). The consequences of stress have been recognized in jeopardizing the quality of nursing care and organizational outcomes. Moustaka & Constantinidis (2010) conducted a systematic review of 42 research studies to examine sources and consequences of occupational stress on nurses' adequacy, productivity and efficiency and found that occupational stress is mostly affected by the working

environment such as work overload, role ambiguity, role conflict and lack of power. The consequences of such occupational stress were found to be; decreased efficiency and capacity to achieve, lack of concern for the organization, and a disregard for colleagues' interactions and achievements.

Overall, the concept of burnout among nurses has received additional attention through extensive and continuous research, gathering momentum in recent years, especially among those working in mental health (Aiken, et al., 2002; Demir, et al., 2003; Happell, et al., 2003; Ogresta, et al., 2008; Pinikahana & Happell, 2004; Sahraian, et al., 2008; Sherring & Knight, 2009; Yousefy & Ghassemi, 2006). In particular, the working environment of mental health nurses encompasses high levels of emotional and psychological demands. Rössler (2012) notes that those working in mental health care are at high risk of burnout due to a range of factors such as; long working hours, an extensive workload, demanding relationships with patients; the risk of violence, and stigma associated with the profession. In addition, Rössler (2012) identified patient suicide being a major stressor, and one for which a high number of mental health workers report symptoms of post-traumatic stress. Similarly, Morse et al. (2012) identified mental health workers with high levels of involvement with those with severe mental illnesses experience higher than usual levels of burnout. This is likely to have an impact on both those providing and receiving care, as burnout has been shown to be associated with negative feelings about those who have severe mental health problems, as well as lower patient satisfaction (Morse et al., 2012).

Policy makers, researchers and administrators have placed extensive attention on burnout over the course of the previous few decades (Holmqvist & Jeanneau, 2006). What is more, it has been shown that burnout does not necessarily affect only individual workers, it can also impact upon the organisation through creating a reduction in productivity and prove detrimental to the quality of service provision (Schaufeli & Buunk, 2003). However,, it appears little attention has been given to reducing or preventing burnout, particularly among mental health professionals (Morse et al., 2012).

For almost 50 years, the importance of assessing, preventing, and over-coming burnout has been acknowledged (Freudenberger, 1970). There is a plethora of literature addressing the issue of burnout and its correlates, but with regard to decreasing or preventing burnout among nurses, especially mental health nurses who are more prone to burnout than other nursing colleagues, research remains limited (Hamaideh, 2011). Burnout among nurses has been associated with many factors, including: availability of social support, job satisfaction (Eastburg, et al., 2009; Happell, et al., 2003; Jenkins & Elliott, 2004; Spear, et al., 2004),

patient mortality rates (Aiken, et al., 2002), stress and inadequate coping skills (Dickson & Wright, 2008; Jaracz, et al., 2005), lack of clinical supervision (Edwards, et al., 2006; Hyrkas, 2005), intention to leave the profession or job (Jourdain & Chenevert, 2010), poor working environments (Hanrahan, et al., 2010; Kanai-Pak, et al., 2008), people's: gender, age, and years of experience, together with their experiences of working in more than one institution, the possibility of being involved in positions of management and hardiness (Queiros, et al., 2013), and nurses' quality of life (Hamaideh, 2012). In addition to identifying factors contributing to burnout other studies have focused on the incidence of burnout and are outlined below.

In a study undertaken by Al-Turki (2010) results showed the level of burnout among Saudi nurses was high, 45.9% for emotional exhaustion, 48.6% for depersonalization, and for personal accomplishments 13.6%. Al-Turki, (2010) concluded burnout can lead to further stress and job dissatisfaction, and emphasizes a need to be placed on the importance of prevention or reduction of burnout among Saudi nurses. Furthermore, AlSuliman and AlHablani (2014) found the level of burnout to be higher among nurses working in the West region of Saudi Arabia (75.9%) and therefore, this particular population is in greater need of prevention programmes which may be effective in managing or preventing burnout (Awa et al., 2010).

In another study Kilfedder et al. (2001) measured burnout that was prevalent among Scottish psychiatric nurses. The authors assessed burnout as part of a comprehensive model of occupational stressors, its mediators and moderators, and strains of burnout. Using stratified random sampling, the study included 510 psychiatric nurses from a health service that provides both acute and chronic mental health services. Data were collected using the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), which was employed as the dependent variable for the study, along with many other independent variables such as: demographic variables; analysis of work situations in terms of predicting, understanding and controlling these events; role conflict; ambiguous aspects of roles; uncertainty as to future position; stress unrelated to the job; work-related stress; strategy to cope with pressures; social sources of support; negative and positive affective factors; psychosomatic and physiological stress; psychological strain; and job satisfaction. The results showed that nurses reported both a moderate sense of achievement and emotional exhaustion, with low levels of depersonalization. From the total sample, only 2% had high levels of burnout. Nurses with no formal qualifications reported lower rates of emotional exhaustion, while male nurses had higher levels of depersonalization than female nurses. Higher burnout

levels were associated with physical and psychological symptomatology, occupational and non-occupational stressors, and job conflict. Regarding the predictors of burnout, results showed that the study variables accounted for 41.9%, 16.4%, and 25.6% for emotionally exhausted state, depersonalization and individual sense of achievement respectively. As burnout is caused by a number of factors, the authors of the study recommended the development of a comprehensive approach to minimise the level of burnout among psychiatric nurses at both an organizational and individual level. Specific interventions may be directed toward increasing predictability of job events, minimising conflicting tasks, providing support and advice regarding non-nursing duties, increased responsibility for those who have been in post for a sustained length of time and job rotations (Kilfedder et al., 2001).

Another study conducted by Jenkins and Elliott (2004) investigated the rates of burnout, the prevalence of stress factors and degree of social support, among qualified and non-qualified nurses working in mental health care in the south-east of England, including London. Data were collected from 93 mental health nurses using three measurement tools, namely the Social Support Scale (SSS), the Maslach Burnout Inventory (MBI) and the Mental Health Professional Stress Scale (MHPSS). From the data, differences were found between those nurses who were qualified and those who were unqualified with regards to stressors in the work environment. Results regarding burnout showed that half of the respondents reported a significant degree of burnout in terms of emotional exhaustion. A strong positive association was found between work stress and burnout, with the authors recommending many ways to reduce the effects of burnout, including staff support groups to minimize negative communication and encourage nurses to discuss their concerns in an open manner.

In Finland, Hyrkäs (2005) described and evaluated clinical supervision, and explored its correlation with levels of burnout and job satisfaction among those nurses working in psychiatric settings. Data were collected from 569 nurses working in different settings of mental health through completing a questionnaire consisting of the Manchester Clinical Supervision Scale (MCSS), Maslach Burnout Inventory (MBI), and Minnesota Job Satisfaction Scale (MJSS). The results demonstrated that 61.4% of the participants had a low score in depersonalization and personal accomplishment, and 29.1% had a high score for emotional exhaustion. Also, the author found a negative association between burnout and clinical supervision and job satisfaction, indicating that efficient clinical supervision can minimise burnout while raising job satisfaction levels for this professional group.

Sherring and Knight (2009) explored burnout among 166 nurses who were working in mental health care, in a UK inner city Trust. Using a survey, data was collected through use of the MBI (Maslach & Jackson, 1981), demographic questions, and some variables related to burnout such as; area of work, experience, shift pattern, sick leave, intention to leave, clinical supervision, feeling valued and supported in the workplace, and participation opportunities in the taking of decisions. When compared to normative values for mental health staff (Maslach et al., 1996), the results showed high levels of burnout among participants, with 20.5%, 21.7% and 41%, respectively for depersonalization, sense of individual achievement and emotional exhaustion. Nurses with higher levels of burnout reported taking more days off for sick leave and having greater intention to leave their current position than those who have lower levels of burnout, particularly in the domain of emotional exhaustion. Results also revealed a correlation between lower levels of burnout and a sense of being valued and supported in the workplace; a sense of participation in taking decisions; educational attainment; and sufficiency and frequency in clinical supervision. The authors suggested several strategies which may reduce the overall burnout level among nurses working in mental health care, such as providing adequate supervision programmes and involving nurses in decision-making within their institution. Also, they recommended conducting studies to explore the relationship between burnout and academic qualifications. Such a study was carried out by Sorgaard et al. (2010), who compared burnout between qualified and unqualified mental health nurses, although this does not necessarily take account of academic qualification.

Sorgaard et al. (2010) collected data from 124 staff nurses and 72 non-registered care givers working in acute mental health settings or in community mental teams, from five European countries, to examine if there is a difference between qualified and non-qualified mental health nurses in regard to burnout. Data was collected using a survey consisting of the Mental Health Professional Stress Scale MHPSS (Cushway, et al., 1996), the MBI (Maslach & Jackson, 1981) and the Psychosocial Work Environment and Stress Questionnaire (PWESQ) (Agervold, 1998). They found no differences in burnout domains between qualified and unqualified mental health nurses. The authors of this study concluded that both qualified and unqualified mental health nurses reported almost the same level of burnout, and any intervention introduced to minimise the effect of burnout should be directed to all mental health nurses regardless of qualification.

Hanrahan, et al. (2010) examined the effect of mental health nurses working in acute care general hospitals and its relationship to burnout. A sample of 353 psychiatric nurses, who were working within inpatient psychiatric services in general hospitals, provided data using a survey which consisted of the Practice Environment Scale- Nurse Work Index (Lake, E. T. 2002) and the MBI (Maslach et al., 1996). Results demonstrated burnout levels were lower among psychiatric nurses who work in settings with effective management, good-quality surroundings/environment, lower patient - psychiatric nurse ratio, and close working relationships with doctors and nursing colleagues. In considering these findings, Hanrahan, et al., (2010) recommend enhancing the environment in which psychiatric nursing work takes place as a step toward retention and further recruitment of this professional group.

Burnout Prevention Programme

Intervention programme for reducing burnout can be directed to individuals (for example nurses) or organizations (for example hospitals) or a combination of both. Programme directed at individuals usually adopt a cognitive behavioural approach, with the aim of reducing burnout by enhancing competencies, coping skills and social support. The organization-directed programme aimed at reducing burnout tend to focus on enhancing the work environment, procedures, supervision, and decreasing job demands (Awa, et al., 2010). It is suggested that a combination of both programs leads to better results on burnout reduction (Awa, et al., 2010; Günüşen, and Üstün, 2009).

In a randomised control trial Peterson et al. (2008) examined at the efficacy of peer-support. Using self-report questionnaires they examined how burnout has a connection with self-reported physical and mental health, psychological and social factors at work and lifestyle influences. Some research on the probable link between lifestyle influences and burnout has produced somewhat unpredictable results. Most of the earlier exploration on potential health inferences of burnout has concentrated on its negative impact on mental health. Emotional exhaustion seems to be the most noticeable display of burnout, which has also being positively related with the amount of work one has. Self-reported despair, nervousness, disturbance in sleep, memory loss and neck and back pain are more likely to be reported where there are higher levels of burnout.

High Expressed Emotion (HEE)

Some of the symptoms described above are in keeping with HEE (Rosnay et al., 2004; Praker, 2006), for example despair, disturbance in sleep. For the last few decades, HEE has been considered a significant factor in psychological and social disturbances. With regard to nursing, it often reflects the extent to which a nurse expresses critical, hostile, or emotionally over involved attitudes (Praker, 2006). A number of studies have examined the effectiveness of mindfulness in buffering the negative consequences of HEE and in reducing symptoms of burnout, enhancing relaxation, and improving life satisfaction (Hooley & Praker, 2006). Effective control of HEE using mindfulness has evaluated positively on nursing performance and health care outcomes (Treasure et al., 2015). Evidence suggests working in a mental health setting is stressful therefore, mindfulness might be a useful technique that can be employed by nurses to prevent negative consequences of HEE (Fortinash & Worret, 2014). Furthermore, Makenzie et al. (2006) found that a short mindfulness training programme can be used in nursing practice to reduce symptoms of burnout and improve life satisfaction, consequently, improving work performance and the quality of care provided.

In addition, mindfulness as a technique as been adopted to help prevent relapse in patients suffering with depression. As depression and burnout are shown to have some similarities in terms of symptomatology it may therefore be considered as a useful technique in addressing burnout. According to Reibel et al (2001) Mindfulness-Based Stress Reduction (MBSR) was created originally as a patient-centred, 8-week, evidence-based intervention which focuses on teaching and training mindfulness meditation, basic yoga, breathing work, and other leisure and relaxation methods. MBSR was developed originally by Jon Kabat-Zinn in 1979, at the University of Massachusetts Medical Centre in an attempt to educate patients with chronic and constant medical conditions in how to lead healthier and fuller lives. *Mindfulness* is stated as a self-directed exercise, practiced for calming the mind and relaxing the body through focusing on present-moment knowledge and wakefulness. The importance of mindfulness is continuing at the present moment, striving for a non-judgmental attitude of recognition and approval. Particular to the health care sector, a review of ten studies of the impact of MBSR on the health and wellbeing of health care professionals identified that MBSR consistently had a positive effect by reducing anxiety and stress, while also lessening emotional tiredness and exhaustion (Irving et al, 2009). Even though there has been limited research regarding the impact of MBSR, specifically on nurses, researchers (Reibel et al., 2001) have identified the necessity for more research to be

undertaken. These necessary developments include frame of mind, disposition and burnout pre- and post-MBSR involvement, and among MBSR involvement groups compared to control groups. Additionally, when using qualitative interviews the nurses exposed to the MBSR programme suggested there was improvement in their interpersonal communication and interactions, self-awareness through becoming more reflective and mindful, efficiency and effectiveness at dealing with stress, and capability in taking control of their lives (Frisvold et al., 2012). Even though the above study confirmed that MBSR could decrease burnout and its related stress, and enhance health, other possible advantages of using MBSR could include raised empathy, serenity, and self-compassion: all characteristics crucial to the delivery of good health care (Irving et al., 2009).

Other studies which have considered the prevention of burnout have often examined the effects of burnout prevention programme, with the majority showing a decrease in the level of burnout or in its subscales (Kravits, et al., 2010; Onan, et al., 2013; Salyers, et al., 2011). For example, Onan et al., (2013) found that emotional exhaustion reduced significantly after a burnout prevention program among Turkish oncology nurses. In another study, Salyers et al. (2011) found that emotional exhaustion and depersonalization were reduced among mental health professionals after implementing a one-day workshop on burnout prevention. Further, Kravits, et al., (2010) found that a psycho-educational intervention program to reduce stress and burnout, using self-care strategies, was useful in reducing emotional exhaustion in nurses.

Previous studies (Garrosa et al., 2010) found nurses with lower depersonalization and higher personal accomplishment, and higher levels of control and social support had comparatively lower levels of stress. Moreover, it has been reported that nurses who adapt confrontational conflict resolution styles are more likely to suffer stress and depersonalization (Montoro-Rodriguez & Small., 2006). This is supported by Iglesias et al. (2010) who found that nurses who had high scores on acceptance and action, had high levels of stress and depersonalization and low level of personal accomplishment. This infers a connection has been established between work stress and negative emotional and personal interactions and expressions.

The studies exploring burnout in mental health nursing within Saudi Arabia are scarce, and there are no studies currently available that report on the effects of a prevention programme on the level of burnout among nurses working in mental health care within Saudi Arabia. Therefore, this study aims to make a unique contribution to the existing

literature by examining the level of burnout among nurses working within mental health care settings in Saudi Arabia and to evaluate the effectiveness of a burnout prevention program on reducing the levels of burnout among the target group over an extended time period.

Research Questions

What are the levels of burnout as a whole, and in the subscales of emotional exhaustion, depersonalization, and personal accomplishments, among mental health nurses in Saudi Arabia?

What are the characteristic variables that may predict burnout among mental health nurses in Saudi Arabia?

What is the effect of implementing a burnout prevention programme in reducing stress among mental health nurses in Saudi Arabia after one, three and six months intervals after attending the programme?

Significance of this study

This research aimed to fill an important gap in the literature. It is the first study undertaken in Saudi Arabia to examine the effect of a structured educational program aimed at reducing the level of burnout among mental health nurses working in the Saudi psychiatric care system. This is particularly important as research suggests the level of burnout among mental health professionals has implications for the quality of care offered to those who seek out help for their mental illness. While the study will add to a small body of knowledge, it will also have the potential to provide policy makers with evidence as how best to reduce burnout among mental health nurses delivering mental health care in Saudi Arabia.

Reasons for choosing this research

After working in a hospital for 12 years, I noticed that there was a considerable amount of burnout among nurses. I wanted to see if how widespread this was among mental health nurses, and whether or not a stress reduction programme would help to reduce these levels of burnout and its efficacy over a given period of time.

CHAPTER THREE: BURNOUT IN NURSING

Introduction

Within the chapter burnout and its effects are considered. Due the plethora of literature regarding mental health nurses and burnout it was decided that a chapter presenting this information would be useful to the reader of this thesis in helping to understand the enormity of the problem on a global level. Additionally, some of the information included in this chapter helped the researcher to develop his programme of burnout prevention which is the focus of this research.

Definition of Burnout as a Professional Concept

The term 'burnout' has been defined as "*a psychological syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who work with other people in some capacity*" (Maslach et al., 1996, p 292). Firstly, emotional exhaustion, which has been considered as the main component of a professional's burnout syndrome, stems from the feeling of not possessing the ability to provide more to a given task, while still functioning effectively and beneficially. Depersonalization in relation to work, often incorporates nurses being cynical and negative towards their job, as well as harboring negative thoughts towards patients that can ultimately prove detrimental to the process of care. For instance, such feelings of negativity may cause a nurse to subsequently blame their patients for the problems that are occurring in their practice, and thus, distance themselves from the responsibility they need to own as professionals. In fact, the issue of nursing negativity towards patients and its consequences has been discussed extensively throughout the literature, and in particular among health care professionals and nurses (Hamdan et al., 2009).

It has been noted that burnout is an evidential problem that can often occur in human service jobs, and nursing professionals have been shown to be one of the highest risk groups in the sector (Günüsen & Üstün, 2010). As mentioned previously, burnout is a multidimensional phenomenon, which is defined by an individual's emotional exhaustion and depersonalization from the task or surroundings that are enhanced through a lack of professional and personal accomplishments (Pereira et al., 2011; Purvanova & Muros, 2010). Indeed, it has been suggested that a negative self-evaluation from an individual in relation to their overall effectiveness within their sphere of work can be actively reduced

through a definite sense of professional and personal accomplishments (Morse et al., 2012).

Using the Maslach Burnout Inventory

Burnout is a common stress-related syndrome among professionals (Holmqvist & Jeanneau, 2006). In particular, burnout is more pronounced in professions which are emotionally charged or dictating high levels of interpersonal work relations such as in the mental health profession (Volpe et al., 2014). Though appreciated as a real health problem among professionals, variations exist in the definition of burnout, with majority of researchers settling for the multifaceted meaning outlined in the Maslach Burnout Inventory (MBI) (Holmqvist & Jeanneau, 2006; Madathil, et al., 2014; Morse et al., 2012; Volpe et al., 2014). According to Morse et al. (2012), the Maslach Burnout Inventory is preferred because it simplifies the process through the categorizing of the signs of burnout into three dimensions.

The Maslach Burnout Inventory (MBI) questionnaire defines burnout based on three core dimensions; emotional exhaustion, depersonalization and personal accomplishment (Happell et al., 2003). The emotional exhaustion dimension is defined by signs such as feelings of lacking energy, fatigue, and depletion or worn-out (Maslach, Leiter & Schaufeli, 2008). For many researchers, though exhaustion is in most cases expressed physically, it is an indicator of psychological or emotional exhaustion like loss of concern or feelings (Edwards & Hercelinskyj, 2007; Holmqvist & Jeanneau, 2006; Katschnig, 2010). Depersonalization, on the other hand, encompasses signs of a negative attitude towards clients and co-workers or services in general; irritability; dynamism; and the tendency of withdrawal or isolation (Madathil, 2010; Maslach, et al., 2008). Personal accomplishment within the context of the MBI includes issues related to the extent to which the person portrays negative self-evaluation of personal effectiveness with regard to clients, others by professionals and the organisation (Taylor & Barling, 2004).

In a systematic review of the literature, Richards et al. (2006) found that the level of burnout was not uniform across Maslach's three dimensions of burnout; personal accomplishment, depersonalization, and EE. In particular, EE levels appear to be high, although those of personal accomplishments and depersonalization varied. In contrast, other researchers found low EE levels together with high or neutral work satisfaction levels among psychiatric nurses (Hamaideh, 2011; Richards et al., 2006). Additionally, while

exploring burnout and stress in acute psychiatric care, Sorgaard et al. (2007) failed to identify problematic burnout levels.

Prevalence of Burnout among Mental Health Professionals

A review of available literature indicates a prevalence rate of burnout of between 20-67% among mental health professionals (Holmqvist & Jeanneau, 2006; Morse et al., 2012; Volpe, et al., 2014; Wang, et al., 2012). In particular, nurses who work in mental health facilities have been identified as being particularly prone to such problems. Morse et al. (2012) estimated burnout to affect between 21% and 67% of mental health professionals, while Volpe et al. (2014), exploring the prevalence rates of burnout in mental health professionals and mental health non-professionals, established that high levels of burnout affect over 50% of the mental health professionals and almost 30% of non-medical mental health professionals in their early career life. Similar findings have been found in numerous other studies with a consensus that this difference in prevalence of burnout between medical and non-medical professionals can be attributed to differences in the level and nature of involvement and relationship with clients and co-workers (Estiri, et al., 2016; Goalder & Schultz, 2008; Prosser, et al., 1996). Furthermore, a number of research studies have linked these differences in the prevalence of burnout among professionals to factors such as the nature of work and required level of relationship with clients (Edwards & Hercelinskyj, 2007; Holmqvist & Jeanneau, 2006; Katschnig, 2010). Hence, it is evident that burnout for these professionals needs to be reduced in order to improve the provision of care delivered within this sector of healthcare.

Across studies the aspect of exhaustion is of primary importance. This view is supported by the argument of other dimensions of burnout are prompted by exhaustion (Maslach, et al., 2008). In their study, Edwards and Hercelinskyj (2007) argued that the otherwise unique personality traits exhibited by mental health professionals and the challenge of dealing with hostile clients are account for the high levels of burnout in mental health nurses. This is based on the association between personality and resilience, or ability to cope with work-related stressors, and where the latter is absent feelings of lacking energy and developing a negative attitude towards clients and the workplace may become commonplace (Holmqvist & Jeanneau, 2006; Wang, et al., 2012). For Maslach, et al. (2008), it is these signs of emotional exhaustion whose cumulative effect lead to signs of depersonalization and a negated self-evaluation of personal accomplishment.

However, for McTiernan and McDonald (2015), burnout among mental health nurses is the result of the undue accumulated effects of a variety of stressors such as workload, anxiety, dealing with hostile clients, and personality traits. A study by Jenkins and Elliott (2004) suggested the length of service can lead to increased risk of sustaining high levels of burnout, but does not necessarily translate to more exposure to the risk factors that cause burnout. This conclusion was supported by Rössler (2012) who asserted that a lengthy period of professional service can mean being better positioned in dealing with both the causes and the effects of burnout. It is due to this perceived importance of ability to cope that a number of studies have claimed that the effective utilization of burnout intervention programs can sufficiently help in addressing the problem of burnout and its associated effects on mental health nurses (Hanrahan, et al., 2010; Karanikola & Papathanassoglou, 2013; Piko, 2006). Of particular significance here, in order to be effective, such interventions should strive to address both the individual and organizational factors causing or fostering the burnout problem (Siebert, 2005).

There are numerous studies which have claimed differences in the prevalence of burnout among mental health nurses based on the nature of the workplace environment and their specific psychological and emotional needs. For example, Kilfedder, et al.'s (2001) study found that when compared to mental health nurse working in community-based environments, mental health nurses in inpatient-based settings enjoy a lower risk of sustaining burnout. In contrast, Whittington (2002) established that mental health nurses working independently and/or autonomously are at a lower risk of burnout compared to their counterparts in institutional or community-based work environments. These differences were attributed to issues such as workload which is not only high, but less flexible in an agency-based setting compared to an independent-based work environment (Whittington, 2002). In addition, community-based work settings are more prone to hostile relationships (Hyrkäs, 2005).

Nursing is a caring profession that requires a high level of therapeutic techniques including autonomy, empathy, and integrity (Madathil et al., 2014). Nurses need to integrate all these components into their practice to provide high level quality of care. Autonomy (Greek: Auto-Nomos where nomos means 'law': one who gives oneself his/her own law) is the right to self-government. However, autonomy in nursing includes a broader perspective in which nurses acquire and demonstrate the skills of being an autonomous practitioner. Autonomy is described as a key factor in decision making within health care systems, and can buffer negative consequences of burnout among health care professionals (Le Blanc et

al., 2007). Having greater autonomy can increase job satisfaction resulting in higher levels of performance and better nursing care. Therefore, interventions aimed at enhancing autonomy among nurses are expected to improve personal performance, the quality of care being delivered and patients' satisfaction, with the latter being achieved through nurses encouraging patients to be more involved in decisions related to their health (Myhren et al., 2013). This infers that interventions promoting professional autonomy (e.g. decision making, consultation and collaboration) will enable mental health nurses who may be exposed to work related stress, to reduce their risk of burnout (Adriaenssens et al., 2014). In their study, Madathil, et al. (2014) claimed the existence of a negative relationship between autonomy and burnout, due to the effect that autonomy has in promoting flexibility and a feeling of control by mental health nurses over their work. Madathil et al. (2014), suggested this seemed to enhance the feeling of self-fulfillment, and hence improve the score on personal accomplishment.

However, since workload and the number of working hours directly translate to the amount of contact or exposure of mental health nurses to clients and co-workers, these two characteristics of the work environment are positively correlated to burn out (Angermeyer, et al., 2006; Edwards, et al., 2006). Regardless of the work environment, leadership style and the availability and utilization of burnout intervention programs or measures significantly influence on the prevalence of burnout among mental health nurses (Hyrkäs, 2005). On leadership style and resolving the problem of burnout, studies by Kilfedder et al. (2001) and Angermeyer et al. (2006) asserted that effective leadership serves to better identify and address the psychological and emotional needs of psychiatric nurses. Similar assertions were made by Whittington (2002) who claimed that burnout intervention programs enhance the ability of mental health nurses to better cope with burnout. For Edwards et al. (2006), differences have continued to mark the findings of different studies on different risk factors to burnout. This implies the need for further research on the topic with a view to examine the validity of the claimed correlations between different possible risk factors and the problem of burnout among mental health nurses. Gary et al. (2012) stated that burnout is gradually increasing and observed as a concern in the mental health field. This paper explored to what extent burnout is an issue for mental health services, its occurrence and its implications with a range of detrimental effects for staff, organizations, and consumers. Gary et al. (2012) concluded there needs to be expansion and more rigorous testing of intervention methods in order give further insight to this critical area.

Impact of Burnout on the Nursing Profession

The overall impact of burnout that is felt by any working professional is associated with negative consequences, which include poor health outcomes and poor job performance (Morse et al., 2012). Indeed, nurses who experience the symptoms of burnout are more likely to have an intention to resign from their current job and are more likely to be prone to absenteeism, which ultimately affects efficiency and productivity (Günüsen & Üstün, 2010).

Burnout and its detrimental effects have been found to be commonly associated with job demands, work stressors, work satisfaction, and coping strategies. Al-Turki (2010) found that burnout is very common in professions that demand higher levels of commitment, routines that are associated with stressful work, and those with high levels of performance activity. Health care professionals have been identified as a group of individuals who are normally among those at higher risk of burnout, due to increased work stress and high job demands (Al-Turki, 2010).

Nevertheless, a conceptual analysis of burnout among nurses has demonstrated that burnout differs from one workplace to another (Günüsen & Üstün, 2010). Accordingly, it has been shown that nurses who work in highly demanding situations, which can involve intensive care units, oncology, and accident and emergency, all start to experience high levels of psychological and physical stress, and as a consequence, this can often result in burnout (Al Turki, 2010). As a result, nurses who experience burnout will consequently provide suboptimal care to patients, with poor performance and the delivery of low quality care, which is likely to have negative consequences in regards to the safety and well-being of patients. However, it must be noted that burnout is often experienced at an unconscious level, as the individual nurse is not normally aware of their stress and fail to notice exactly how it is impacting on their ability to deliver quality patient care (Al-Turki, 2010).

Nursing professionals provide healthcare to people and their families simultaneously, as well as perpetually witnessing serious injuries, disability, loneliness, pain, and death. As a result, these forms of experience are often referred to as 'the emotionality of nursing,' which should not be taken lightly (Warne & McAndrew, 2008), as they can lead to secondary psychological trauma that can increase the risk of burnout experienced by nurses. In addition, current healthcare settings appear to be adding to the risk of burnout

among nurses, due to nursing staff shortages, complex shift patterns and increased patient acuity (Günösen & Üstün, 2010; Xie, et al., 2011).

Research has indicated that there are factors within three specific categories which appear to relate directly to burnout experienced by nurses (Xie et al., 2011). Firstly, there are demographic factors, which often include nursing experience, grade and age; secondly, buffering factors, which include coping strategies; and thirdly, organizational factors such as that of poor retention. Similarly, Greenglass, et al. (2001) demonstrated an increase in workload is positively correlated with emotional exhaustion, with evidence to show the negative effects of this impact on professional efficacy. Prolonged stress, in particular, has been postulated to result in burnout, especially when there is an imbalance between work demands and individual capacity (Wu et al., 2007).

Nurses who work within a hospital environment having a high patient-to-nurse ratio have been shown to possess an increased likelihood of experiencing burnout in their professional life (Xie et al., 2011). In their study, Xie et al. (2011) investigated the problems in Shanghai, China, occurring from burnout among nurses and its association with occupational stress. Results showed a strong correlation between elevated levels of burnout and the work-related stress experienced by the nurses. Hence, these findings suggest that occupational stress plays a major role in predisposing nurses to the occurrence of burnout. Indeed, occupational stress is particularly concerning as a contributing factor, as it could compromise the health and well-being of the nurses, which then can adversely affect the care of patients (Xie et al., 2011). Similar findings were reported by Suñer-soler et al. (2013), who found a high level of burnout compromised the health of healthcare professionals (Suner-Soler et al. 2013).

Overall, there is a substantial amount of literature regarding the prevalence of burnout and its effects within mental health nurses. In a study by Shirom (2006), it was found that one positive predictor of global burnout stemmed from work overload, while a negative predictor was shown to be nursing autonomy, as this functioned as a protective factor. Moreover, it was stipulated that the amount of hours that are worked positively predicted perceived overload, although it failed to actively predict the levels of burnout. Likewise, in a review of UK literature that examined stress amongst social workers currently employed in mental health institutions, similar results were observed, indicating that autonomy could positively influence job satisfaction (Edwards et al., 2006).

In a study carried out in Iran, which comprised of 180 nurses working in five public hospitals, levels of burnout were compared between different in-patient wards: burns, psychiatry, and surgery (Sahraian et al., 2008). Using translated versions of the Maslach Burnout Inventory (MBI) and General Health Questionnaire (GHQ), researchers examined both burnout and non-psychotic psychiatric symptoms. Overall, it was found that approximately 25% of those participating met the burnout criteria (Sahraian et al., 2008). One specific group, the nursing professionals who were working in psychiatry wards, reported an increased level of burnout when compared to the nurses who were working on the other wards. Pompili et al. (2006) explored burnout and hopelessness in relation to psychological defense mechanisms among a sample of 120 Italian nurses. Participants in that study were employed in psychiatry, general medicine/rehabilitation, and critical care/surgery. The results indicated that nurses in psychiatric wards and seven general medicine/rehab wards had higher burnout levels when compared to their contemporaries who were working in critical care/surgery wards (Pompili et al., 2006). It was also determined that the risk of suicide was distinctly more acute in relation to nurses working in psychiatry when compared with the other two groups.

Burnout has also been shown to affect the healthcare professionals' quality of life (Maslach et al. 2001; Shimizu et al. 2003). In general, levels of work-related stress are considered to be dangerously high among nurses (Koivula et al., 2000). This is due to their extended hours of work, excessive amounts and diversity of tasks, and the continual changing and redefining of complicated and vital relationships that are developed with patients and their families. In addition, conflicts that occur with physicians and nursing colleagues over the delivery of care contribute to work related stress for nurses (Maslach et al. 2001, Shimizu et al. 2003). It was reported by Vahey et al. (2004) that approximately 40% of all nurses who work in hospitals are suffering from burnout and its effects, and 20% of these, are nurses commonly considering resigning from their health care posts within the following twelve months. As a consequence, the treatment and care received by patients is ultimately affected by the high rates of exhaustion felt by nurses. Accordingly, those nursing professionals that are suffering from the effects of burnout, or who define themselves as being 'unhappy' in their jobs, and ultimately 'unhealthy,' will struggle to provide the care that the service and their patients demand (Koivula et al., 2000).

Burnout and Organizational Structure

A number of studies have explored organizational and nurse characteristics and found a direct correlation between burnout and environmental factors (Bowers et al., 2009; Hanrahan et al., 2010). For example, in the United Kingdom, perceived lack of organization and order in the workplace, verbal abuse from patients, longer job tenure, and higher qualifications were identified as predictors of burnout (Bowers et al., 2009). In a US study (Hanrahan et al., 2010) linked lower burnout levels to more supportive and flexible practice environments among mental health nurses working in general hospital psychiatric inpatient units. The authors also found effective leadership ability and management skills, as well as positive physician-nurse relations were significantly linked to a decrease in depersonalization and emotional exhaustion (Hanrahan et al., 2010).

To add to the existing literature, Van Bogaert et al. (2013) examined the connection between the workload experienced by nurses, the practice environment that they work in, the quality of care that was reported by nurses, overall job outcomes, and the burnout experienced by the members of staff in psychiatric hospitals. As a result, it was found that positive nurse-physician relationships, a healthy hospital and nursing management styles do contribute to the levels of satisfaction felt by nurses. Like-wise, negative experiences can increase employee turnover and the individual's intention to leave their post.

There are a number of factors that may contribute to the levels of burnout experienced by nurses, together with their association to overall job satisfaction. For example, the quality of the work environment can affect burnout in both a person's private and working life (Foroghfar & Mahmoudi, 2015). In relation to health care professionals, nurses often work in sophisticated organizational settings that expose them to various stressors over time, increasing their likelihood of developing burnout. Moreover, changing economic trends are reflected in the healthcare sectors, and this necessitates workers having to work longer hours and provide care for more acutely ill people, thereby increasing their overall workloads and subsequently the level of stress inherent in their job (Queiros et al., 2013). The literature, in general, indicates that among mental health nurses, workload, organizational support, nurse-patient ratio, and available resources are among the main factors that impact on the nurses' ability to manage their stress at work. As a consequence, this may contribute in compromising a person's wellbeing, which will cause higher levels of burnout.

Burnout and Job Satisfaction

In general, the term 'job satisfaction' refers to how an employee reacts positively to the tasks that they need to perform within their role and/or if they have a high level of enjoyment within their place of employment (Kekana, et al., 2007). In their study Kekana, et al. (2007) categorized their findings into working conditions and job satisfaction, with the former relating to an individual's job satisfaction being subsequently divided into the categories of environmental and personal. Environmental working conditions were identified as including: job characteristics, role variables, organizational constraints, pay, work-family conflict, workload, work schedules, job stress and control. Personal conditions of job satisfaction include; person-job fit, negative affectivity, personality traits and locus of control. The possible effects of job satisfaction also were analyzed (Kekana et al., 2007). Furthermore, job performance, withdrawal behavior, absenteeism, turnover, and burnout were associated positively with job dissatisfaction, while physical health and psychological well-being are associated positively with job satisfaction among nurses (Kekana et al., 2007; Mrayyan, 2005).

Job satisfaction among nurses has been a popular topic of research over the past few decades. Wide research has shown that job satisfaction affects productivity and performance of nurses (Hayes et al., 2015; Lu et al., 2012). A high level of job satisfaction among nurses has been associated positively with the intention to remain in employment, and negatively with high turnover rates (Hayes et al., 2015; Lu et al., 2012). However, work-family conflict, stress, and burnout are also thought to be significantly impacted by high job demands experienced by nurses (Cho et al., 2014; Hayes et al., 2015; Lu et al., 2012). High levels of job satisfaction among individuals have been found to influence the social, psychological and physical wellbeing of nurses, and have a positive impact on the organizational outcomes, which often results in a decrease in burnout levels among nursing professionals (Kreitner & Kinicki, 2007).

Studies have examined particular causes and predictors that influence job satisfaction, specific dimensions that are attributed to job satisfaction, as well as the direct relationship that exists between job satisfaction and potential outcomes that relate to employee burnout, commitment levels and turnover (Cho et al., 2014; Hayes et al., 2015; Lu et al., 2012). Job satisfaction has been examined as a strong predictor of staff retention (Brewer et al., 2012; Lynn & Redman 2005; McCarthy et al., 2007), quality of nursing care (Mrayyan, 2006),

and a quality indicator in health care services (Siqueira & Kuregant, 2012). In contrast, low levels of nurses' job satisfaction have resulted in higher absenteeism (Josias, 2005; Kreitner & Kinicki, 2007). For instance, through a meta-analysis in one specific study, it was shown that job satisfaction, pay, advancement opportunity, marital status, autonomy, job stress and group unity were organizational factors that are commonly associated with nursing turnover (Yin & Yang, 2002). Emami et al. (2012) concluded, after analyzing data from 36 research studies, that job satisfaction was increasingly related to, and ultimately affected by organizational commitment and loyalty. They added that when an employee experiences high job satisfaction, it will reflect positively towards the organization in question, and thus, this directly influences the nurse's intention to stay in their post. Conversely, it was found that job dissatisfaction is associated with levels of depression, subjective stress, anxiety, hostility; and the intensity and frequency of stressful events.

In a study regarding burnout undertaken in Japanese hospitals, particular focus was on job dissatisfaction and care quality (Kanai-Pak et al., 2008). The study focused on prevalent factors within the clinical work environment through a cross-sectional survey of 5,956 nurses who were working in 302 units based in 19 different acute hospitals. As a result, it was determined that just over 50% of nurses reported high burnout scores, 60% of the nursing professionals were generally dissatisfied with their current job, and poor care was reported by just less than 60%. These results could suggest job dissatisfaction might be an important factor that contributes to nurses' burnout. McHugh et al. (2011) found dissatisfied nurses' high turnover rates and high levels of burnout negatively affect the quality of care. Among mental health nurses, previous studies reported that job dissatisfaction is associated with various organizational stressors, including poor work environments, lack of resources, lack of positive feedback, heavy workload, and low salary; all of which may lead to burnout (Al-Saraireh et al. 2014).

In Saudi Arabia, through the use of a multi-centre approach to samples, which include mental and general health hospitals, a positive association between organizational commitment, years of experience and job satisfaction has been demonstrated (Al-Ahmadi 2009). Specifically, psychiatric nurses have been found to report lower levels of job satisfaction compared to other healthcare workers (Al Saraireh et al., 2014). Moreover, various factors have been identified as influencing job satisfaction among nurses, including, but not limited to, organizational change, motivation, and satisfaction of lower-order needs such as monetary compensation, fair work practices, and a safe work environment.

Among mental health nurses, it has been found that nurses express more satisfaction with acute psychiatric units at large psychiatric hospitals than nurses working in district hospital units (Ward, & Cowman, 2007). Additionally, community psychiatric nurses have been found to report significantly more positive job satisfaction when compared with the psychiatric nurses who work on wards. It was identified that the location of work is an important factor that influences psychiatric nurses' level of satisfaction with their job (Ward & Cowman, 2007). Additionally, Ward & Cowman (2007) also identified other factors, which promoted job satisfaction, including; working environments, teamwork, staff allocation/off duty arrangements, work routines, as well as the choice of work location.

Researchers have demonstrated a negative association between job satisfaction and staff turnover among nurses. In a study carried out by Al Saraireh et al. (2014), it was reported that approximately 45% of mental health nurses actually intended to leave their current job. They also found that an increased number of older nurses have higher levels of job dissatisfaction and an intention to leave their posts than their younger counterparts. The evidence above shows a strong correlation between job dissatisfaction and high staff turnover among the nursing profession, the former often resulting in the compromise of a person's psychological and physical wellbeing, signifying possible burnout for a nurse. A study by Mrayyan (2005), found that the intention to leave the profession has been associated with burnout syndrome (emotional exhaustion and depersonalization) and that negative symptoms have been found to be associated with depersonalization and poor communication at an organizational level.

Burnout and Working Conditions

Research has demonstrated that there is a significant correlation between favorable practice environments for nurses and favorable nursing outcomes, including lower nurse turnover rates, more job satisfaction, and lower nurse burnout (Shang et al., 2013). Shang et al, 2013, conducted a survey of 4,047 nurses from 282 hospitals in 3 states, assessing nursing outcomes and the practice environments of oncology and medical-surgical departments. Oncology nurses reported more favourable practice environments than medical-surgical nurses as well as better outcomes. Shang et al., (2013) concluded that improving the quality of hospital practice environments has the potential to help in the reduction of

burnout, which could subsequently improve nurses' well-being, retention rates, and the quality of patient care being provided (Shang et al., 2013).

Researchers have also investigated perceived organizational factors and job-related characteristics in the prediction of burnout among community-based psychiatric staff (Queiros et al., 2013). Perceived unfairness, poor group cohesion, longer mental health care tenure, and higher frequency of face-to-face interaction with service users, have all been identified as predictors of burnout (Lasalvia et al., 2009). This infers that nurses may actually tend not to leave their job, even though they are suffering from poor mental health due to other contributing factors such as needing to work to pay bills, and/or there not being another job to go. In other words, nurses, due to high levels of burnout symptoms, may have a poor mental health status, and therefore their quality of care becomes increasingly low due to their low level of functional ability, poor concentration, and absenteeism.

Ray et al. (2013) carried out a study to determine the associations between work-life conditions, compassion fatigue, compassion satisfaction and burnout among frontline mental health care professionals. Their study revealed that lower compassion fatigue levels, higher compassion satisfaction levels, and higher overall fitness within the six work-life areas of; workload, control, community, fairness, rewards, and values, were predictive of lower burnout among frontline mental health care professionals. Likewise, Foroghfar and Mahmoudi (2015) conducted a study to investigate the influence of various factors on working life quality and burnout among senior nursing staff in Iran. Their study revealed statistically significant associations between working environment characteristics and burnout. As a consequence, staff morale, safety and effective healthy lifestyle management and maintenance were found to be important factors that affected the quality of an individual's working life and the level of burnout they experienced.

Similarly, Skefales et al. (2014) investigated the financial crisis that is associated with changes in working conditions and their relationship with burnout among Greek nurses. Their study revealed high burnout levels among participants, with the quality of care and job satisfaction being independent higher predictors of EE. Care quality satisfaction and job satisfaction were found to be independent predictors of lower levels of depersonalization. Conversely, changes in working relationships and the willingness to change from the profession of nursing to a different career were found to be independent predictors of higher depersonalization. Overall, nursing efficiency, which was influenced

by a reduction of income, was found to be an independent lower personal accomplishment predictor.

Burnout and Work Performance

Research has suggested that happy and engaged employees are more productive in their jobs, whereas those who lack motivation and other resources display performance decrements (Dewett & Denisi, 2007). In a study carried out by Demerouti et al. (2014) it was suggested that '*happy workers*' display higher job-related performance levels compared with '*unhappy workers*'. This association can be explained by the fact that happy people, who tend to be more sensitive to work opportunities, are more optimistic and confident, and more outgoing and helpful to others (Dewett & Denisi, 2007).

Nonetheless, when environmental stressors, such as time pressure, high workload, heat, noise and high job demands confront individuals, they tend to employ 'performance protection strategies', which restrict low-priority task components through a personal selective process (Dewett & Denisi, 2007). Indeed, this formulation potentially neglects to take into account the secondary aspects of workload such as competitiveness within the work environment, which means that a strategy of selection will impact upon the secondary aspects found in performance, even though this will remain irrelevant in regards to the primary aspects i.e. the need to survive. Therefore, the research considered change-related behavior in the form of behavior through citizenship or performance through an additionally adopted role (Dewett & Denisi, 2007). Accordingly, this performance through an additional role is normally seen to represent the way that a satisfied employee highlights their gratitude to the organization they are working for, thus reiterating their current level of job satisfaction. According to Demerouti et al., (2014) compensation was the most successful strategy in challenging the negative effects of burnout, both on performance of tasks and adaptivity to change.

Poor job performance has commonly been shown to have a direct correlation with excessive levels of burnout among mental health workers (Kilfedder et al., 2001). Psychiatric nurses are said to experience increased stress levels in regards to the tasks inherent in their job and subsequently a higher burnout rate, negatively impacting on their job performance and satisfaction (Ashtari et al., 2009). However, the parameters of this conclusion seem to vary from one country to another. For instance, a study carried out in the Netherlands and the United States demonstrated that mental health staff in the US have

lower levels of burnout, and thus, better job performance, compared with those who work in the Netherlands (Kilfedder et al., 2001).

Ashtari et al. (2009) carried out a study to investigate the association between job performance and burnout among psychiatric staff in Iran. Their study revealed high levels of burnout among the staff, as well as identifying a significant relationship between burnout and inadequate job performance. However, some researchers argue that burnout only has a limited effect on job performance (Kilfedder et al., 2001). Kilfedder et al., (2001) demonstrated that the favorable impact of work engagement and job satisfaction on performance is stronger, compared with the unfavorable impact of burnout. They stipulated that adaptive strategies are utilized by employees in order to assist them in perpetuating acceptable levels of performance, even if they are experiencing the effects of burnout, consequently determining a relatively weak correlation between burnout and job performance through this compensatory process.

Demerouti et al. (2014) undertook a study to investigate the association between burnout in employment and two different job performance dimensions: adaptively to organizational change and task performance. Task performance focuses on individual performance, instrumentality to achieve organizational goals, whereas adaptively is characterized by taking a positive attitude towards organizational change or the display of behaviors that are needed for a change to become successful. Subsequently, there are two explanations that can help understand the reasons why, while in this instance, burnout is likely to result in a decrease in job performance. The demands that are found in the workplace create a reduction in the capacity of any individual to actively manipulate the working environment around them, which creates adverse effects upon their capacity to function effectively. Therefore, burnout, particularly exhaustion, is likely to mediate the association between stressors and performance, due to the depletion of an individual's energy resource (Taris, 2006).

The second likely explanation involves the concept of fatigue, which is the inability and unwillingness to expend effort, and its representation of effort intolerance. Fatigue has both motivational (depersonalization) and energy (exhaustion) components. The focus of this explanation helps determine that the negative impact on performance is due to both energy resource depletion and unwillingness, on the part of the individual, to perform. The manifestations of this include withdrawal at a psychological level that relates to increased resistance towards effort in the future, functioning as a procedure to protect against full

depletion of individual resources. This dynamic is evident in the link between burnout and workplace injuries and enthusiasm of staff for organizational change (Demerouti et al. 2014). Workers experiencing burnout are unwilling and/or unable to expend effort resulting in suboptimal functioning (Demerouti et al. 2014).

Burnout globally

There were other studies from all countries examined as a precursor to this study, and they were split into geographical categories: Asia, Europe, Africa, North America, South America, Australia and New Zealand. In this section of the chapter, some of the research carried out in these countries and regions is highlighted.

A study conducted in Iran by Ashtari et al. (2009) demonstrated over 45% of psychiatric nurses suffered from high burnout levels linked to being unable to perform their professional role adequately. Similar findings were also highlighted in Xie et al.'s (2011) study with 527 nurses working in Shanghai demonstrating a high degree of EE, but the same nurses cited low levels of depersonalization and personal accomplishment. Two further studies undertaken in China highlighted contrasting burnout levels, with Dong-mian et al.'s (2010) study confirming a 65% burnout level among 149 nurses, while Lin et al.'s (2009) study observed moderate levels of burnout amongst nurses in a Beijing hospital (EE=22.75, DP=4.17, PA=33.90). In Korea, Lee et al.'s study (2003) also confirmed high burnout levels (50%) amongst nurses, when compared to countries such as Germany, Canada, the United Kingdom and the United States of America. A high burnout rate (59.2%) was also prevalent in Japan among psychiatric nurses as confirmed in Imai et al.'s study (2004). A second Japanese study confirmed high levels of job dissatisfaction (60%), with 35% of participants likely to leave their role within 18 months (Kanai Pak, 2008). Finally, in a study of Malaysian nurses by Yunus et al. (2009), 40% of nurses reported burnout levels in excess of acceptable health care norms, whilst a study in the Philippines (Lu, J 2008), conducted in the country's largest hospital, confirmed organizational role stressors as the primary cause of burnout.

In Europe, two Turkish studies confirmed burnout levels of 45.3% (Kalemoglu & Keskin, 2002) among emergency nurses, and 14.5% for general nurses (Önder & Basim, 2008) respectively. Studies in Greece confirmed high levels of EE for orthopedic nurses (38.3%) (Kiekkas et al., 2010) and 45.3% for general nurses (Malliarou et al., 2008). Günüsen and Üstün (2009) explored the perceptions of nurses from Turkey in regards to burnout and

what they believed were the facilitators and barriers that could affect burnout reduction program attendance. As a result, the study found that nurses perceived a lack of recognition of their role and heavy workload to be the main contributors to burnout. Most of the nurses mentioned that they required work-directed and not person-directed interventions for burnout and stress reduction. Being optimistic and problem-focused coping strategies have been linked to negative effects on burnout, whereas emotion-focused coping has generally been shown to have a positive effect. Consequently, some authors have recommended the provision of '*coping training*' for nurses to reduce or prevent burnout (Pinikahana et al. 2004).

In their study, Pinika et al. (2004) emphasized the need to define nurses' stressors and the need to improve their coping skills. Even though social support and coping training have been acknowledged as being useful in burnout reduction, there is still a need to determine their effectiveness. In this regard, an RCT was conducted in order to show how support groups have an effect upon coping interventions that reduce burnout among nurses at a university hospital in Izmir, Turkey (Günüsen & Üstün, 2010). Their study revealed that the intervention was associated with an immediate reduction in emotional exhaustion. Nonetheless, the emotional exhaustion scores increased again after six months. They concluded that person-directed interventions could help decrease the levels of emotional exhaustion, but there is a need for repetitive interventions for sustained effects to be realized. Even though burnout programs have been implemented in some settings, factors such as negative staff attitudes and lack of institutional support have been shown to impede the attendance on these programs (Günüsen & Üstün, 2009).

The reason for burnout cited among Greek nurses were poor working relations with physicians, difficulties in meeting patient care needs, low work satisfaction and environmental factors (Kiekkas et al., 2010; Malliarou et al., 2008). Similar findings emerged in Italian studies, with burnout rates around 37.1% for specialist oncology nurses (Ostacoli et al., 2010), and 35% for oncology nurses (Quattrin et al., 2006). Factors cited in Italy for burnout were linked to stress, lack of organization (Quattrin et al., 2006), and cynicism surrounding the leaders and the organization (Bobbio et al., 2012). In the UK, mental health nurses reported high levels of EE (36%) as did their colleagues in Wales (Edwards et al., 2006). The manifestation of burnout in the UK was linked to increased sick leave and nurses looking to leave their role (Sherring & Knight, 2009). Other factors cited were staff shortages, stress, increased burnout rates, and reduced job satisfaction (Sheward et al., 2005). Rafferty et al.'s (2007) study highlighted nurses working in

hospitals with high mortality rates were 200% more likely to report job dissatisfaction. Studies in Poland (Książek et al., 2011) indicated that whilst burnout levels were relatively low compared to other European countries, rates were higher among oncology nurses (26.3%) over surgical nurses (24.46%). Reasons for burnout included high workload, emotional issues, physical obligations, the work environment, and insufficient incentivisation, despite a low desire to leave the role (Ogińska -Bulik, 2006; Estryn-Behar et al., 2007). The high rate of burnout (48.6%) was also reflected among Finnish nurses (Koivula et al., 2000). Nurses in Spain subjected to high psychological demands, low job control, and social support (Escribà -Aguir et al., 2006) reported high burnout levels which were linked to suicidal risk, anxiety, depression and low self-esteem (Tomás -Sabado et al., 2010). Gombor's (2009) study compared nurses in Hungary and Sweden, with the former experiencing significantly higher levels of burnout and stress. High burnout levels among Lithuanian nurses was largely attributed to the work environment (Vimantaite & Seskevicius, 2005; Raiziene & Endriulaitiene, 2006).

Looking at some of the studies in Africa, Thorsen et al (2011) observed high burnout rates among nurses (72%) in a hospital for obstetrics and gynaecology, with McAuliffe et al. (2009) reporting a burnout rate of 31% among mid-level care providers. In Zambia, nurses confirmed mid to high levels of EE (62%) in one study, although this did not affect other aspects of burnout such as depersonalization or personal accomplishment (Dieleman et al., 2007). A Kenyan study (Ndetei et al., 2008) cited EE levels of 38% among nurses, with the authors reporting that 59% of staff had taken time off work in the last twelve months with symptoms consistent with the signs of burnout. In Nigeria, burnout levels of 39.1% were reported among general nurses (Lasebikan & Oyetunde, 2012).

In North America, US burnout levels of 19.8% were reported among travel nurses (Faller et al, 2011), 40% among nurses in city hospitals (Vahey et al, 2004), 73% among trauma nurses (Mealer et al., 2009), 82% among emergency nurses (Hooper et al., 2010), and 38.4% in direct care hospital nurses (Erickson & Grove, 2007). Finally, a study by Vahey et al. (2004) confirmed that 20% of nurses were looking to leave their role within the next twelve months. In Canada, burnout rates of 22.5% were reported among general hospital nurses (Poghosyan et al, 2010), 47.3% among staff nurses (Spence et al., 2009), 66% among new graduate nurses (Cho J, et al., 2006), and 58% among nursing managers (Laschinger et al., 2004). Marjanovic et al.'s (2007) study cited energy levels and perceptions of support as factors linked to burnout.

Looking at South America, burnout rates among general nurses in Brazil was the highest at 35.7% (Moreira et al., 2009), with the lowest rate reported among emergency nurses (8.2%) (Jodas & Haddad, 2009). In Mexico, the highest burnout rate was among neonatal nurses at 40% (Silvia et al., 2005). Factors affecting burnout were cited as the level of commitment (Tapia-Hernandez et al., 2009), and losing interest in work and general exhaustion (Silvia et al., 2005). Factors that contributed to burnout in Columbia were reported as depersonalization and EE (Tuesca Molina et al., 2006).

In Australia, low levels of EE were reported among psychiatric nurses in rural areas like Victoria (Pinikahana & Happell, 2004), with high levels reported among oncology nurses with direct patient contact (Girgis et al., 2009). Likely factors linked to burnout were increased hours of patient contact (Girgis et al., 2009), employment insecurity, issues with management, problems with the nature of the work, inadequate resources and services (Taylor & Barling, 2004), and job dissatisfaction (Happell et al., 2003). Finally, in New Zealand, levels of EE were reported at 22.2% (Poghosyan et al., 2010), and were linked to reductions in job satisfaction and stress (Daniels, 2004; Kalliath & Morris, 2002), and limited supervisory support (Kalliath & Beck, 2001).

Burnout among Mental Health Nurses

Nurses working in mental health facilities are faced with various problems on a daily basis, which can be challenging to cope with as a professional, as decreasing patient anxiety and meeting patient expectations are all necessary parts of the care process (Cleary et al., 2005). Hence, the stress from these factors can often unsettle nursing staff and prove detrimental to the quality of care they deliver. It was stated by professionals working in mental health units that patients suffering from mental illness would become increasingly more demanding, as their behavior became more acutely disturbed (Rey et al., 2004). Moreover, even though care in mental health units is provided through a collaborative effort by a mental health team, it is provided largely by nurses, placing the majority of stress on them (Cleary et al., 2005).

It has been stated that, although nurses working in mental health continuously try to create a safe environment, they unfortunately fail to provide adequate therapeutic care, due to demanding patients and a lack of resources (O'Brien & Cole, 2003). Consequently, these factors actively increase the physical and psychological effects associated with not being able to meet the requirements of the job, regardless of them being real or perceived,

creating symptoms of burnout and resulting in practice of poorer quality. Likewise, a study conducted in Jordan exploring factors contributing to burnout, identified that nurses working in mental health facilities had elevated levels of EE and depersonalization and a failure to recognize personal accomplishments (Hamaideh, 2011).

High levels of stress and burnout are common among nursing professionals (Edwards et al., 2000; Humpel et al., 2001; Richards et al., 2006; Shen et al., 2005; Shimizu et al., 2003). Lazarus and Folkman (1984) used their model of stress to highlight stress being acutely experienced when an individual perceives their job to be increasingly challenging and when they believe it impossible to cope with the professional demands. A study conducted in Jordan examined the experiences of nurses working in mental health care units, the stress they experienced caused by work, as well as the support they received. Findings suggest moderate levels of stress were produced due to a distinct lack of resources and conflicts with colleagues (Hamdan-Mansour et al., 2011). Moreover, mental health nurses reported low levels of support from their supervisors. The results of the study implied that mental health nurses are typically vulnerable to physical, psychological and institutional problems that may impact on their wellbeing, which is reinforced by the findings of Doyle et al. (2007) in which nurses have felt undervalued and demotivated by the lack of training opportunities.

Summary

In summary, although few studies have been found related to burnout among nurses in mental health settings in Saudi Arabia, those that have been done, have demonstrated that the instances of burnout among nurses working in Saudi Arabia is relatively high. Reviewing the literature has revealed a number of issues that contribute to burnout among nurses, and mental health nurses in particular. These factors might be personal, social and/or organizational. Generally, previous studies have identified workload, turnover, job satisfaction, work performance, and working conditions as main factors that influence burnout levels among nurses. In particular, organizational climate and structure, achieving a balance of the home/work interface, interpersonal relationships, managerial role, and the job itself were identified as sources of work-related stressors that are associated with burnout among nurses working in mental health care settings in SA. However, the literature has also emphasized the role of mediating factors that can be utilized to buffer the negative effect of these factors among nurses. These factors can be employed to reduce

burnout among mental health nurses working in mental health care settings in Saudi Arabia.

The high prevalence of burnout among nurses working in SA, and identified factors associated with it, highlights the need to develop a restorative intervention program and/or other initiatives to reduce burnout. However, most of the studies on burnout that have been conducted in Saudi Arabia have primarily focused on determining the prevalence of this problem while neglecting the challenge of trying to prevent or develop intervention strategies to reduce it. Thus, there is a need to utilize theoretical and clinical-based models of intervention to reduce burnout among nurses working in mental health care settings in Saudi Arabia. Such interventions could counteract the influence of burnout among nurses and contribute to improving the quality of care provided by nurses, as well as increasing job satisfaction and decreasing turnover. The literature has signified the need for such a program globally and across all practice areas of nursing.

To date, there are few studies addressing burnout prevention and reduction, with none to date being published in KSA, in the next chapter literature pertaining to existing burnout prevention programs will be critically reviewed in order to provide an understanding of the burnout prevention program used in this study.

CHAPTER FOUR: Literature Review: Re Programmes to Reduce Burnout Among Nurses

Introduction

This chapter presents a review of existing literature pertinent to this research study. Accordingly, it is important for burnout prevention and reduction programme to be reviewed, analyzed and understood in relation to how they have been developed and delivered and what impacted they have had on nurses in their personal and professional lives. To proceed with an in-depth analysis of the available research focusing on burnout prevention programme, and particularly those used with nurses providing mental health care, a search of the relevant databases was conducted in order to ascertain existing research in keeping with this study.

Literature Search Strategy

In order to review the relevant literature for the study, a systematic approach was utilized. A systematic approach is deemed a more than adequate strategy to start the process of answering initial research questions (Polit & Beck, 2012). To initiate a search of the literature, it was necessary to propose definitive search terms to aid the overall remit of the literature search. The terms used included 'burnout,' or stress 'psychiatry,' 'mental health,' 'mental health nursing,' 'psychiatric nursing,' 'mental health nurses,' and 'psychiatric nurses,' 'Saudi Arabia', 'prevention' and 'reduction'. Electronic databases that were actively used to aid the literature search for relevant research articles included Medline/Pubmed, PsycINFO, British Nursing Index, ProQuest, Elsevier, EBSCOhost, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Plus and Google Scholar. Moreover, medical subject headings (MeSH), descriptors or appropriate permutations were utilized in order to index the full content that was obtained from the databases. Meanwhile, the Boolean operators 'AND' and 'OR' were used as functioning connectors, enabling the combining of the various search terms in order to help narrow the search to its more specific relevance for the current study. Firstly, using the term 'AND' ensures that different and diverse articles that include the combined search terms are retrieved, whereas using the term 'OR' in the procedure ensures that the retrieval of articles occurs with one or more of the search terms being used. Throughout the implementation of this strategy, extreme care was taken to continuously increase the specificity and sensitivity of the relevant searches. As a consequence, with the aid of these particular Boolean

operators, the utilized search terms were duly combined in the following ways: burnout or stress AND psychiatry OR mental health and reduce or prevention; burnout AND psychiatric nursing OR mental health nursing; and burnout AND psychiatric health nurses OR mental health nurses in Saudi Arabia (See table 3)

Table 3. Boolean table showing keywords used for search

List of search terms:				
Burnout	AND	Psychiatr*	OR	Mental*
stress		Nurs*		Health*
		Prevent*		Nurs*
		Reduc*		Prevent*
				Reduc*

Inclusion and Exclusion Criteria

In order to ensure a more focused search inclusion criteria was established. This included articles that were published in the English language, as well as research studies that related specifically to the concept and idea of burnout and its prevention and/or reduction. Moreover, the studies that were reviewed focused on nurses, as a number of relevant articles focused on nurses per se working in general and/or mental health units, often comparing one with the other. The inclusion criteria also included articles that were originally published between 2000 up to the present in order to ensure that only current evidence was explored, as burnout is contextual and has to be considered in a modern working environment. In addition, another aspect of the inclusion criteria involved gathering studies which were published in Arab countries in the English language, but which were not available electronically. This was done by extracting data from the Saudi Digital Library, which covers the major libraries of Saudi Arabia.

Conversely, the exclusion criteria that was structured into the search dynamics included different studies that were viewed as not relevant to the terminology and understanding of burnout, studies that had been published in different languages other than English, and studies that had been published prior to the year 2000 (See Table 4). All studies, qualitative, quantitative, mixed methods, and systematic reviews, were included in the search strategy.

Table 4. Summary of Literature Search Based on Inclusion Criteria

Databases Searched	Inclusion Criteria	Exclusion Criteria	Number of studies
Medline/Pubmed	Publications in the English language.	Publications in different languages other than English.	25
PsycINFO			11
Google Scholar	Published between the years 2000 and 2015.	Publications that were made before the year 2000.	27
British Nursing Index			5
ProQuest	Specific relevance to the study's research question.	Editorials, commentaries and discussion papers	17
Elsevier			21
EBSCOhost	Any study design was analyzed: qualitative, quantitative, mixed methods, systematic reviews		7
(CINAHL) Plus.			26
			Total 139

In total, 139 articles appeared to be relevant. However, after reading all the abstracts 56 were disregarded, 54 were duplicated, and 13 were not research articles, leaving a total of 13 relevant articles for review. However, only 2 papers were found specifically relating to mental health nurses and for this reason it was decided to include articles reporting on other groups of nurses. The 12 most relevant articles that were found during the search process and selected for review in the current study are summarized below. No studies were found that had been conducted in Saudi Arabia. Of these 13 studies, nine were quantitative, one was qualitative, and two were mixed methods, and one was a systematic review. (See appendix A).

Critical Appraisal of the Studies

The completion of a critical appraisal of studies entails the provision of a balanced review of the available research articles, which helps to identify both the strengths and weaknesses of the specified studies in order to determine their own particular relevance for the topic under investigation (Taylor et al., 2004). The Critical Appraisal Skills Program (CASP) framework was used to guide the critical appraisal of the 12 articles identified. The components of CASP are considered intrinsically relevant to the current review, enabling the basic criteria for the evaluation of source information, namely: authority, accuracy, objectivity, coverage and currency (See Appendix B).

The CASP framework has been chosen to conduct a critical appraisal of the literature, as it provides a structure that can be utilized to critique various study designs, which include cohort studies, randomized controlled trials (RCTs), and cross-sectional studies, as well as qualitative studies simultaneously (Abalos et al., 2001). Hence, due to the fact that the current literature review involved the retrieval of many studies with various methodological designs, the CASP framework served as a beneficial tool in the process of accomplishing this intended purpose. The CASP framework provides formulated questions that help researchers make sense of the research which they are investigating, although this is dependent on the specific design of the study in question (Abalos et al., 2001). In accordance, the CASP framework focuses on the validity of the study/results, together with the actual results, and whether the results may help locally, nationally and internationally (Abalos et al., 2001).

Review of papers

As previously stated, the demand for quality nursing care is an increasingly rising phenomenon in modern healthcare practice, despite an irregular ratio of patient and registered nurses in healthcare facilities. Medland et al. (2004) note that the percentage of registered nurses in the United States is increasingly decreasing, hence, increasing the workload on the available nurses. The work environment for the nurses becomes extremely challenging especially when working in understaffed facilities where they have to work for several hours, stretching their mental and physical energies which often results in burnout (Medland et al., 2004). Ullah, et al. (2010) describe burnout as a work-related stress syndrome that develops gradually when the affected persons are continuously exposed to stress factors in their workplaces. Consequently, many experts and scholars have

undertaken various research studies to identify interventions that can mitigate the effects of burnout in the healthcare sector (Ewers et al., 2002; Kravits et al., 2010). Several research studies have been undertaken with different outcomes. Some of the findings of the research studies have affirmed each other, while others have presented apposite views. The critique of each of the journal articles examined in this thesis regard burnout as a construct of three dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA). The abbreviations of these dimensions will recur throughout the critique to save time and space. Thus, this thesis reviews previous literature on programs that can help reduce burnout among nurses as an intervention to help improve their working conditions and service delivery.

Ewers, P., Bradshaw, T., McGovern, J., & Ewers, B. (2002). Does training in psychosocial interventions reduce burnout rates in forensic nurses? *Issues and Innovations in Nursing Education*, 37(5), 470-476.

Ewers et al (2002) investigated the effects of psychosocial intervention (PSI) training in reducing burnout rates, and improving the knowledge and attitude of forensic mental health nurses. The aim of the study was to evaluate whether PSI Training (PSI) would have an impact on forensic mental health nurses' knowledge of and attitudes towards psychotic illnesses, and whether this knowledge would reduce levels of clinical burnout. Their study included 20 nurse participants in a quasi-experimental pretest/post-test design that comprised of 20 days of training followed by an evaluation period of up to six months. The study utilised a 30 item multi-choice questionnaire to measure the nurses' knowledge; a measurement scale to assess attitudes, and the Maslach Burnout Inventory to measure levels of burnout. Their overall finding suggests forensic mental health nurses who engaged in the training tended to develop positivity in their provision of care to patients.

The theory behind the research is that PSIs would help the nurses to better understand and therefore empathise with patients, as well as improving their skills, and therefore reduce burnout due to increasing their self-efficacy and reducing their level of stress. A major strength of the study is that it was implemented on a local scale, whereas courses are usually run in higher education settings, which reduces the number of places available and/or presents potential attendees with travel difficulties. However, the results may have been affected by the nature of the small sample, which was made up of volunteers, as staff that are willing to volunteer may be more enthusiastic and accepting of new knowledge.

The study has implications for practice within mental healthcare, as the training had a positive impact, although Ewers et al. (2002) acknowledged further large-scale studies are required in order to confirm these findings.

The literature review in the study comprehensively defines burnout and its relevancy to the overall effectiveness of individual nurses and their attitudes towards providing quality care to patients. However, it has failed to compare the effectiveness of the PSI model against other models in the nursing discipline that could potentially mitigate burnout. In fact, no mention is made of other approaches that could be used in the mitigation of burnout. The research also lacks a theoretical framework for linking the factors of knowledge, attitude and burnout, as items requiring PSI. The participants were randomised to either the experimental PSI training group or a waiting list control group. This design was intended to eliminate bias, but it may have been compromised due to the propensity of volunteer participants being amenable to positive change.

Regarding researcher bias, the course was organised by one of the authors of the paper as they had received advanced training in in PSIs, also the attitude scale was designed by the same author. This may have created bias by encouraging certain answers to be given and a positive response if nurses were aware that they had designed the course themselves. On the other hand, the nurses' knowledge was assessed using a measure with questions written by leading experts and had been used in other high-level studies. In addition, burnout was assessed using the well-known Maslach Burnout Inventory. It may have been better to examine one criterion rather than three, or to utilise measurements with the same level of reliability that had been previously proven effective. In addition, the article is not comprehensive in discussing the data analyses that were used to overcome the potential for bias. A small sample size of 20 participants in the intervention can hardly be generalisable to the general population, as pointed out in the article, making the research useful for reference purposes only, or as the basis for further research studies. Further studies could also include an evaluation of the course and the attitude scale designed and used in this study. The study is well referenced and draws on 27 other authored works. Maslach in particular is drawn on as the author in several of the referenced works, as well as the Maslach Burnout Inventory being used.

Bittman, B., Bruhn, K. T., Stevens, C., Westengard, J., & Umbach, P. O. (2003). Recreational Music-Making: A Cost-Effective Group Interdisciplinary Strategy for Reducing Burnout and Improving Mood States in Long-Term Care Workers. *ADVANCES*, 19(3/4), 4-15.

This research study aimed to assess the impact of six sessions of recreational music making (RMM) on reducing levels of burnout, mood dimensions, and Total Mood Disturbance (TMD) among long-term care workers. It also measured the subsequent savings that could be realised in monetary terms. The study was inspired by the need to contain the high turnover rates of nurses in healthcare facilities due to the inability to cope with stress and burnout. Annual turnover rates for healthcare workers ranged from 40% to 100%, and there was a critical shortage of nurses. Each of the researchers involved has a particular expertise: a neurologist; a retired musician and music industry executive; a music therapist, a statistician, and a healthcare CEO.

The researchers utilised a controlled, prospective, randomised study that incorporated 112 mainly female participants randomly selected from various departments at Wesbury United Methodist Retirement Community (WUMRC) facility. The hypothesis of the authors was very clear: confirm whether RMM reduces burnouts and total mood disorders among long-term care workers. The literature review of the article is broad and in-depth, informing the reader of the possibility of RMM in combating burnout. However, the study did not address the viability and sustainability of RMM. Statistical analysis was carried out to test the effect of the RMM protocol using Gaussian distribution, and the data was standardised by converting to Z-scores. Clarity has been applied to the researchers' explanation of the methods used for the protocol of the experiment and the statistical analysis.

The research involved 112 employees who were selected randomly by the WUMRC and then stratified according to shift patterns and representative roles. Included were 27 administrators and managers, although these only completed pre- and post-intervention inventories. The Maslach Burnout Inventory was used to assess burnout; the Profile of Mood States was used to assess mood, and an independent consulting firm calculated the cost savings. The RMM program involved is based upon Group Empowerment Drumming, along with a Clavinova keyboard accompaniment and a set of wellbeing exercises. The authors explain that attempts were made to make the setting relaxed.

The authors have justified the nature of the results obtained from the research and have acknowledged the weaknesses of the methodologies that they used. However, it is difficult for anyone to replicate the experiment due to the heterogeneity of the various participants and their wide-ranging roles, and novel approaches would be required to tackle the discrepancies brought about by the inclusion of non-nursing staff. A further issue with replication is that the intervention did not only include music making, but also required the participants to express themselves in response to a set of 12 questions, and each session ended with a Mind-Body Wellness Clavinova exercise. This combination of approaches makes it difficult to differentiate which one had the greatest impact.

There are issues around bias and ethics, as the employees were told it was an enrichment activity rather than part of research. This was to minimise expectation effects. In addition, the sessions were made mandatory in order to prevent self-selection bias. However, deceiving participants in this way is unethical. In addition, participants who do not have a musical background may have felt uncomfortable with drumming and being asked to express themselves while doing so; the mandatory nature of the sessions may have coerced them into doing so. General ethical guidelines were followed with regard to confidentiality, as participants were assigned personal codes rather than their names being used. The results reveal statistically significant reductions in burnout and mood dimensions, and economic cost savings were projected to be \$89,100 for a single typical 100-bed facility. These are major savings; however, while the sample size included 112 participants, these were made up of small groups of employees from different areas, for example three physical/occupational therapists, eight dietary workers, and seven maintenance workers. Therefore, despite the major claims of the researchers, further research should be conducted, including assessing how comfortable employees are with such an approach, and for specific groups of healthcare workers separately.

Gunusen, N. P., & Ustun, B. (2010). An RCT of coping and support groups to reduce burnout among nurses. *International Nursing Review*, 57(4), 485-492.

Gunusen and Ustun (2010) conducted a randomised controlled trial intervention study at a University hospital in Izmir, Turkey. A total of 108 nurses met the selection criteria and agreed to participate. The level of burnout was measured using the Maslach Burnout Inventory before and after the intervention, and six months later. The aim was to investigate the role of coping and support groups in reducing burnout among nurses. They focused the intervention program on emotion-focused coping, rather than the problem-

focused coping intervention used by other researchers (Gunusen and Ustun 2010). A thorough conceptualisation of the theoretical and empirical framework used is presented. They have linked Neuman's concept of psychological and sociocultural variables in lines of resistance to core responses to theoretical linkages concerning coping skills, social support, and burnout in explaining the empirical indicators of their intervention. Their rationale for the choice of intervention is thorough and incorporates appropriate theoretical models. The hypotheses on EE, DP, and PA are comprehensive and time-sensitive.

The study design consisted of two experimental groups (a coping group and support group) with 36 participants allocated to each, and 36 participants in the control group. However, only 28 participants from each intervention group attended all of the sessions. They premised their selection criteria on the scores of the participants for EE. The power calculation was based on an alpha of 0.05 and power of 0.80, and this is well explained. The selection of the sample followed a seven week programme to reduce burnout, after which nurses were asked to complete the Maslach Burnout Inventory. Out of the nurses that completed the questionnaire, those who scored higher than the median for emotional exhaustion were asked to participate in the study, as this is characteristic of those with burnout. The study clearly explains how emotional exhaustion can lead to problems such as a reduction in personal accomplishments, and that it is the first stage of burnout; therefore the rationale for focusing on this factor is well substantiated.

The comprehensiveness with which the methodology is explained should allow other researchers to replicate their study design. A demographic questionnaire on factors that can affect burnout enabled the researchers to control for outside influences. The statistical analyses incorporated chi-square tests to determine similarities between the groups after randomisation. The results indicate no significant differences in emotional exhaustion (EE) between the groups occurred, and there were also no significant differences in depersonalisation (DP) with respect to time. There were no significant differences between the groups in the personal accomplishment (PA) with respect to time. However, the researchers acknowledged a decrease in the EE scores with respect to time, and an increase in the EE scores after six months. They have attributed this trend to the short-term effectiveness of their intervention. The explanation of the possible causes of the rise in EE scores six months after their intervention is comprehensive. They cite the short-term effectiveness of person-directed interventions; changes in the host hospital as well as an inspection, which increased the stressors and the workload of the participants in the

intervention arm of the study. The authors believed this also limited the effectiveness of the intervention on psychological and socio-cultural dimensions.

A major limitation of the study is that the researchers and participants were not blinded, and the effectiveness of the interventions may be seen to be subjective. However, the forms of intervention have been well researched, and the literature reference list is extensive and includes both English and Turkish papers. Ethical approval to carry out the study was obtained from the Ethical Committee of the Health Sciences Institute and Nursing Administration of the hospital, and the participants were provided with a written explanation including details about assumed consent if they completed the questionnaires and submitted them. This ethical procedure could have been made stronger by requiring participants to sign a consent form; also, writing their names on the questionnaires gives rise to concerns over anonymity. It would be beneficial to carry out the study again under normal hospital conditions, without the pressure of major changes and an inspection, as this would have increased the nurses' stress levels.

Isaksson Rø, K. E., Gude, T., Tyssen, R., & Aasland, O. G. (2010). A self-referral preventive intervention for burnout among Norwegian nurses: One-year follow-up study. *Patient Education and Counseling*, 78, 191-197.

Isaksson Rø et al (2010) investigated a self-referral preventive intervention for burnout among Norwegian nurses. The aim was to investigate the reasons for seeking help among nurses, the reduction in levels of burnout from baseline to one-year follow-up, and the factors that predict and influence reduction in burnout. The factors include life events, seeking treatment, conflict at work, sick leave, and reducing work hours (Isaksson Rø et al., 2010). In total 172 nurses participated, but 160 (155 women and 5 men) completed the one-year follow-up. The results suggest that a short-term preventive intervention may help to reduce emotional exhaustion in nurses, as well as work-related conflict and levels of sick leave.

The rationale behind the study was to lower turnover rates and maintain performance by reducing levels of burnout. The literature included in the introduction thoroughly substantiates this rationale and flags up a range of important issues, such as nurses having to take on additional responsibilities, which are not part of their role. There is a detailed description of the methodology used, data analysis, and representation. The course model is based on cognitive theory, and included approaches such as mindfulness, relaxation

exercises, various motivating lectures, and the sharing of personal experiences. Two experienced specialists in psychiatric nursing led the courses, which were held over five days at a villa, which the Norwegian Nurses Association paid for.

For the results, T-tests were used to assess normally distributed variables, while Wilcoxon's rank test assessed abnormal distributed variables. McNemar's test investigated differences in proportion, while linear regression was used to test the prediction of a reduction in MBI-emotional exhaustion. These explanations help the reader to understand the relevance of the different analyses and their influence on data reliability. An important finding of this research study concerns the significant influence of life events and conflict at work in determining the capacity of nurses to reduce their EE levels. This suggests that a short-term preventive intervention could contribute towards the reduction of emotional exhaustion in nurses, as it is apparent that life events outside the work setting had a big influence on their emotional self. Consequently, the findings of the study emphasise the importance of psychotherapy that addresses non-professional life events, as a complement to work-related interventions, to reduce EE. The study's longitudinal design and the high proportion of participants still involved at follow-up (93%) strengthen the internal reliability of the results.

The study was approved by the Data Inspectorate through the Norwegian Social Science Data Services, and the Regional Ethical Research Committee in the South of Norway did not require special consent for the study. Nurses were required to sign informed written consent forms, and as the course took place in a non-medical setting, confidentiality was emphasised to the participants. The paper also states that any identifiers have been removed to make it impossible to identify who the participants are. Therefore, ethical procedures have been meticulously followed. There are a few minor limitations to this study, for example, as the study is longitudinal, it is not entirely clear whether external causes had an impact on the results. More importantly, further studies should be carried out that include a control group to form a comparison to those undertaking the intervention. This research has implications for practice as a major finding was that burnout continued to be reduced a year after the preventive intervention, which is a positive outcome. In addition, it suggests that programs for preventing or handling conflicts at work should be introduced, as the study shows that this has a detrimental impact and increases levels of burnout.

Kravits, K., McAllister-Black, R., Grant, M., & Kirk, C. (2010). Self-care strategies for nurses: A psycho-educational intervention for stress reduction and the prevention of burnout. *Applied Nursing Research*, 23, 130-138.

The research by Kravits et al (2010) focuses on expanding positive coping options as a strategy for promoting resilience. The researchers used art therapy, relaxation training, and wellness plans as interventions to reduce burnout rates. The 248 participants in the sample were divided between new graduate nurses and experienced nurses. A major strength of the research is the way in which they developed an understandable conceptual framework of stress and coping adapted from Folkman and Greer (2000) and Prochaska and Norcross (2001). Consequently, they were able to develop clear aims and hypotheses. Their research design used a single psycho-educational intervention to teach positive self-care behaviors to nurses.

The first hypothesis was that the programme would reduce EE and feelings of DP, and enhance PA. The second hypothesis was that increased levels of burnout occur more among nurses new to oncology than experienced oncology nurses. The intervention is described in detail, the researchers using multiple strategies to reduce burnout. It was a six hour programme that took place twice a month in a classroom setting with participants being taught about relaxation and guided imagery; art exploration of coping strategies, and the writing of their own personalised wellbeing plan. The sample was made up of new graduates from a comprehensive cancer centre, and staff nurses from the centre along with nurses from surrounding community organisations. The new graduates were offered the intervention during their orientation, and the staff nurses were recruited via flyers posted to their homes. The number of participants was 248- 51% new graduates and nurses new to oncology, and 49% were experienced nurses. Maslach's MBI-HSS was used to assess three components of burnout syndrome: EE, DP, and PA, which is an established quantitative measurement tool with 22 items scaled zero to six.

An issue with the results is that there is some missing demographic data, which could have implications for the findings. The authors stated that this may have been because participants were concerned with ensuring their anonymity. This suggests that more reassurance should have been given to participants concerning anonymity. However, the risks and benefits of taking part were explained to the participants, and it was explained that participation was strictly voluntary and confidential; moreover, their consent was

obtained by the project director, an RN, and the research assistant after the primary and co-investigators left the room to protect the anonymity of the participants. All instruments and materials were blind coded using an alphanumeric code to protect participant anonymity. The participants were told to only answer questions they were comfortable with, and so this may have influenced the missing demographic data.

Although the findings of the research study affirm other studies on burnout interventions, the intervention used is time consuming and resource intensive. The intervention would require healthcare facilities to invest a lot in intervention programs and dedicate much time to the alleviation of stress and burnout evident in their staff. Moreover, the methodology is not likely to be embraced by many participants due to the intensiveness required in the art session, which lasted for six hours. Another weakness of the research study is in the mixing of new graduate nurses and staff nurses during the intervention. The new graduates tended to report different experiences of stress and burnouts to the ones reported by the staff nurses. Therefore, future research, or the implementation of such interventions in practice, should consider whether to mix the types of staff members or not. Even so, participants were asked to evaluate the course and the feedback was positive, suggesting the usefulness of this sort of intervention in practice.

Le Blanc, P. M., Hox, J. J., Schaufeli, W. B., Taris, T. W., & Peeters, M. C. (2007). Take Care! The Evaluation of a Team-Based Burnout Intervention Program for Oncology Care Providers. *Journal of Applied Psychology*, 92(1), 213-227.

Le Blanc et al (2007) conducted a quasi-experimental study involving 664 participants (nurses, physicians, and radiotherapy assistants) to evaluate a team-based burnout intervention program for oncology care providers, across 29 wards spanning 18 hospitals located in various parts of the Netherlands

The focus of the literature review is oncology nurses, and it discusses various factors such as depersonalisation, and strategies such as staff support groups. It addresses key points from the literature on stress management interventions, and explains which theories influenced the decision to include social support, job control, and participation in decision making. The comprehensiveness of the paper provides in-depth information on the variables, objectives, design, and analysis of their intervention study. Their hypotheses are based on pilot in-depth interviews carried out with 20 oncology care providers, which gives weight to the intervention. The first hypothesis sought to establish the effects of the

intervention program on their levels of burnout, while the other two hypotheses sought to establish the relationship between the individual-level factors and the presumed group-level factors that led to a reduction in burnout levels. Participants were made up of physicians, nurses, and radiotherapy assistants providing direct care for oncology patients. The wards were chosen on the basis of staff members being considered to be a functional team with only one or two supervisors, which strengthened the sampling strategy.

The review of the literature shows that quantitative demands (i.e., workload) and patient-related emotional demands are important determiners of burnout. The variables in the study include burnout, social support, participation in decision-making, job control, and job demands. The authors clearly explain what, how, and why they used certain variables and statistical analyses in their study. The methodology of the study ensures data reliability due to the large sample size, long duration of the study, high-level of discretion in information revelation, and the homogeneity of the roles and duties of the participants involved in the intervention. The training programme itself consisted of six, monthly sessions of 3 hours each, with wards working on their own context-specific problems, and receiving continuous feedback throughout the programme. Therefore, education was integral to the action.

The combination of measures is complex and included: two subscales of the Dutch version of the Maslach Burnout Inventory: Emotional Exhaustion and Depersonalization. Social support was measured by a set of items using two Likert scales on social support from colleagues (four items) and social support from the direct supervisor (four items). Levels of participation in decision making were assessed using an eight-item scale. Job control was measured using a four-item scale to assess items such as freedom to decide in how they organise their work. Job demands were divided into qualitative and quantitative demands, and also scored using a Likert scale. In addition, emotional job demands were measured using five different scales. While the use of these scales has provided in-depth results, it makes the study complex and difficult to assess which item exactly was affected by which aspect of the intervention. There was a high drop out rate in the experimental groups compared to the control group; however, the study is longitudinal, and so some drop outs would usually be expected, and multilevel regression analysis was used to mitigate the impact of the drop-out rate.

The results of the study provide evidence for practice and show that a teambased, participatory approach to burnout interventions may assist in reducing levels of burnout, as

the care providers in the experimental group felt significantly less exhausted than those in the control group directly after the program and six months later. This finding is also supported by the literature presented in other papers reviewed in this thesis.

Mackenzie, C. S., Poulin, P. A., & Seidman-Carlson, R. (2006). A brief mindfulness-based stress reduction intervention for nurses and nurse aides. *Applied Nursing Research, 19*, 105–109.

The journal article by Mackenzie, Poulin, and Seidman-Carlson (2006) presents a new perspective on the types of interventions needed to address burnout in the nursing profession, including registered nurses, registered practical nurses and nurse aides. The sample size was small, as 16 participants took part in the mindfulness-based interventions, alongside a control group made up of 14 participants. This approach encourages the use of brief physical and mind-based exercises, based on cognitive theories, that can be performed by individual nurses at their convenience. The aim of the research study was to assess whether mindfulness-based stress reduction (MBSR) programs would (1) decrease burnout symptoms, (2) increase feelings of relaxation, (3) increase job satisfaction, and (4) improve one's ability to appreciate life, and (5) attain a better sense of coherence. Although mindfulness is growing in popularity generally, the authors fail to fully justify why its use within the context of reducing burnout compared to proven alternatives such as psychosocial interventions. However, the authors do state that the research is in part due to a "dearth" of research in this area.

The intervention is a shortened version of the traditional MBSR program, which draws on its main elements, and may be more convenient for incorporating into nurses' busy schedules. The questionnaires completed before and immediately after the four week training program were: Maslach Burnout Inventory; the Smith Relaxation Dispositions Inventory; the Intrinsic Job Satisfaction subscale from the Job Satisfaction Scale, the Satisfaction With Life Scale, and the 13-item version of the Orientation to Life Questionnaire. As these measurement tools have been tried and tested and their validity and reliability gives credence to the study. However, the small sample size and the heterogeneity of the participants limits the generalisability of the results to other workers and settings. In addition, the data was collected immediately and four weeks after the intervention, with no long-term impacts being recorded.

The analysis and explanation of the results obtained from the study is insufficient to inform a reader who wants to replicate the study. For example, the incorporation of repeated measures analyses of variance (ANOVAs) is not satisfactorily explained. Although the findings of the intervention study, confirm their hypotheses, the explanations of the results are too brief to instill confidence in the reader. Moreover, the research study is limited due to the relatively small sample size and the heterogeneity of the nursing roles of the participants. One cannot accurately decipher the different levels of effect of the MBSR program on the participants who worked in different capacities. Concerning ethical issues, there is no mention of permission or consent being obtained for the study, or information on participating in the study being given prior to the potential participants making a decision. This raises serious ethical issues, although the researchers may have done so, but neglected to mention it in the paper. The results of the study suggest that a short mindfulness training programme may be useful in practice to reduce symptoms of burnout and improve life satisfaction, although the results on job satisfaction are weak.

Medland, J., Howard-Ruben, J., & Whitaker, E. (2004). Fostering Psychosocial Wellness in Oncology Nurses: Addressing Burnout and Social Support in the Workplace. *Oncology Nursing Forum*, 31(1), 47-54.

This research focuses on psychosocial interventions in reducing burnout levels in nurses working in oncology. However, unlike Ewers et al. (2002) who used quantitative methodologies, Medland et al. (2004) used a qualitative design and literature review to conduct their study. Moreover, the researchers directed their attention towards interventions that have aided the retention of oncology nurses. The researchers are experts in the field, as Medland is director of Oncology Services at Northwestern Memorial Hospital in Chicago; Howard-Ruben is an oncology clinical nurse specialist at Northwestern Memorial Hospital, and Whitaker is a staff nurse at the inpatient hematology-oncology unit, Northwestern Memorial Hospital. Their experiences in oncology, may have enabled them to focus on the most important issues around wellness amongst oncology nurses.

The researchers undertook a comprehensive review of the literature on burnout, oncology nursing, and interventions. However, they fail to develop a conceptual framework that guides the reader in knowing their aims and/or research questions. There is mention of a Circle of Care Retreat, which 150 staff member participated in, but no definitive research methods were identified. The retreat involved a workshop and a variety of activities and

informal presentations, the exact details of which are not stated. Following the retreat, a Circle of Care Bereavement Council group, made up of alumni from the original retreat was set up to discuss the implementation of the many strategies generated by participants. While this may have encouraged longevity of coping strategies they are none the less subjective and might not apply to other nurses working in oncology. The authors recommend further research to address this issue and conduct a more robust evaluation.

The article by Medland et al. (2004) is extensive in its explanation of interventions mentioned in the literature for mitigating burnout, but lacks a simple structure that can guide the reader in establishing relationships. The article is suited for a literature review, rather than establishing the validity of hypotheses, but it may be used as a basis for future research and the testing of the retreat as an intervention.

Onan, N., Işıl, Ö., & Barlas, G. Ü. (2013). The Effect of a New Coping Intervention on Stress and Burnout in Turkish Oncology Nurses. Journal of Marmara University Institute of Health Sciences, 3(3), 121-130.

Onan et al. (2013) investigated the effect of a new coping intervention program on stress and burnout in Turkish Oncology nurses. This study was based on a PhD thesis, and the training was given by one of the authors of the article. In contrast to the other articles presented above, this research appeared to have a number of inconsistencies. For instance, the literature review seems to allude to the propensity of their study to compare the effects of problem-focused coping interventions on stress and the effects of emotion-focused coping interventions on stress. They suggest that problem-focused coping is more effective emotion-focused coping in stress mitigation. Their study employed a pre-test-post-test model with 35 nurses, out of which 30 nurses completed the intervention. Moreover, the lack of randomisation in selecting participants compromises the validity of their findings, as it was conducted with 30 nurses from units who were willing to participate. The authors hypothesised that the training would result in, (1) a significant reduction in the mean score for symptoms of stress; (2) a significant increase in the mean score for effective coping techniques and a significant reduction in the mean score for ineffective coping techniques; and (3) a significant reduction in the mean scores for burnout along with a significant increase in the mean score for the subscale of personal accomplishment. Before, immediately and four months after the training programme, participants completed a Stress Self-Assessment Checklist, Ways of Coping Inventory and Maslach's Burnout Inventory.

This gave the researchers baseline results prior to attendance, and enabled them to take longitudinal measures at four months to ascertain the longevity of the intervention. The data was evaluated in percentages and frequencies, and made use of Friedman test, Bonferroni correction and Wilcoxon signed-rank test. The results reveal that the training programme had a significant positive impact on oncology nurses' stress levels and burnout. However, to generalise the findings, with a larger cohort is needed.

Consent from the three institutions involved prior to the study, and in a section on ethical considerations, it states that consent was also obtained from the ethical committee. Participants were also provided with information on the reason for the study, and verbal consent was obtained prior to participation. The nurses were reassured regarding the confidentiality of their identity. Although ethical issues have been considered, these would have been strengthened by written consent from the participants, rather than only verbal consent.

Peterson, U., Bergstrom, G., Samuelsson, M., Asberg, M., & Ake, N. (2008). Reflecting peer-support groups in the prevention of stress and burnout: randomized controlled trial. *Journal of Advanced Nursing*, 63(5), 506-516.

This study involved a randomised control trial using self-reporting questionnaires. The study population included physicians, registered nurses, nursing assistants, social workers, occupational therapists, physiotherapists, psychologists, dental nurses and hygienists, dentists, service staff, administrators, teachers and technicians. The study took a thorough approach to sampling, as, initially, 3719 respondents (a 65% response rate) completed and returned the Oldenburg Burnout Inventory (OBI), out of whom 660 scored above the 75th percentile in the exhaustion dimension. These participants were invited to participate in the intervention. Of these 150 agreed to participate, but following people dropping out for various reasons, those within the active intervention group totalled 51 participants, and the control group totalled 80 participants. Perceived changes in working conditions were assessed 7 and 12 months after the intervention, and tested for statistical differences.

Peterson et al (2008) have set out clear aims and a hypothesis that enabled them to construct a comprehensive and easy-to-follow methodology. Their explanations of the instruments used for data analysis assists the reader in understanding the necessity of including a qualitative research design, as they also explored the experiences of the participants. One important aspect of the research study concerns the focus being on an

individual using a problem-based approach that they feel able to share in peer-support groups. The support groups were intended to be working, rather than therapeutic groups, as they aimed to promote discussion and reflection, provide an opportunity for mutual support, and find alternative ways of coping with stress. The participants met every week for two hours on 10 occasions, and there was a follow-up group four weeks later. It may have been beneficial to do further follow up groups. However, the groups were unstructured and some participants may have found this difficult, perhaps due to a lack of confidence in speaking out and concerns regarding confidentiality.

The General Nordic Questionnaire for Psychological and Social Factors at Work, which uses a Likert scale, was used to assess quantitative demands such as workload. A Swedish version of the OLBI was used to assess burnout. This was translated into Swedish by two physicians, and it was back translated into German by a bilingual speaker, before the two German texts were compared by another German speaker experienced with the scale to ensure acceptable correspondence between the two versions. This was a very thorough way of ensuring the translation of the tool maintained its original properties. Other measurement tools used were the Hospital Anxiety and Depression Scale (HAD), and the Short Form Health Survey. Participants were asked about perceived changes in work conditions during the last 6 months (e.g. time pressure and workload) 7 and 12 months after the intervention. This is good length of time between assessing the impact to show its long-term effects.

The study has a number of limitations. For example, most of the participants were women, and therefore the results cannot be generalised to men. There was a low number of respondents who agreed to participate (22%), the authors suggesting that this may be due to an unwillingness to participate in group discussions, or health professionals are already over-burdened and perhaps felt the intervention would cause them more stress and take up too much time. Additionally, the groups of professionals involved was mixed, making it difficult to differentiate if one group benefitted more than another. Some respondents stated that they would only participate if all the participants had the same occupation as them. Although these issues need to be addressed in future research, overall, the study showed favourable long-term effects on self-reported work demands, general health and perceived participation at work, and support at work, after attending the reflective peer support group.

Redhead, K., Bradshaw, T., Braynion, P., & Doyle, M. (2011). An evaluation of the outcomes of psychosocial intervention training for qualified and unqualified nursing staff working in a low-secure mental health unit. *Journal of Psychiatric and Mental Health Nursing*, 18, 59-66.

The research by Redhead et al (2011) has some similarities to the research by Ewers et al. (2002), the study investigating the outcomes of a PSI for qualified and unqualified nursing staff working in a low-secure mental health unit. The same metrics of knowledge, attitudes and levels of clinical burnout used by Ewers et al. (2002) were used in this study. However, this intervention study extends knowledge by comparing the effect of the PSI intervention on two different groups: qualified nurses and unqualified nurses. In comparing these two groups the study is significant in the nursing discipline as healthcare is delivered by a high proportion of unqualified nurse.

The authors used a randomised controlled design in allocating the participants into either a control group or the experimental group. They undertook stratification of the participants according to qualifications, age, gender, and clinical area in which they were working. The rationalisation of their methodologies and their data analysis is brief and might create difficulties for those who want to replicate the study. The same applies to their data analysis. The results for qualified nurses mirror the findings of Ewers et al. (2002). In this case, the PSI intervention led to an increase in PA, a decrease in EE and DP, the latter being the only statistically significant score. Statistically unqualified nurses reported an insignificant increase in EE, a small increase in DP, and a small positive increase in PA. The scores for each of these dimensions of burnout imply that PSI programs increased the level of burnout among unqualified nurses rather than decreasing it. Another important finding of their study concerned the significant change in knowledge and attitude scores of the unqualified nurses compared to the scores for the qualified nurses. Their postulations of these observations present opportunities for further investigations as to the most appropriate models of PSI to use with unqualified nurses.

A major limitation of the study concerns the sampling method, as a convenience sample was used to recruit nursing staff working in one LSU on the basis of them volunteering to participate in the study. No baseline comparisons could be made between staff who volunteered and those who did not, therefore it is possible that the characteristics of the

volunteers was different to those who did not take part. The authors are aware of this, and have flagged up the fact that Ewers *et al.* (2002) did address this issue.

The authors did not make clear of how randomization was performed or if the person who collected data was blinded to who was allocated to which group. Furthermore, 42 participants in a sample of qualified and unqualified staff is not representable and would need to be confirmed by further large studies. Overall, the study has revealed positive changes in knowledge and attitude, and increased implementation of PSI in practice, among both qualified and unqualified nurses following the training; therefore, further investigation into the relationship between PSI training is recommended.

Salyers, M. P., Hudson, C., Morse, G., Rollins, A. L., Monroe-DeVita, M., Wilson, C., & Freeland, L. (2011). BREATHE: A Pilot Study of a One-Day Retreat to Reduce Burnout Among Mental Health Professionals. *Psychiatric Services*, 62(2), 214-217.

This study focuses on the use of cognitive approaches as an intervention to reduce burnout. The study investigates the effect of a one day training retreat on reducing burnout in those who provide community mental health care. The key attributes of the intervention include mindfulness, contemplative practices, breathing, and visualisation exercises. Different to the previous studies, participants were given a toolkit and they were encouraged to identify personal burnout warning signs and triggers and to note down a follow-up personalised burnout prevention plan. This seems more practical than simply delivering training outside of the workplace, as it encourages what has been learnt to be taken directly into the workplace setting. In addition, the discussion in the literature review allows the reader to understand the conceptual framework, hypotheses, and aims of the research. For instance, one could identify that the key objectives of the intervention were to decrease burnout, increase job satisfaction, and to improve positive views towards patients.

Validated burnout measurement tools were used to assess the outcomes, which give strength to the results; these were the Maslach Burnout Inventory, the Job Diagnostic Survey, and the Consumer Optimism scale. The findings of the research study affirmed findings from other similar-themed interventions including a reduction in EE, moderate effects of DP, and no changes in PA. However, the validity of the results is wanting because of the time it took to follow up the participants. In this case, six weeks is a short time to realise meaningful results that are congruent with other research investigating the same metrics. Moreover, the absence of a controlled comparison group implies that there

was some level of bias in the study. There are also ethical issues around the research, as participants were given a \$15 gift card for each survey they completed, which may be seen as coercion. This may also have affected their responses, especially as 91% of the participants rated the overall training as either moderately helpful or very helpful.

There are limitations to the study due to the lack of a control group for comparison, and the inability to randomise the sample. Also whilst the authors included ethnicity in their demographic variables they had difficulties in engaging and retaining participants from ethnic minority groups. This suggests that factors outside the study are having an impact, and this warrants further more in-depth investigation, especially due to the lack of impact on depersonalization scores for this demographic. Overall, the outcomes are positive and may be used to inform practice if further studies are carried out and if these confirm the results.

Burnout Reduction Strategies: Global perspective

In undertaking a systematic review Awa et al. (2010) calculated the value of involvement programs at the place of work, or in a different place, aimed at averting burnout which is a main cause of work related mental health damage. A total of 25 who involved in the program were conducted, of which 80% led to a decline in burnout. Individual involvement lessened the level of burnout within six months or less. In all circumstances, the effect of positive involvement reduced in due course. Intervention programs of burnout creates positive impact and can be improved with review or update courses. Better executed programs comprising both person- and organization-directed methods should be obtainable and assessed. A blend of both intervention types has to be further examined, improved and trained.

Awa et al., (2010) ordered six controlled burnout considers around there and reported beneficial outcomes for decreasing burnout in every one of the six studies. Investigators supporting this methodology contend that hierarchical natural variables are forerunners to individual burnout and must to accordingly be the fitting focuses for intercession as opposed to people. For sure, scrutinize on the corresponds and precursors of burnout propose that various hierarchical ecological variables are identified with burnout, including an over the top workload, time weight, part struggle, part equivocalness, a nonappearance of occupation assets (particularly supervisory and collaborator social bolster), restricted

employment input, constrained interest in choice making in matters influencing the representative, an absence of self-sufficiency, shamefulness or imbalance in the work environment, and inadequate prizes (counting social acknowledgment) (Maslach, et al., 2001; Paris and Hoge, 2010; van Dierendonck, Schaufeli, and Buunk, 2001).

As other investigators have noted (Awa, et al., 2010; Halbesleben and Buckley, 2004; Maslach, et al., 2001; van Dierendonck, et al., 1998), most burnout projects have concentrated on changing the person to enhance burnout, ordinarily with the objective of improving so as to diminish work stress the individual's adapting abilities or social backing. An assortment of various systems have been had a go at, going from making recreational music (Bittman, Bruhn, Stevens, Westengard, and Umbach, 2003), to psycho-synthesis, a humanistic treatment with profound accentuation (van Dierendonck, Garssen, and Visser, 2005). A large portion of the mediations, fall inside of the general class of intellectual behavioral intercessions, including giving instructive data, subjective rebuilding, dynamic muscle unwinding, social aptitudes preparing, relational abilities preparing, and abilities to improve social motivation (Murphy, 1996; van Dierendonck, et al., 1998). Assessments of individual-level mediations propose that adapting aptitudes projects are regularly successful for lessening burnout, particularly enthusiastic depletion, and some of these projects additionally have prompted positive physiological results (e.g., lower pulse) for representatives (Awa, et al., 2010; Halbesleben and Buckley, 2004; van Dierendonck, et al., 1998). Awa and partners likewise finished up, that the noteworthy changes in burnout that accumulated from individual-centred intercessions frequently vanished six to twelve months after the culmination of the mediation, unless supporter sessions were incorporated into the project.

A study carried out by Günügen & Üstün (2010) using a randomized controlled trial (RCT), examined the effects of interventions, coping and support groups, on the reduction of burnout symptoms in nurses. The study concluded that EE was reduced following the interventions, although the scores increased again after six months (Günügen & Üstün, 2010). Kowalski et al. (2010) suggest that the creation of a good working atmosphere that readily provides mutual support and promotes the pursuit of joint hospital values, as well as increased decision latitude and reduced workload, is likely to prevent burnout in nurses. A lack of effective burnout prevention is associated with poor work-related mental health among employees, particularly where risk factors are prevalent. Individuals who engage in stress intervention programs report fewer symptoms of stress compared with those who do not (Lamontagne et al., 2007). A qualitative study conducted in Iran to explore Iranian

nurses' experiences about their coping strategies to deal with burnout, revealed five major themes relating to coping strategies for burnout: i) the spiritual journey, ii) the holiness of the job, iii) their spiritual reward, iv) proximity to God and v) their religious responsibility (Salaree et al., 2014). In a systematic review of the literature Awa et al. (2010) evaluated intervention programs' effectiveness in burnout prevention. Their review showed that intervention programs that target burnout are beneficial in its prevention, concluding that refresher courses can be used to improve these programs.

One particular cross-sectional study of nurses in China was undertaken to examine the mediation effect of personal coping skills on the relationship between burnout and core self-evaluation (CSE) (Li X et al., 2014). It was concluded that nurses with greater levels of self-evaluation would not report the same heightened level of EE and cynicism, although they would report elevated professional efficacy. Moreover, it was ascertained that there was a negative association between EE, the scores of CSE and the active coping style, as there was less chance of EE when a high CSE score and an active coping style were present. In contrast, there is an increased relationship between a passive coping style and EE. Furthermore, Li et al. (2014) determined that a coping style would also indirectly affect the relationship between CSE and cynicism. This study highlights the need to improve coping strategies, as this may be useful in burnout prevention, thereby improving nurses' professional performance.

In mental health care clinical supervision has been identified as one approach to reducing work related stress and subsequent burnout (Edwards et al., 2006). The extent to which clinical supervision of nurses may potentially influence individual burnout levels was evaluated among community psychiatric nurses working in Wales (Edwards et al., 2006). It was revealed through the study that progressive clinical supervision as an implemented necessity is likely to lead to lower burnout levels, which was particularly true in the dimensions of depersonalization and EE. These findings are supported by a Finnish study (Hyrkas, 2005), which revealed that clinical supervision was beneficial for psychiatric and mental health professionals, as those who made use of this resource were shown to have lower levels of burnout.

The role of psychosocial interventions in reducing burnout has also been investigated. Ewers et al. (2002) evaluated how psychosocial intervention (PSI) training could produce an effect upon personal attitudes and knowledge, as well as clinical burnout levels in forensic mental health nurses in Manchester, UK. Their study revealed that the intervention

was associated with significant improvements in nurses' attitudes and knowledge of serious mental illness and, as a result of this there was a significant reduction in burnout rates. The findings of this study show that training nurses in a wider range of interventions are likely to reduce the stress associated with their caring role, thereby reducing the levels of burnout.

Managing burnout among nurses: evidenced-based approaches Lee H (2003) showed a link between use of coping strategies, less work stress in nurse and a better health status, in this study. Lambert, et al. (2004) indicated that accepting responsibility and avoiding escape are two attributes that have a positive association with quitting a nursing job. In other words, nurses who showed interest in changing jobs said that accepting responsibility and avoiding escape helped them cope with the situation at their current job.

The four most used methods of coping listed by Lambert et al (2004) are given as follow, self-control; seeking social support; planful problem solving and positive reappraisal.

In their study, Lee & Akhtar (2007) indicated that self-efficacy in nurses practicing in Hong Kong is the most efficient coping mechanism as it has a negative association with emotional exhaustion and depersonalization and a positive association on personal accomplishment. Resilience is defined as the ability to recover from setbacks, adapt well to change, and keep going in the face of adversity (Tugade & Fredrickson, 2004). Resilience means not showing dysfunctional behaviour in face of a devastating changes (Werner, 2004) by adapting to these changes in order to survive and move forward (McGee, 2006). Everyone is born with the ability to develop resilience in situations that pose a threat to personal growth (Masten, 2001). Social, organisational support, personal views, attitudes and circumstances along with), personal and professional experiences are some of the factors that influence an individual's ability to cope with a stressful situation (Ekedahl & Wengstrom, 2006; Fitch Matyas & Robinette, 2006; Hinds, Quargnenti, Hickey & Magnum, 1994; Ablett & Jones, 2007). According to Quattrin et al, (2006) some nurses are better equipped to deal with stress than others. Nurses that rise above stressful situations are thought to be resilient as they can overcome stress (Warelow & Edward, 2007).

Resilience is not only an individual factor but also acts as a collaborative factor that affect stress among nurses (Cunningham, 2003; Sherman, Edwards, Simonton & Mehta, 2006; Ablett & Jones, 2007), and can have either physiological or psychological effects (Tusaie & Dyer, 2004). Kim, Oh & Park (2011) deduced resilience in Korean nurses was

negatively related to occupational stress, and had a positive relation with occupational satisfaction. The presence of high resilience in a sample of American ICU nurses was significantly associated with a lower prevalence of burnout syndrome (Mealer, Jones, Newmana, McFann, Rothbaum & Moss, 2012). Jackson, Firkto & Edenborough (2007) suggest that nurses must develop resilience to transcend the professional obstacles they face in their work. Understanding of the coping strategies of nurses and the presence of resilience among them is helpful in providing better support for prevention of the consequences that may happen upon exposure to high levels of stress and burnout (Zander, Hutton & King, 2010).

Summary

Although burnout is a commonly observed phenomenon with a negative impact, it can be reduced and/or prevented (Günösen & Üstün 2010). Globally, intervention programme for burnout prevention are either organization-directed, person-directed (individual/group) or a mix of both. Intervention programme that are person-directed are generally based on a cognitive behavioral approach, focusing on promoting personal coping strategies, skills that will lead to competency, and having support structures in place. Organization-directed interventions are generally changes in the procedures of work, for example, restructuring, supervision and evaluation that focuses on increasing participation in decision making and level of job control, as well as decreasing job demands. Such measures aim to empower individuals and minimize the experience of stress (Awa, et al., 2010).

While the studies presented above have their strengths and limitations, undertaking a critical review of each allowed the development of a burnout reduction programme that could be used within the Saudi context. Of the 12 studies presented, six used psycho-social interventions (Bittman *et al.*, 2003; Ewers *et al.*, 2001; Kravits *et al.*, 2010; Le Blanc *et al.*, 2007; Medland *et al.*, 2004; Peterson *et al.*, 2008), two adopted a cognitive behavioural approach (Isakkson *et al.*, 2010; Mackenzie *et al.*, 2006), and four adopted both PSI and cognitive-affective approach (Gunusen *et al.*, 2010; Onan *et al.*, 2013; Redhead *et al.*, 2011; Salyers *et al.*, 2011). Those using a psycho-social approach included several distinct activities: reactional music-making (RMM) following the Health RHYTHMS Group Empowering Drumming Protocol and a series of Clavinova exercises (Bittman *et al.*, 2003), peer-support group (Peterson *et al.*, 2008), self-care activities (Kravits *et al.*, 2010), PSI training intervention (Ewers *et al.*, 2001; Redhead *et al.*, 2011), new coping intervention (Onan *et al.*, 2013), one-day training retreat using Burnout Reducation:

Enhanced Awareness, Tools, Handouts, and Education (BREATHE) approach (Salyers *et al.*, 2011), support groups (Gunusen *et al.*, 2010), managing symptoms by lecture, discussion, assessment, and engagement activities (Redhead *et al.*, 2011), management support through *Take Care!* Intervention (Le Blanc *et al.*, 2007), and psychosocial wellness (Medland *et al.*, 2004). While those underpinned by cognitive behavioural theories tended to involve recognizing stress (Onan *et al.*, 2013), training on mindfulness and contemplative practices, visualization exercises (Salyer *et al.*, 2011), cognitive coping strategies or behavioural therapy (Gunusen *et al.*, 2010; Redhead *et al.*, 2011), self-referral, counselling intervention (Isakkson *et al.*, 2010), and brief mindfulness-based stress reduction (Mackenzie *et al.*, 2006) were also used.

In RMM activities, Bittman and colleagues have included hand drum, SoundShapes, a set of auxiliary percussion instruments (bells, maracas, etc.), and a state-of-the-art computerized electronic keyboard instrument (Clavinova). The peer-support group provided discussions and reflections on work-related stress, burnout, and individual goals including mutual support between colleagues. Self-care activities included psycho-education on reading a poem created using oil pastels and collage art as part of self-care reflection guide, guided deep breathing exercises, positive intention practices, exploring coping strategies, writing a wellness plan, exploring challenges and options for managing challenges, practices on grounding exercise, progressive muscle relaxation, and guided imagery. The PSI training intervention, as described by Ewers and colleagues, included education program, elements of process engagement, clinical supervision and assessment activities, and interventions on encountered clinical manifestations (hallucination, delusion, etc). Redhead and colleagues also evaluated the outcomes of PSI training intervention for qualified and unqualified staff members using different approaches. For qualified staff, Redhead and colleagues used 16 half-day sessions delivered over 8 months, focusing on a broad range of PSI, such as cognitive behavioural approaches for managing symptoms. For unqualified staff, they used 8 half-day sessions and focused on understanding symptoms related to behaviors, relationship formation, and helping services users to cope with symptoms. The new coping intervention included introduction of the topics involved, sessions on recognizing stress in workplace settings, work-related stress experiences, coping strategies, relaxation techniques, effective communication, saying “no” by roleplay, problem solving, and assessment and evaluation. BREATHE approach involved brief introduction of the topic, burnout prevention principles, experiential exercises, contemplative practices, social support, developing support, physical, cognitive-philosophical, imagery, and other self-care activities. In their burnout reduction intervention, Gunusen and colleagues included

concepts on coping and support groups. The coping groups received cognitive coping strategies through emotion-focused methods and problem-solving approaches. The support group, received reflection activities using Gibb's reflection model. The self-referral counselling intervention included aspects of cognitive theory that concentrates on the potentials for change. These include daily lectures and didactic training on mindfulness and other relaxation exercises, physical activities, and counselling sessions. *Take Care!* intervention included educational sessions, survey feedback methods, problem-solving activities, and tackling of job stressors. The components of the mindfulness-based stress reduction program included elements of a didactic section and experiential exercises on mindful eating, stretching, sitting with awareness of thoughts, body scan, and three-minute breather activities. Lastly, the psychosocial wellness, as described by Medland and colleagues, involved reviews on the recent advances on enhancing psychosocial wellness among oncology nurses. These included the role of workplace culture and social support, community building in the work setting, addressing spirituality among the oncology team, and creating a healthier workplace by developing workplace solutions through the 'circle of care retreat' sessions.

In light of this, when developing a programme for nurses working in SA, lectures, group discussions, role playing, progressive muscle relaxation, deep breathing exercises, guided imagery, social support and communication skills training and other didactic training, and skill development were adopted. Additional elements of educational training, such as demonstrations and video framing, were included in the present burnout prevention program. This intervention programme was carried out for 2 consecutive days, totalling 12 hours (6 hours per day) of trainings and workshops. The present burnout prevention programme was conducted in Al Amal Complex for Mental Health with each session consisted of around 25-30 nurses in May 2015 (pre-test) and June 2015, September 2015, December 2015 (post-tests). Detailed description of the programme is presented in Methodology section and Appendix C. The next chapter will present the research methodology, which was quasi experimental design and its application within this research study.

CHAPTER FIVE: METHODOLOGY

Introduction

The aim of this study was to identify the level of stress, the major cause of burnout, and to measure the effects of a burnout prevention programme on mental health nurses working in Saudi Arabia. This chapter describes the research paradigm, study design, setting, sample, sampling method, the study instruments and their psychometric properties, data collection procedures, ethical considerations and data analysis.

Philosophy

Research philosophy is concerned with the “*development of knowledge and the nature of knowledge*” (Saunders et al., 2012, p. 127). The underlying notions rely on significant assumptions made by the researcher, governing the way in which he or she views and assesses the world and reality (Saunders et al., 2012). Accordingly, it is reasonable to surmise that as far as research philosophy is involved, the way in which the researcher sees the world (as it is based on his or her own frame of reference), human knowledge and reality will invariably affect the manner in which any hypothesis is formed, research is designed and how it is conducted (Saunders & Tosey, 2013). There are many kinds of philosophical approaches that can be employed by a researcher, and these include: ontology which is linked to objective and subjective reality, epistemology, which includes pragmatism, realism, interpretivism and positivism, as well as axiology which highlights value judgements made by the researcher during the research. Clearly, a ‘one size fits all’ approach cannot be used for all research, and so the researcher must choose their research paradigm/framework carefully, by considering the aims, objectives and the end result of the research being conducted (Saunders et al., 2012). Delineation of a research philosophy involves considering three questions, which are: (1) what is the nature of reality? This is linked to ontology, as the question focuses on the nature and form of reality, (2) what is the relationship between the knower and the known? This relates to epistemology, (3) how can we come to know it? This question relates to methodology (Pickard, 2013). The significance of the research philosophy cannot be underestimated due to a number of factors: (1) the research philosophy reinforces the design of the research successfully and coherently, (2) it can help in selecting an effective research design which is aligned to the research observations aims, (3) it augments the researcher’s design skills, as he or she may use a new research design which has not been used before, and so can provide useful and fruitful knowledge-building experience, in terms of broadening and deepening their

expertise (Saunders et al., 2002). In conclusion, the foundations of research philosophy are linked to ontology and epistemology, and these elements are required in order to help shape and define the research methodology, which include steps, process, and layers inherent in producing a robust study. In the following section, the ontology and epistemology for this project will be defined (see Figure 2 below).

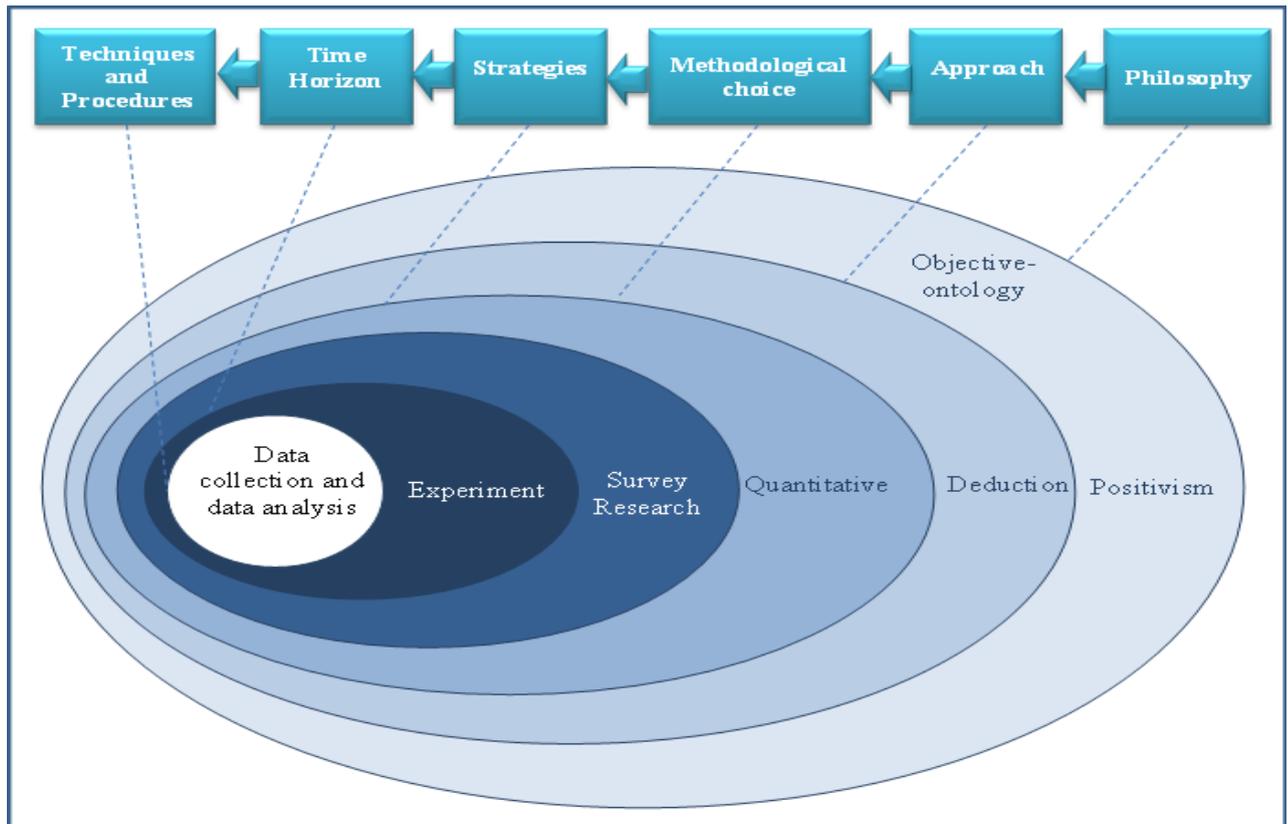


Figure 2. The Research Onion Model (Saunders et al., 2012) in the context of this study.

Ontology

Ontology is concerned with the nature of reality (Bryman & Bell, 2015; Pickard, 2013; Saunders et al., 2012). A researcher would use their own ontological position when making assumptions and questions about the way in which the world functions and the obligation of a specific assessment for a given context (Saunders et al., 2012). Ontology can be divided into two distinct areas: objectivism and subjectivism

Objectivism

Saunders et al. (2012, p. 131) state “*objectivism represents the position that social entities exist in a reality external to and independent of social actors*”. Objectivism is in keeping with positivism in order to elucidate and examine theories (Saunders et al., 2012). Therefore, objectivism concentrates on realism which can be described as an external reality with a predetermined nature and structure (Sexton, 2003).

Subjectivism

Subjectivism is concerned with social events, which encompass social activity. It focuses on the interaction between user, phenomenon and process, and is utilised to comprehend situations, the influence of phenomena, and the causal factors behind them. Subjectivism is in keeping with interpretivism (Saunders et al., 2012). In conclusion, whereas objectivism focuses on a single reality, subjectivism accepts multiple realities as perceived by individuals (Sexton, 2003).

Quantitative Research

Quantitative research is associated with positivism and is concerned with examining the correlation between research variables. This type of research puts emphasis on measuring numerical data as well as using statistical techniques for analysing data (Saunders et al., 2012). Quantitative research is centred on a theoretical framework derived from a literature review (Bearman & Dawson, 2013; Pickard, 2013). The literature review helps the researcher to identify aims and objectives and to develop the research hypotheses. In addition, using positivism and a deductive approach within quantitative research enables a researcher to test theories (Saunders et al., 2012).

Qualitative Research

In contrast to the above, qualitative research is used to investigate phenomena, including behaviour, attitudes and experiences using data collection techniques such as interviews, focus groups (Bearman & Dawson, 2013) and observations (Creswell, 2014). Once the data has been collected, the researcher will examine the findings/results and attempt to provide an interpretation, which may reveal hidden meanings within human experience (Broom & Willis, 2007). Given the nature of this type of research and its focus on interpretation, clearly subjectivity can play a large part in the conclusions being made, with factors such as the researcher's history and culture can invariably have a bearing on the outcome (Broom & Willis, 2007; Topping, 2015). Qualitative research uses interpretivism and the inductive approach can be used to establish a theory or model (Saunders et al., 2012).

Mixed Methods

As the name suggests, a 'mixed methods' approach merges both qualitative and quantitative components at the design stage; the aim being to elucidate an understanding of research concepts. (Creswell, 2007; Creswell & Clark, 2011; Saunders et al., 2012). As this methodology is mixed, data collection can come from a variety of sources, drawing on both quantitative and qualitative paradigms to achieve the research aims (Creswell, 2011; Saunders et al., 2012).

Research paradigm and the adopted positivist position taken in this study

It is known that there are two key paradigms for the verification of theoretical propositions, positivism and anti-positivism (or naturalistic inquiry). A paradigm is a view of life that guides the researcher's actions and judgments. Guba (1990, p: 17), defines a paradigm as "*a basic set of beliefs that guide action*". Moreover, a paradigm can be defined as an overarching philosophical or ideological stance, a system of beliefs about the nature of the world, and ultimately, when it is applied in the research setting, the assumptive base from which knowledge is produced (Rubin & Rubin, 2011). A paradigm is a set of assumptions and perceptual orientations shared by members of a research community. Paradigms determine how the research communities view the phenomena, how their particular community study, and the research methods that should be used to study those phenomena. For researchers, the problem of the study, its purpose, and the features of the data must be understood before choosing a particular research paradigm. Research in social sciences,

such as nursing, usually fall into two main paradigms; namely positivism, or quantitative research, and interpretism, qualitative research.

By its very nature, quantitative research requires precision in order to maintain its objectivity, and so researchers must adhere to meticulous procedures to achieve this. Criteria are used to provide a means of control within the study and moderate the effects of bias, which can significantly influence factors such as reliability, validity and credibility (Grove et al., 2014). In general, it can be inferred that quantitative researchers normally espouse the assumptions of positivism (Phillips & Burbules, 2000). The paradigm of positivism emphasizes 'true' knowledge based on objective evidence that can be acquired through the applications of observation and experiment (Mertens, 2005). At the heart of the positivist paradigm are its roots in objectivity; objectivity in studying social phenomena and in prioritising research methodology that stresses the use of quantitative data and analysis. As the present research is concerned with measuring the effects of an intervention, the researcher believed that this was the most appropriate approach to adopt in order to answer the research questions.

Tracing the origins of positivism, this paradigm began to appear/surface as a challenge to medieval notions of knowledge that was being disseminated without question, and which was being further legitimized by religious authorities (Al Riyami, 2015). When a researcher uses this paradigm, it is likely they believe in the existence of a single truth or reality for a particular phenomenon, which can be discovered via empirical observation (empiricism) (Broom & Willis, 2007). In addition, it is also acknowledged that certain laws of the universe are unchallengeable, notwithstanding the influence of human interpretation (determinism) (Broom & Willis, 2007). This deterministic element can be articulated in the midst of seeking to establish cause and effect relationships (Gelo, 2012; Ponterotto, 2005). As this philosophy is rooted in refutation, it holds that all knowledge or facts can be modified, refined or even dismissed on the basis of better observation or experimentation (scepticism) (Topping, 2015).

As this approach focuses on minimising bias, preserving objectivity and avoiding interpretation, any measures that can be controlled or excluded to achieve these objectives will be employed (Broom & Willis, 2007). The removal of contextual factors that are considered extraneous is indicative of a reductionist approach, which is primarily concerned with observing the interaction between the variables that have been selected (Scotland, 2012). Data collection techniques of surveys and experiments are commonly

adopted (Creswell, 2014). This type of paradigm relies on using refined, well planned statistics to test the relationship between study variables, in order to produce findings that can be generalised and applied to a wider population (Gelo, 2012). Consequently, any generalization sought cannot be achieved, nor can it be considered as being credible if research, data collection, and analysis are not precise. Measuring the effects of a burnout prevention programme, as was the intent of this study, needs to be accurately executed if the findings are to be valued by the nursing profession and the organisations who employ them.

Design of research

A quantitative approach utilizing a non-equivalent pre-test post-test design was employed to answer the research questions of this study. The quasi-experimental design was employed by using two groups, an intervention and control group, allowing measurement of the change following the implementation of an intervention (Stommel & Wills, 2004). Quasi-experiments are used to examine the causal impact of an intervention on a specific group compared to a control group (Polit & Beck, 2012). With regard to experimental design, random allocation of people to experimental and control groups may be unethical - for example, to cause one group to smoke or to prevent another from engaging in healthy behaviour. When these problems are present, as within this study, and a true experiment is not possible, a quasi-experimental design is employed (Beanland & Schneider, 2000).

Although randomised control trials are more rigorous compared to a quasi-experimental design, the latter may be the most rigorous approach that is possible under the natural circumstances (Reichardt, 2009). For example, in this study, randomising nurses to control and experiment groups in the same hospital would have risked contamination as nurses in the experimental group may have shared their experience with those in the control group. Moreover, matching nurse characteristics between groups is also difficult, particularly in Saudi Arabia where the majority of nurses are expatriates from many different countries and cultures. In the absence of random allocation of individual participants, a quasi-experimental design was deemed as being the best option; in particular, a non-equivalent control group pre-test - post-test design. As well as using a quasi-experimental design, the study also relied on using a deductive approach by generating hypotheses and testing them. The use of strict conditions meant that extraneous variables were excluded and selected variables were controlled. Validated questionnaires were used, and data analysis was undertaken through statistical testing.

All of the measures that were employed in this study are indicative of it being based on a positivist paradigm, in this instance delivering a workshop aimed at decreasing burnout on a specific group. Moreover, using an experimental design allowed the researcher to measure changes that occur after the implementation of the intervention and compare it with those who did not receive the intervention (control group). To measure such changes a pre-test was used prior to exposure to the intervention and post-tests applied at one, three and six months intervals following the intervention to measure sustainability. The intervention subjects were exposed to a nurse-led burnout reduction programme (see previous chapter/appendix C) which was delivered over two consecutive days (12 hours in total, 6 hours per day). The intervention was conducted at the Al-Amal mental health complex, where one of the hospitals served as the intervention group and other as the control group. The institution was randomly assigned to either facilitate the intervention or the control group. The specific programme was based on cognitive behavioural interventions used to manage burnout among nurses working in mental health care settings. The programme has been modified to address cultural variations. These include communication training (e.g. Arabic language, non-verbal communications, conversational skills, and assertiveness), social skills (e.g. Saudi customs, etiquette, cultures and traditions, gender issues, scheduling, family values, and behavioural techniques) and developing social support. The nurses in both intervention and control groups were assessed for level of burnout at baseline and post intervention at three selected time points; one month, three months and six month follow up to determine the long term effect and whether positive changes after completion of the intervention could be sustained (see Figure 3 below).

Figure 3. Time table for intervention and control.

Intervention Group	O1	X	O2	O3	O4
Control Group	O1		O2	O3	O4
	baseline		1 month post intervention	3 months post intervention	6 months post intervention

Study variables

Independent variable: *intervention programme*

Dependent variables: *burnout*

Setting

This study was conducted at Al-Amal Complex for Mental Health at two sites; Riyadh and Ara'r. A simple random technique was used to identify the site at which the intervention and control group should take place. The technique used to assign a hospital to either the intervention or the control group was for the researcher to put two pieces of paper in two separate envelopes, on one piece of paper was written intervention and on the other control. The researcher sealed each envelope and ask someone at one of the hospital to choose an envelope, open it and see which group that hospital was allocated to. The hospital complex where the intervention group took place consists of around 12 wards providing mental health services. The hospital complex where the control group took place consists of around 11 wards providing mental health services.

Target population

The target population for the current study was nurses working in mental health institutions, Al-Amal Complex for Mental Health, Riyadh and Ara'r, in the KSA. Eligibility criteria include: 1) registered nurses with two years post-qualifying experience. This allowed nurses to be oriented and informed about policy and work schedules at the hospitals. No exclusion criteria were added to maximize participation and variation among nurses. Using the simple random technique, Al-Amal Complex for Mental Health in Riyadh was assigned as the intervention group and Al-Amal Complex for Mental Health in Ara'r was assigned as the control group. As stated above two separate hospitals were used for the control and intervention group to avoid contamination.

Sample of the study

Sample size is an essential element of research design that significantly affects the validity and clinical significance of the findings identified in research studies (Polit & Beck, 2012). According to Burns and Grove (2009) it is best to calculate an adequate sample size for a quasi-experimental design by performing a power analysis. To estimate sample size, the three following parameters are necessary to perform a power calculation: significance level, effect size, and statistical power (Burns & Grove, 2008). There are several computer programme available to calculate the power calculation. The power calculation for this study was established on the assumption that the intervention and control group were of

similar size and participants had similar characteristics. According to the standardized sample size table (Hinkle & Oliver, 1983) if .05 level is of significance, standardized effect size = medium (.50), and power = .80, therefore 84 subjects were required for each group. The number can be modified for the following reasons: 1) the homogeneity of the sample of interest, and 2) the use of highly reliable and well respected data collection instruments. The sample that was determined for the purpose of this study was 84 subjects per group, meeting the requirement according to the Central Limit Theorem (CLT). This means that at least 168 subjects had to be approached to participate in the study. However, estimating a 50% participation rate, due to expected attrition and/or missing data, a larger sample would provide greater power and reduce the likelihood of a Type 2 error. In light of this all nurses in Al-Amal Complex for Mental Health were invited to participate in the study. The total number of nurses working at the complex is approximately 300. The sample recruitment process lasted for one week, whereby posters were put up around the hospital in wards advertising the study, to achieve the required sample size. In total 296 nurses were recruited, of these 154 were ascribed to the intervention group and 142 to the control group. At post intervention test one (one month post intervention) there were; 144 in the intervention group and 133 for the control; post intervention two (three months' post intervention) the intervention had 136 participants, the control 133; post intervention three (six months' post intervention) 130 remained in the intervention group and 125 the control group. The total for the final data collection point was 255 participants across both groups, meaning over the duration of the study 41 participants were lost, 17 participants dropping out of the control group, and 24 from the intervention group. To enhance the results of the study, a power analysis was conducted to calculate the sample size. This enabled sample size issues and effect of type –I error to be eradicated. In addition, the researcher was able to recruit a sample large enough to overcome dropout rate effect.

Recruitment and Data Collection Procedure

After obtaining ethical approval from the Research Innovation and Academic Engagement Ethical Approval Panel at the University of Salford (appendix D) and ethical approval and permission from Al-Amal Complex for Mental Health in Riyadh and Ar'ar (appendix E), the procedure for data collection was as follows:

1. An advertisement was displayed throughout Al-Amal Complex for Mental Health using nurses' advertisement boards to put up a poster (see appendix F). The advertisement provided information about the purpose of the study, what participants would be expected

to do, the significance of the study, and the contact information to access the researcher to discuss the study further or to express interest. Potential participants were given an invitation letter (appendix G) and information sheet detailing the study (appendix H).

2. After screening for eligibility of those who showed interest in participating in the study, those eligible were asked to sign a consent form (see appendix I).

3. Following random selection and assignment, all potential subjects were asked to complete a questionnaire about their demographic characteristics.

4. All participants were then asked to fill in the Maslach's Burnout Inventory; MBI; (Maslach et al., 1996) (see appendix J) which was used as a base line assessment of their level of burnout. (See appendix K).

5. The 154 nurses in the intervention group were divided into seven groups, each group having between 20-25 nurses. During the intervention, male nurses were separated from female colleagues as part of Saudi custom and tradition.

6. The intervention was delivered over two days' (6 hours per day) and was based on a cognitive behavioural intervention (CBI) approach. The sessions took place at a private room at Al-Amal Complex for Mental Health. A group leader was assigned to each group and took responsibility for delivering the intervention programme. In total six groups were delivered, three groups running simultaneously. The group leaders (a total of three) were Masters Level prepared nurses who are experienced and licensed in psychiatric and mental health nursing.

7. Each session was audio-taped and video-taped to ensure integrity of the sessions. The group leaders maintained records and notes of the sessions and had to fill in a progress report after each session. An expert group therapist reviewed the sessions. To maintain and ensure validity of the intervention, all sessions were conducted within the same time frame, under the same conditions, and using the same materials. Prior to starting, the three group leaders (the interventionists) had reviewed all material and agreed on the style, methods and content that would be covered per session.

8. After the completion of the sessions, all participants (intervention and control group) were asked to complete the MBI one, three and six months' post intervention. Both the control and intervention groups did this at the same time.

9. Data collection started in May 2015, by the primary researcher. Prior to this a small pilot study was carried out with a sample of participants to ensure the tool was fit for purpose in an Arabic setting. The purpose of the pilot study was to assess the clarity and evaluate readability and comprehension of the MBI, and the length of time needed to complete it.

Recruitment of research assistants

The prevailing cultural norms and practices in Saudi Arabia had an effect on this study which was conducted in a nursing education institution, based at Al-Amal Complex for Mental Health in Riyadh. The vast majority of educational institutions (government and private) observe strict segregation of the sexes as free mixing and mingling is not permitted. Consequently, this meant a single researcher would not be able to conduct the study with both males and females. Rather, it was necessary to recruit a woman for this purpose. Therefore, the research staff for this study consisted of two males and one female research assistants.

Furthermore, in order to avoid personal bias in the study, the researcher made the decision to recruit three research assistants, acting personally as a point of liaison and facilitating the training to maintain consistency in the delivery of the educational materials. Additionally, in order to mitigate any further cultural factors, the researcher chose to select researcher assistants from the same background and cultural milieu as the nurses, as this would make it easier for them to work with the nursing staff and to have ease of access in to the hospital building. The process of selecting suitable research assistants involved a meeting with the hospital's director of nursing staff. The hospital selected for the study is based in Saudi Arabia's capital city, Riyadh, and is acknowledged as being the primary referral hospital in the region.

The following recruitment criteria were agreed upon with the director of nursing:

Research assistants had to be Saudi nationals; the rationale being that they would understand the staff and culture far better, and would be fluent in the local Arabic dialect. This careful screening process and matching of requirements ensured that the research assistants selected would not only have the relevant background; they would also be able to encourage participation during delivery of the burnout education programmes. One of the limitations of previous studies has been that researchers have not provided a sufficient rationale for the selection of certain research assistants. Given the cultural norms and sensitivities involved in Saudi society, it was crucial for this aspect of the study to be carefully considered, as a failure to do so may have jeopardised the integrity and credibility of the whole study.

Candidates had to have a Masters' degree qualification in Nursing. This ensured that the research assistants had familiarity with the management and treatment regimes for burnout.

The additional advantage of this criteria meant that the research assistants would be comfortable and familiar with the environment, and have an appropriate educational background congruous with the work environment that they would be conducting the programme in. The research assistants had to be registered with the Saudi Commission for Health Specialties (SCHS), and have at least two years' experience of having worked in a mental health hospital. This criterion was agreed so that the research assistants being recruited had a level of familiarity with the signs, symptoms and treatment options of burnout / Stress. This would also ensure that they would be comfortable working with the nurses in a classroom setting.

The intervention

As stated in previous chapters, burnout in nursing is a global concept that describes and reflects the impact of working in a stressful environment. Differences in personal, cultural and organizational factors are suggested to influence burnout experiences among nurses. Due to such differences it is important to develop a prevention programme that is in keeping with the society it serves and can also take account of the differing levels of burnout among those engaging with it. Introducing a burnout prevention program was a novel experience to the Saudi mental health care system.

Utilising a universal prevention programme was considered useful for this study, as it would allow the introduction of using global strategies to ameliorate stress and enable the researcher to compare results with similar studies previously identified. Evidence within the literature highlighted a number of ways of successfully dealing with undesirable stress. These included; reactional music-making, social support group, progressive muscle relaxation, deep breathing exercises and guided imagery. Of these self-care activities breathing exercises, progressive muscle relaxation, communication and social skill training and social support were all considered suitable for this study. Whilst other interventions were recognised in relieving stress, for example, drumming with a keyboard accompaniment (Bittman et al. 2003), these would not be suitable for use in KSA due to musical instruments being disapproved of for religious reasons. In addition, some forms of mindfulness are more spiritual and linked to the Buddhist faith, which would also be unacceptable in a country where most people strictly adhere to the Islamic faith. Thus, when planning the programme thought needed to be given to the form activities might take. In this instance as mindfulness formed the main part of the universal package, the form adapted by Fortinash and Worret

(2014) was used. This involves a form of relaxation based on concentrating on the rhythm of one's breathing, along with social support (Fortinash & Worret 2014). As this concept is new to the workplace in Saudi, and in order to carry out consistent trials with comparable results, a universal package, with minor adaptations, was beneficial.

The intervention programme was delivered in two consecutive days (12 hours in total, 6 hours per day with breaks as appropriate). The programme was delivered through a two-day workshop comprising of lectures, dyadic and group activities, as well as skill development. Participants were provided with materials and resources (i.e. lectures note, videos, information pamphlets) before starting the workshop. Each workshop session consisted of around 25-30 nurses. Salyers et al., (2011) suggested that 10 to 28 nurses are appropriate numbers to participate in a workshop. A total of 25 - 30 nurses per group were manageable given the total numbers wanting and required to participate and maintaining a safe working environment. The workshop sessions were continued until all those who had consented to participate in the study had attended.

The workshop included the following topics:

1. Introduction about burnout: definition, signs, and possible causes
2. Consequences of burn out on both nurses as individuals and institutions
3. Principles of burnout prevention
4. Tips for creating space for relaxation
5. Self-care activities such as breathing exercises
6. Stress reduction management
7. Progressive muscle relaxation
8. Social skill training and social support
9. Communication skills training

Design of Burnout Reduction Programme

Burnout has significant negative impact on individuals and the organization, and is assumed to be expensive and destructive. Therefore, the management of burnout has to be at both an individual and institutional level. According to Cox et al.'s (2003) transactional model of stress, the management of burnout can be targeted at primary (prevention), secondary (timely reaction) or tertiary (rehabilitation) levels. This requires that both individual and organization have a holistic and comprehensive plan of intervention to manage burnout at these different levels.

Managing burnout at the primary level requires adopting a primary intervention plan that helps in the termination of stress in the work place by focusing on altering the physical or socio-political environment to meet employees' needs and empower them in their different work settings (Cooper et al., 2001). However, if demands or stressors are not managed properly, individual may gradually experience an extreme level of burnout (Nelson & Quick, 2006). Ensuring primary interventions occur is one of the main functions of an organization since these are institutional rather than individual based. Primary level interventions are effective if communication processes are enhanced, jobs are redesigned or nurses have been given a certain amount of control, and given the right to plan their own working duties, the timing of their work shifts, the selection of their work tools and the people they work with (Jordan et al., 2003; Nelson & Quick 2006).

Secondary interventions are a way of assisting nurses in changing or terminating workplace stressors through using training programmes. The programmes are based on helping nurses to enhance their work abilities and for early detection of symptoms of burnout in themselves or in others (Jordan et al, 2003). In such training programmes, nurses are educated and trained to develop coping strategies that let them work without being under stress. Such strategies will enable them to do no harm to self and to better handle stressful situations (Landy & Conte 2006). The function of secondary prevention is to change or modify the expected (anticipated) reaction of nurses to sources of work stress whether they are individuals or institutional related. Secondary prevention can involve enabling nurses to adopt definite plans of action to manage work stressors through empowering them and focusing on promotion of wellbeing. According to Landy & Conte (2006), secondary interventions consists primarily of coping strategies based on emotional factors that help reduce stressful reactions to stressors. The factors include ignoring, minimizing or distancing oneself from the presence or impact of the stressor. Coping strategies can be effective or ineffective. The ineffective strategies include fleeing or ignoring the stress by staying away from their stressors or by using drugs or alcohol to help them deal with the pain associated with the stressor. Effective coping strategies allow individuals to deal with the stress by taking it on as a challenge and also through recognising the influence the stressors have and then minimizing it before it can reach a peak. The literature showed that nurses vary in their coping skills. For example, Theodoratou et al., (2006) found nurses were mainly using the following effective coping strategy: focus (89.4%) and social support (78.8%), while they also used ineffective coping strategies such as withdrawal (30.6%), denial (72.5%), and diversion (83.8%).

Mannahan et al.'s (2006) study found the most important component of coping with stress was that which helped to prevent negative consequences of stress. This shows that nurses are selecting the coping strategy that best helps them to avoid stress and its consequences, rather than focusing on the effectiveness of these coping strategies, which may contribute to exacerbate the emotional status of the nurse causing higher levels of burnout.

Tertiary prevention involves improving the health and competence of individuals and organizations that have experienced burnout. Tertiary prevention focuses on the treatment and rehabilitation of individuals who have experienced situations that have caused them to be constantly stressed and become 'burnt out'. Research carried out by Maslach & Leiter (1997) showed that if an individual does not like or understand their job or find it to be a mismatch with their personality, they are more likely to be unhappy and stressed with their life in general and vice versa. The main goal of tertiary prevention techniques is to help nurses who are stressed due to problems in their work environment. Jordan et al (2003) stated that these programmes are focused on modifying nurses' behaviours and lifestyle without making any changes at the hospital or in clinical practice settings.

Utilizing concepts of the transactional stress model, signs and symptoms of disorders can be classified into three major categories, primary (for those who do not have any symptoms or actual disorders), secondary (for people with actual signs and symptoms), and tertiary for people who needs rehabilitation. In this study in the pre-test, which includes 296 nurses (176 males, 120 female), it was found that in almost equal rates, 25% had a mild level of burnout, 50% had moderate level, while, 25% had a high level of burnout. This infers that almost 75% of the sample had a moderate to severe level of burnout that can be, according to transactional theory, categorized into secondary and tertiary levels.

In this study, the components of the intervention were selected based on the integrated results from the literature review and the results reported from the pre-test. According to the literature, the most effective techniques reported to be effective in managing burnout among nurses were social support, relaxation techniques, assertive communication skills and environmental mastery. For the purpose of this study, the research team, that is the three people who delivered the intervention were deemed to have the necessary skills to facilitate the learning of these techniques on the part of participants. In other words, the programme was tailored to manage burnout utilizing the qualifications, skills and experience of the research team, evidence from the literature review and the resources

available. The research team utilized the available resources at the institution. However, they also had to consider the limitations regarding extraneous factors that may impact on the nurses' stress levels; for example; salary, allocation of workload, and the physical work environment. The programme utilized and promoted various forms of educational approaches, particularly those which were interactive and recommended and reported on in the literature. The intervention addressed signs and symptoms of burnout, effective coping strategies to manage burnout, practicing progressive relaxation techniques combined with visual imagery, enhancing interpersonal skills, and assertive communication skills.

The most common burnout measures

For this study, the MBI was used to measure burnout. This section provides further details on the MBI, and gives a rationale for its selection. With an increasing general consensus on the definition of burnout, a number of models have been created by various authors to measure burnout, based on a self-report survey/ questionnaire design (Maslach et al., 2001). Four will be briefly considered: The Copenhagen Burnout Inventory (CBI), The Pines' Burnout Measure (BM), The Shirom-Melamed Burnout Questionnaire (SMBQ), The Oldenburg Burnout Inventory (OBI) and the Maslach Burnout Inventory (MBI).

The Copenhagen Burnout Inventory (CBI)

The CBI model was developed to overcome perceived weaknesses with the MBI (Milfont et al., 2008) and formed part of the Project on Burnout, Motivation, and Job Satisfaction (PUMA) study which examined burnout levels among human service workers in Copenhagen (Kristensen et al., 2005). It comprises a 19-item questionnaire which assesses three sub-dimensions relating to burnout. The first of these dimensions consists of six items and is linked to measuring physical and psychological fatigue and exhaustion regardless of their association with work. The second dimension contains seven items and covers work-related burnout measuring the amount of physical and psychological fatigue related to work. The third dimension comprises six items, is client-related, and assesses burnout levels based on the degree of physical and psychological fatigue experienced by people who work with clients.

The CBI has been used in many countries and regions, having been translated into over eight languages (Kristensen et al., 2005) such as Japanese (Odagiri et al., 2004) and English

(Biggs & Brough 2006). The Copenhagen Burnout Inventory is a measure of burnout consisting of three scales and 19 items that measure different dimensions of burnout. The benefits of using this measurement are that it is reliable and valid, however this was not utilized in this study as another measure was considered to be better.

The Pines' Burnout Measure (BM)

One of the most commonly used measures, after the BMI is the Burnout Measure (BM), which was developed by Pines and Aronson (1988), and has been used in approximately 5% of burnout studies (De Silva et al., 2009). This model measures burnout by totaling the 21 items into one single score. BM consists of three exhaustion measurements: physical, emotional, and mental exhaustion. Respondents rate the frequency of their experiences about work or personal life, how they feel today or in general. Answers are provided on a Likert Scale, made up of 7 levels ranging from 1 (never) to 7 (always). Internal consistency of the scale is high, going from 0.91 to 0.93. Although BM has acceptable internal consistency, issues on one dimensionality exist. In addition, BM assesses the non-specific affective component of burnout (i.e. exhaustion) and should therefore be supplemented by a scale that measures the attitudinal component of the syndrome. The MBI can address the above mentioned issues as it can be employed as a reliable and valid multi-dimensional indicator of burnout in professionals who work with people.

The Shirom-Melamed Burnout Questionnaire (SMBQ)

The Shirom-Melamed Burnout Questionnaire (SMBQ) was developed as an alternative method of measuring exhaustion, or the diminishment of energy and resources, irrespective of the work context (Shirom & Melamed, 2006). The SMBQ consists of three dimensions which cover physical fatigue, emotional exhaustion, and cognitive weariness (Shirom et al., 2006). The instrument has 22 items, each rated on a 7-point Likert scale (1 being almost never and 7 almost always), with mean scores in excess of 4.0 indicative of major burnout symptoms (Soares et al., 2007). Although SMBQ offers the opportunity to identify potential clinical cases of burnout and has modern measurement standards, validity studies using this method are still lacking in other countries. However, this method was not chosen as it was not seen to be as effective as the Maslach Burnout Inventory (MBI).

Oldenburg Burnout Inventory (OLBI)

Oldenburg Burnout Inventory (OLBI) is a new measure of burnout, which was originally developed in German. In the workplace, burnout is the psychological experience, which comprises of attitude, feelings, expectation and motives. The underpinning premise is that psychologically burnout is a negative experience, which leads to discomfort, distress, work related problems and dysfunction. The OLBI comprises of both positively and the negatively worded items to assess two core dimensions of burnout which are disengagement from labour and exhaustion. Withdrawal occurs when an individual distances himself or herself from work due to continued work demands. It also includes experiencing negative attitudes towards work, where a person is not happy with what he or she is doing. In addition, exhaustion is the consequences of intense cognition, physical and efficient strain (Bährer-Kohler, 2012). Exhaustion occurs due to prolonged exposure to work demands, and long-term exposure to clinical practice.

The OLBI has been identified as having convergent validity and factorial validity with the Maslach Burnout Inventory-General (MBI) survey. The positives of using the OLBI are that the dimensions for disengagement and for exhaustion are reliable. However, regarding the internal consistency of the two subscale there are no substantial differences. The OLBI can be used to measure both the level of work engagement and assess burnout simultaneously, while other measures of burnout only assess one activity, for example, Maslach Burnout Inventory only assesses burnout (Gatchel& Schultz, 2012). However, some authors have found a non-significant relationship between exhaustion and work pressure (Jimenez and Dunkl 2017), suggesting the work stress and exhaustion components of the OLBI being related, is a hypothesis. It is for this reason the OLBI was dismissed for use in this study.

Maslach Burnout Inventory (MBI) questionnaire

The Maslach Burnout Inventory (MBI) questionnaire has consistently been used to measure burnout levels among mental health nurses (Maslach, et al., 1996). The MBI is composed of a 22-item scale designed to measure three dimensions of burnout: Emotional Exhaustion (EE) (9 items), Depersonalization (DP) (5 items), and Personal Accomplishment (PA) (8 items). The emotional exhaustion subscale represents the basic individual stress dimension of burnout. It refers to feelings of being overextended and depleted of one's emotional and physical resources. The depersonalization subscale

represents the interpersonal context dimension of burnout. It refers to a negative or excessively detached response to various aspects of the job. The personal accomplishment subscale represents the self-evaluation dimension of burnout. It refers to feelings of incompetence and a lack of achievement and productivity at work (Maslach, et al., 1996; Maslach, et al., 2001). Each item is scored on a seven-point Likert scale ranging from 0 "never"-to-6 "everyday". Responses are totaled to obtain separate score for each of the three subscales, or the total score for the inventory. For the emotional exhaustion and depersonalization subscales, high scores reflect a high level of burnout, whilst for the personal accomplishment subscale; high scores reflect a low level of burnout (Maslach & Jackson, 1981). This instrument is designed to assess various aspects of burnout among human services professions, with various psychometric properties showing high reliability and validity (Maslach & Jackson, 1981). Psychometric properties support the use of this tool in burnout research. Alpha was 0.853, showing internal consistency for the questionnaire. The Arabic version of the MBI has good reliability (internal consistency reliabilities were 0.91, 0.84, and 0.88 for EE, DA, and PA respectively) (Hamaideh, 2012).

Choosing to use the MBI

There is no accord on the estimation of burnout. The MBI (Maslach & Jackson, 1981) is the most generally utilized instrument for measuring burnout. Different researchers have affirmed the MBI as a valuable tool for exploring burnout (Greenglass et al., 2001; Hastings et al., 2004), and support the three dimensionalities of the MBI (Evans & Fischer, 1993). Some have proposed seeing it as one-dimensional (Brenninkmeijer & VanYperen, 2003; Halbesleben & Buckley, 2004), as a result of its solid prescient properties (Aiken et al., 2002; Aiken & Sloane, 1997). Researchers have raised concerns about the presence of burnout in nations with various hierarchical structures, and about the capacity of examination instruments for the most part, and the MBI specifically, to identify burnout in those settings.

In light of this, and the Arabic version of the MBI having good reliability, the MBI was believed to be the best tool for this study. More specifically the Maslach Burnout Inventory (MBI) was selected to measure burnout among mental health nurses in Saudi Arabia for a number of reasons: (1) it is widely acknowledged as an accurate instrument for the measurement of burnout indicators among nursing professionals (Weckwerth & Flynn, 2006); (2) the MBI has been utilised in a number of Arabic-speaking countries, where studies have been conducted to assess burnout levels among nurses (Hamaideh, 2011; Al-

Turki et al, 2010); (3) it is supported by a considerable and substantive body of empirical data which highlights its credibility and validity; (4) it is regarded as being highly relevant to human service professions, and delineates burnout using three distinct subscales (EE, DP, & PA) (Bahner & Berkel, 2007); (5) it is relatively quick to administer and can be completed in approximately 10 -20 minutes, and finally; (6) the scoring key is straightforward to use which facilitates both ease and speed of scoring for the researcher when assessing small or large volumes of data. In order to achieve greater levels of accuracy, it is imperative to carefully scrutinise data so as to deduce accurate recommendations or conclusions.

Reliability and Validity

The questionnaires used in this study were in English and Arabic as the majority of health care workers in Saudi Arabia are expatriates from a variety of countries and the formal, and prevalent language used in Saudi hospitals is English; at work, in training, and in universities teaching students medicine (Aboul-Enein, 2002; Suliman & Tadros, 2011; Tumulty, 2001). One of the professional bodies in Saudi Arabia for nurses wishing to register and work there is called the Saudi Commission for Health Specialties (SCHS). The SCHS administers examinations in English to ensure that its candidates reach the required level of proficiency and are able to provide a high quality nursing care using the latest technology (SCHS, 2014). Finally, all hospitals in Saudi Arabia typically follow an American or British system, and so English (which is employed in both systems) becomes a prerequisite for nurses looking to operate effectively in this system.

When mentioning measurement philosophy in research, reliability and validity are regarded as being the two primary concepts which provide a benchmark for assessing research, both in terms of the measurement methods employed and the data that has been collected. Cohen et al. (2000, p. 117) suggest that “*reliability is synonymous with being consistent and replicable over time. For research to be considered reliable, it should have the ability to be conducted numerous times, with similar conditions and similar groups, producing the same results.*” The majority of previous studies conducted in this area demonstrated internal consistency in their data when using the MBI, as well as offering in-text citation confirming the validity of the MBI. Consequently, the overwhelming majority of the studies using the MBI showed a consistency in the measurement of the instrument content above .07, demonstrating an acceptable level of agreement.

When research has internal consistency, this makes it easier for findings to be compared across or with other studies, providing a solid foundation for any future burnout research. The final point worth mentioning is that the instrument used in this study demonstrated a high level of agreement using Cronbach's Alpha, which compared well to previous studies that ranged from between 0.7 and 0.8. Using Cronbach's Alpha produced a result of 0.857, indicative of its high level of agreement (see appendix L).

Factor analysis

To ensure that the scale is multifactorial, a preliminary exploratory factor analysis was conducted. The analysis showed that one factor model is adequate to explain the model of the scale with an eigenvalue of 8.9 and total variance of 40.8%. This indicates that one factor model is the best model for the scale. However, to examine whether the scale can explain the three subscale, the analyses, although four-factor model with an eigenvalue of 1.0 or more, showed the total variance of the three factors model to be more robust with an accumulative variance of 57.6% compared to four factor model of 62.3%. The presence of variance added by factor one to two (10.9%) and from two to three (5.8%) is much more valuable than from three to four (4.7%). In conclusion, the scale is best explained by a one factor model and does support the three factor model considering the subscales.

Demographics characteristics

All participants completed a demographic questionnaire encompassing the following factors: age, gender, marital status, monthly income, educational level, years of experience, years of mental health nursing experience, ward, ward caseload, type of shift-work, attendance at any mental health workshops, position held. Intention to leave the current job/position was assessed by asking the following question; "Do you have any intention to leave the current job/position in the near future".

Ethical Considerations

As this study involved human participants the researcher needed to take a number of ethical considerations into account. Wellington (2000) suggested "*ethical concerns should be at the forefront of any research project and should continue through the write-up and dissemination stages*" (p.3). The researcher, in addition to getting the required ethical approval from the University of Salford (see appendix D) also had to obtain permission from Alaml complex authorities in Saudi Arabia (appendix E). This permission, which

allowed the researcher access to the participants, was obtained from the director of the complex.

Informed consent

Informed consent refers to the process by which the participants are informed about the study and are assured about their rights in choosing whether or not they want to take part (International Council of Nurses, 1996). An invitation letter (appendix G) and information sheet detailing the study (appendix H) was given to all potential participants to aid their decision making as to whether or not they wanted to participate. The information sheet also explained the broad purpose of the study, identified the researcher, and encouraged the participants to ask questions and seek clarification before making their final decision. In addition to the afore mentioned written information, the researcher verbally explained the purpose of the research and assured potential participants that their data would be strictly confidential indicating that it would only be used for the purposes specified. Once they decided to participate in the study each participant was asked to sign a consent form, which they were given a copy of for their own record (appendix I).

Data Analysis

Statistical Package for Social Sciences (SPSS) version 22 was used to help analyse data obtained for this study. Central tendency measures (means, and medians) and dispersion measures (standard deviation and ranges) were used to assess the effect of the educational programme described above, whilst descriptive statistics were used to identify the demographic characteristics of nurses in the intervention and control group. Histograms and scatter plots were used to perform descriptive analysis of the variables by looking at the frequency distribution.

The following statistical tests were used to answer the study questions:

1. What are the levels of burnout as a whole, and in the subscales of emotional exhaustion, depersonalization, and personal accomplishments among mental health nurses in Saudi Arabia?

To answer this question central tendency measures (means, and medians) and dispersion measures (standard deviation and ranges) were used.

2. What are the predictors of burnout among mental health nurses in Saudi Arabia?

This question was answered by using Stepwise multiple regression analysis to explore variables that may predict the three constructs of burnout measured by the MBI (EE, PD, and PA) (Polit & Beck, 2012).

3. What is the effect of implementing a burnout prevention programme on burnout reduction among mental health nurses in Saudi Arabia at one, three and six months' follow-up after attending the program?

Repeated measures were used to investigate changes within the burnout constructs at four time points: before the intervention, one, three and six months after the intervention. Chi-square test was used to assess the significance of changes within each of these domains.

Summary

This chapter has discussed the methodology adopted in this research. Brief consideration was given as to why this research had adopted a positive approach that was using quantitative methodology. It discussed the MBI, and the reasons for choosing this tool for data collection over others, as well as highlighting the advantages of this inventory. This chapter has also offered a brief description of the research sample, pilot study, and the data collection process. Latterly, this chapter discussed ethical considerations followed by a description of data analysis using SPSS software and identified a variety of statistical tests used in order that the research questions could be accurately answered.

CHAPER SIX: RESULTS

Introduction

This chapter presents the results of this quantitative study. In this chapter, descriptive statistics have been used to describe the data and sample. These statistics includes frequencies, percentages, mean, standard deviation, minimum, and maximum. Also, inferential statistics were used to assess and evaluate statistically significant differences in the total burnout score and its associated subscales (EE, DP, PA). Prior to conducting the inferential statistics, the entire data was assessed for normality using Shapiro-Wilk and histograms (Cohen et al., 2011; Field, 2013). Parametric statistics were conducted on continuous and normally distributed data. These statistics include independent samples t-tests and repeated measure analysis of variance (ANOVA). Assumptions for the use of these statistics were assessed. For example, the assumption of sphericity was assessed prior to conducting repeated measures ANOVA. Sphericity is the assumption that all the variances of the different time points are homogenous (Pallant, 2010). This was checked using Mauchly's Test. The variances were found to be significant; therefore, a Greenhouse-Geisser correction was used to reduce the effect of type-1 error (Field, 2013). In instances where there were statistically significant differences between means, effect sizes were calculated to assess the magnitude of the differences. Cohen's (1988) classification of effect sizes was used to interpret effect sizes; $d=0.1$ (small), $d=0.5$ (medium), and $d=0.8$ (large). Chi-squared test for independence was used to compare means of categorical data and data that deviated from normality. P value was set at 0.05.

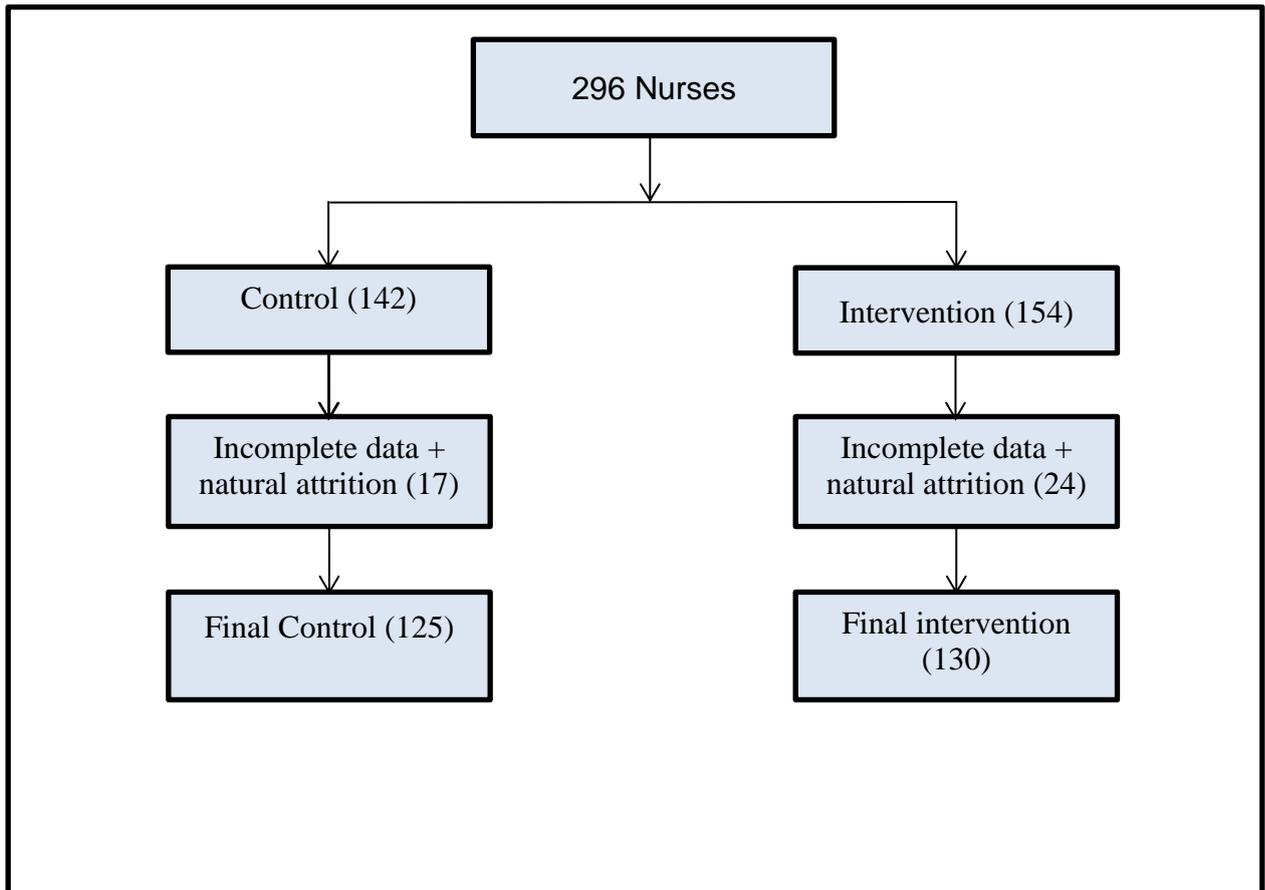
In addition, to assess the characteristic variables that may predict burnout among mental health nurses in Saudi Arabia, a standardised multiple regression analysis was used on all three burnout subscales individually. Independent (or predictor) variables used in this study included; age, gender, marital status, income, degree, mental health experience, ward, shift, cases, position, workshop, and intention to leave. Before undertaking multiple regression analysis, preliminary analysis was conducted to find out which predictors were highly correlated with each burnout subscale, so that they could be entered into the regression models. The results of the multiple regression analysis were presented in words and tables; odds ratio, 95% confidence interval (CI), and probability (p) values. The relationship between nurses' emotional exhaustion, depersonalisation, and personal accomplishment and nurses' age, level of income, years of experience in nursing, years of experience working in mental health, and number of patients assigned to a nurse, were investigated

using a Pearson product-moment correlation coefficient (r). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity (Field, 2013). Also, the percentage of variance R^2 (%) was calculated. The correlation was conducted for both the nurses in the control and the intervention group. The following were used to interpret the strength of the correlation; $r=0.1-0.29$ (small), $r=0.30-0.49$ (medium), and $r=0.50-1.0$ (large) (Cohen, 1988).

Data cleansing

Data were analysed using the procedures outlined in the previous section. Data was initially obtained from 296 nurses. The nurses consisted of 154 in the intervention group and 142 in the control group. However, some of the nurses did not complete all the questionnaires. In total 41 nurses were unable to participate due to vacation, absence from work, and some not completing the questionnaires. This resulted in a few incomplete responses which were deleted. This reduced the sample to 255. The results of the data analysis of these nurses were used to address the first two research questions. For the third research question, which involved the use of repeated measures and paired samples, data from 255 nurses (130 in intervention group, and 125 in control group) was used. As a result, only data from the nurses who participated in the pre-intervention, 1-month post-intervention, 3 months' post-intervention, and 6 months' post-intervention were included in the analysis. These are presented in figure 4.

Figure 4. Flow chart showing number of nurses in each group.



Demographic characteristics of the nurses in the intervention group

More than half 81 (52.6%) of the nurses in the intervention group were males, whereas 73 (47.4%) were females. The mean age and standard deviation (SD) of the nurses was 29.84 ± 5.41 . The majority of the nurses 101 (65.6%) were married, while 53 (34.4%) were single. The mean annual income was 9983.82 Saudi Arabian Riyal (SAR). There were huge discrepancies between the annual incomes of the nurses. These were reflected in the large standard deviations ($SD = 2584.83$) of the nurses' annual income. The vast majority 146 (94.8%) of the nurses had a diploma, while eight (4.5%) had a bachelor degree. The mean years of experience in nursing was 3.88 ± 4.18 . Of the nurses in the intervention group 86 (53.2%) were at the psychiatric unit, 32 (20.8%) were at the addiction unit, 29 (18.8%) were at the emergency department, and 7 (4.5%) were working on wards delivering care to those with chronic mental health illnesses. Most of the nurses 129 (83.8%) rotated between

A, B, and C duty shifts, while 22 (14.3%) were fixed on A shift, 2 (1.3%) were fixed on B shift, and 1 (0.6%) was fixed on C shift. The mean number of patients assigned to the nurses was 12 (20.83%). Only 4 (2.6%) of the nurses had a managerial position. All the nurses, 154 (100%) in the intervention group had never previously attended workshops regarding burnout. Of the nurses in the intervention group, 103 (66.9%) had no intention to leave working in mental health profession, and 51 had said yes to intention to leave.

Demographic characteristics of the nurses in the control group

Majority 95 (66.9%) of the nurses in the control group were males, whereas 47 (33.1%) were females; with a mean age and standard deviation of 29.80 ± 4.10 . The vast majority 100 (70.4%) of the nurses were married, while 42 (29.6%) were single; with a mean annual income of 11035.04 SAR. Also, there were huge differences in the nurses' annual income ($SD = 2658.27$). When the educational levels of the nurses were assessed, most of the nurses, 126 (88.7%), had a diploma in nursing, while 13 (9.2%) had a bachelor degree. The mean years of experience in nursing was 7.11 ($SD = 4.87$), and the mean experience in working in mental health settings was 5.32 ($SD = 3.46$). Of the 142 nurses in the control group 50 (35.2%) were working at the acute psychiatric unit, 28 (19.7%) worked at the addiction unit, 27 (18.3%) were in the emergency department, and 27 (18.3%) on a ward delivering care for those with chronic illness. Regarding shifts, 92 (64.8%) of the nurses rotated between A, B, and C duty shifts, while 34 (23.9%) were fixed on A shift, 9 (6.3%) were fixed on B shift, and 7 (4.9%) were fixed on C shift. The mean number of patients assigned to the nurse was 17.51 ± 8.54 . Only 13 (9.2%) of the nurses held managerial positions. Of the 142 (100%) nurses in the control group none had previously attended workshops regarding burnout. Additionally, 49 (34.5%) of them had no intention to leave mental health profession, and 93 had said no intention to leave.

Research question one:

What are the levels of burnout as a whole, and in the subscales of emotional exhaustion, depersonalisation, and personal accomplishments among mental health nurses in Saudi Arabia?

Intervention group

The overall levels of burnout, EE, DP, and PA among nurses in the intervention group are presented in table 5.

Table 5. Mean and standard deviation of the burnout scale and subscales of the intervention group.

Variables	Mean±SD	Minimum	Maximum	Associated Level
Emotional exhaustion	34.79±9.37	0	51.0	High
Depersonalisation	14.23±11.0	0	27.0	High
Personal accomplishments	22.12±15.5	8.0	47.0	Low
Total Burnout	71.14±9.85	36.0	104.0	High

The nurses had high emotional exhaustion and depersonalization scores, and low personal accomplishments scores. Overall, they had a high total burnout score.

78 (41.6%) of the nurses in the intervention group had moderate levels of burnout, 38 (27.65%) had mild levels of burnout, and 38 (30.65%) had high levels of burnout. The results of the subscales revealed that 81 (52.6%) of the nurses in the intervention group had moderate level of emotional exhaustion, 37 (24%) had high levels of emotional exhaustion, and 36 (23.4%) had mild levels of emotional exhaustion. Similarly, 82 (53.2%) of the nurses had moderate levels of depersonalisation, 37 (24%) had mild levels of depersonalisation, and 35 (22.7%) had high levels of depersonalisation. The results of the analysis also showed that more than half, 85 (42.2%) of the nurses in the intervention group had moderate levels of personal accomplishment, 37% (n= 37) had low level of

personal accomplishment, and a small number, 32 (20.8%) had high levels of personal accomplishment

Control group

The level of overall burnout, the emotional exhaustion, depersonalisation, and personal accomplishment levels among nurses in the control group are presented in table 6.

Table 6. Mean and standard deviation of the burnout scale and subscales of the control group.

Variables	Mean±SD	Minimum	Maximum	Associated Level
Emotional exhaustion	31.63±11.05	3.0	50.0	High
Depersonalisation	12.93±5.51	0	24.0	High
Personal accomplishments	21.72±9.62	9.0	48.0	Low
Total Burnout	66.28±11.36	31	108	High

The nurses had high emotional exhaustion and depersonalization scores, and low personal accomplishments scores. Overall, their total burnout score was high.

Of the 142 nurses in the control group 76 (39.5%) had moderate levels of total burnout, 34 (32.9%) had mild levels of burnout, and 32 (27.6%) had high levels of burnout. More than half, 75 (52.8%), of the nurses had moderate levels of emotional exhaustion, 34 (32.9%) had high levels of emotional exhaustion, and 33 (23.2%) had mild levels of emotional exhaustion. Moreover, the results of the study indicated that 86 (60.6%) of the nurses in the control group had moderate levels of depersonalisation, 29 (20.4%) had mild levels of depersonalisation, and 27 (19%) had high levels of emotional exhaustion. When the levels of personal accomplishment were assessed, 82 (57.7%) had moderate levels of personal accomplishment, 32 (22.5%) had high levels of personal accomplishment, and 28 (19.7%) had low levels of personal accomplishment.

Inferential statistics

Comparing mean burnout scores at baseline of nurses in the intervention and control groups

A parametric independent-samples t-test was conducted to compare the burn out score at baseline between the nurses in the control and the intervention group. There was statistically significant difference in the burn out score at baseline between the nurses in the intervention group ($M = 71.13$, $SD = 11.18$) and the control group ($M = 66.28$, $SD = 11.36$); $t(294) = 3.70$, $p=0.00$ (two-tailed). The magnitude of the differences in the means (mean difference =4.85, 95% CI: 2.27 to 7.42) was small (Cohen's $d = 0.33$).

In addition, differences between the intervention and control groups at baseline in burnout scores were assessed using Chi-square test for independence in relation to gender, type of ward nurses' were working on, shift pattern, and position. The results of the Chi-square test for independence indicated that there were statistically significant differences in the burnout scores between the control and intervention group related to gender, type of ward nurses were working on, shift pattern, and position; ($\chi^2 = 6.27$, $p = 0.01$; $\chi^2 = 22.68$, $p < 0.001$; $\chi^2 = 17.26$, $p = 0.001$; $\chi^2 = 5.87$, $p = 0.02$, respectively). However, there were no statistical significant differences in burnout scores ($p > 0.05$) between the control and intervention group related to marital status, level of education, or intention to leave ($\chi^2 = 0.79$, $p = 0.39$; $\chi^2 = 3.79$, $p = 0.15$; $\chi^2 = 0.06$, $p = 0.81$, respectively). These statistics are presented in Table 7.

Table 7. Differences between burn out score at baseline between intervention and control groups

Subject characteristic		Intervention group	Control group	Chi square	
				Test Statistics	<i>p-value</i>
Gender	Female	73	47	6.27	0.01
	Male	81	95		
Marital status	Single	53	42	0.79	0.39
	Married	101	100		
Educational level	Diploma	146	129	3.79	0.15
	Bachelor's	8	13		
Ward	emergency	29	26	22.68	0.001
	chronic	7	32		
	psychiatric	86	56		
	addiction	32	28		
Duty shift	A	22	34	17.26	0.001
	B	2	9		
	C	1	7		
	Rotating	129	92		
Position	Administrator	4	13	5.87	0.02
	Nurses	150	129		
Intention to Leave	Yes	51	49	0.06	0.81
	No	103	93		

There is a significant difference between males and female participants in both the control and the intervention groups. Within shifts there is a larger number of nurses on a rotating shift pattern for the intervention group than the control group, this was found to be statistically significant. There are less administrators and more nurses in the intervention group compared with the control group.

Intervention group

The relationships between emotional exhaustion, age, income, years of experience working in psychiatry, level of education, and number of patients assigned to a nurse, were investigated using a Pearson product-moment correlation coefficient (r). Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

The results indicated that there was a small positive correlation between nurses' emotional exhaustion and income ($r=0.25$, $p = 0.002$), and 0.063 coefficient of determination (R^2). This resulted in a 6.3% shared variance between nurses' emotional exhaustion and their level of income. Similarly, the results indicated that there was a small positive correlation between nurses' emotional exhaustion and number of patients assigned to them ($r = 0.24$, $p = 0.003$), and 0.058 coefficient of determination (R^2). This resulted in a 5.8% shared variance between nurses' emotional exhaustion and the number of patients assigned to them.

However, there was a negative correlation between nurses' emotional exhaustion and years of experience in nursing ($r = -0.23$, $p = 0.004$), and 0.053 coefficient of determination (R^2). This resulted in a 5.3% shared variance between nurses' emotional exhaustion and their years of experience. There was also a negative correlation between nurses' emotional exhaustion and level of education in nursing ($r = -0.15$, $p = 0.05$), and 0.225 coefficient of determination (R^2). This resulted in a 2.25% shared variance between nurses' emotional exhaustion and their degree. All of these results are summarised in Table 8.

Table 8. Correlation statistics between total emotional exhaustion score and nurses' demographic statistics.

<i>Demographics</i>	<i>Emotional exhaustion score</i>		
	<i>R</i>	<i>R</i> ² (%)	<i>P</i> <i>value</i>
<i>Age</i>	0.08	0.64	0.308
<i>Income</i>	0.25	6.3	0.002
<i>Education level</i>	- 0.15	2.25	0.05
<i>Years of general experience</i>	- 0.23	5.3	0.004
<i>Number of patients assigned to nurse</i>	0.24	5.8	0.003

Those with a higher salary, higher educational qualifications and more experience in mental health have a lower burnout score, However, those with a higher number of patients have a higher level of burnout than those with fewer assigned to them.

To examine the relationship between depersonalisation and selected demographics, Pearson product-moment correlation coefficient (r) was calculated. The results indicated that there was a small positive correlation between nurses' scores in depersonalisation and income ($r=0.09$ $p = 0.29$), and 0.81 coefficient of determination (R^2). This resulted in a 1.0% shared variance between nurses' depersonalisation and their level of income. Similarly, the results indicated that there was a positive correlation between nurses' scores in depersonalisation and number of patients assigned to them ($r = 0.07$, $p = 0.36$), and 0.05 coefficient of determination (R^2). This results in a 0.5% shared variance between nurses' depersonalisation and the number of patients assigned to them. Also, there was a negative correlation between nurses' scores in depersonalisation and years of experience in nursing ($r = -0.4$, $p=0.000$), and 0.16 coefficient of determination (R^2). This resulted in a 16.0% shared variance between nurses' depersonalisation and their years of experience. There

was a negative correlation between nurses' depersonalisation and level of education in nursing ($r = -0.19$, $p = 0.02$), and 0.36 coefficient of determination (R^2). This resulted in a 3.6% shared variance between nurses' depersonalisation and their degree. All of these results are summarised in Table 9.

Table 9. Correlation statistics between nurses' depersonalisation score and selected demographics statistics.

<i>Demographics</i>	<i>Depersonalisation score</i>		
	<i>R</i>	<i>R²</i> <i>(%)</i>	<i>P</i> <i>value</i>
<i>Age</i>	- 0.08	0.64	0.35
<i>Income</i>	0.09	0.81	0.29
<i>Education level</i>	- 0.19	3.61	0.02
<i>Years of general experience</i>	- 0.40	16	0.00
<i>Number of patients assigned to nurse</i>	0.07	0.5	0.36
<i>Position</i>	- 0.19	3.61	0.01

Those with more experience and a higher education have a lower depersonalisation score, as well as the higher position of the nurses lower score.

To examine the relationship between Personal accomplishment and selected demographics, Pearson product-moment correlation coefficient (r) was calculated. The results indicated that there was a negative correlation between nurses' scores in Personal accomplishment and income ($r = -0.2$, $p = 0.02$), and 0.04 coefficient of determination (R^2). This resulted in a 4% shared variance between nurses' Personal accomplishment and their level of income. Similarly, the results indicated that there was a negative correlation between nurses' scores in Personal accomplishment and number of patients assigned to them ($r = -0.21$, $p =$

0.009), and 0.04 coefficient of determination (R^2). This results in a 4% shared variance between nurses' Personal accomplishment and the number of patients assigned to them. The results indicated that there was a negative correlation between nurses' scores in Personal accomplishment and their position within the organisation ($r=-0.20$ $p = 0.02$), and 0.04 coefficient of determination (R^2). This resulted in a 4% shared variance between nurses' Personal accomplishment and their level of position. However, there was a positive correlation between nurses' scores in Personal accomplishment and years of experience in nursing ($r = 0.33$, $p=0.000$), and 0.10 coefficient of determination (R^2). This resulted in a 10% shared variance between nurses' Personal accomplishment and their years of experience. There was a positive correlation between nurses' Personal accomplishment and their level of education in nursing ($r = 0.13$, $p = 0.001$), and 0.09 coefficient of determination (R^2). This resulted in a 9% shared variance between nurses' Personal accomplishment and their educational level of attainment. All of these results are summarised in Table 10.

Table 10. Correlation statistics between nurses' personal accomplishment score and selected demographics statistics.

<i>Demographics</i>	<i>Personal accomplishment score</i>		
	<i>R</i>	<i>R²</i> <i>(%)</i>	<i>P</i> <i>value</i>
<i>Age</i>	<i>0.002</i>	<i>0.00</i>	<i>0.98</i>
<i>Income</i>	<i>0.2</i>	<i>4</i>	<i>0.02</i>
<i>Education level</i>	<i>0.3</i>	<i>9</i>	<i>0.001</i>
<i>Years of general experience</i>	<i>0.33</i>	<i>10.9</i>	<i>0.00</i>
<i>Number of patients assigned to nurse</i>	<i>-0.21</i>	<i>4.4</i>	<i>0.009</i>
<i>Position</i>	<i>0.20</i>	<i>4</i>	<i>0.02</i>

Income, level of education, years of experience and position within the organisation all have a significant impact on the PA scores of nurses. The number of patients assigned to a nurse also has an impact on PA score, with more patients per nurse showing a lower PA score.

Control group

The relationship between the nurses' emotional exhaustion, depersonalisation, and personal accomplishment and their demographic characteristics were investigated using a Pearson product-moment correlation coefficient (r). The results are presented in table 11.

Table 11. Correlation table indicating relationships between nurses' subscales of burnout score and their demographics characteristics. Correlation statistics between total emotional exhaustion score and nurses' demographic statistics

<i>Demographics</i>	<i>Emotional exhaustion score</i>		
	<i>R</i>	<i>R² (%)</i>	<i>P value</i>
<i>Age</i>	<i>-0.15</i>	<i>2.25</i>	<i>0.17</i>
<i>Income</i>	<i>-0.11</i>	<i>1.21</i>	<i>0.05</i>
<i>Education level</i>	<i>-0.30</i>	<i>9</i>	<i>0.000</i>
<i>Years of general experience</i>	<i>-0.40</i>	<i>16</i>	<i>0.000</i>
<i>Number of patients assigned to nurse</i>	<i>0.16</i>	<i>2.65</i>	<i>0.05</i>
<i>Position</i>	<i>-0.25</i>	<i>6.25</i>	<i>0.002</i>

Those with a higher salary, higher educational qualifications and more experience in mental health have a lower emotional exhaustion score, However, those with a higher number of patients have a higher level of emotional exhaustion score than those with fewer assigned to them.

Table 12. Correlation statistics between nurses' depersonalisation score and selected demographics statistics.

<i>Demographics</i>	<i>Depersonalisation score</i>		
	<i>R</i>	<i>R² (%)</i>	<i>P value</i>
<i>Age</i>	-0.06	0.4	0.47
<i>Income</i>	-0.29	8.41	0.73
<i>Education level</i>	-0.27	7.29	0.001
<i>Years of general experience</i>	-0.26	6.76	0.001
<i>Number of patients assigned to nurse</i>	0.15	2.25	0.08
<i>Position</i>	-0.21	4.41	0.01

Those with more experience and a higher education have a lower depersonalisation score, as well as the higher position of the nurses lower score. However, those with a higher number of patients have a higher level of depersonalisation score.

Table 13. Correlation statistics between nurses' depersonalisation score and selected demographics statistics.

<i>Demographics</i>	<i>Personal accomplishment score</i>		
	<i>R</i>	<i>R² (%)</i>	<i>P value</i>
<i>Age</i>	<i>0.05</i>	<i>0.25</i>	<i>0.56</i>
<i>Income</i>	<i>0.02</i>	<i>0.04</i>	<i>0.84</i>
<i>Education level</i>	<i>0.25</i>	<i>6.25</i>	<i>0.003</i>
<i>Years of general experience</i>	<i>0.29</i>	<i>8.41</i>	<i>0.00</i>
<i>Number of patients assigned to nurse</i>	<i>-0.17</i>	<i>2.89</i>	<i>0.04</i>
<i>Position</i>	<i>0.23</i>	<i>5.29</i>	<i>0.007</i>

level of education, years of experience and position within the organisation all have a significant impact on the higher PA scores of nurses. The number of patients assigned to a nurse also has an impact on PA score, with more patients per nurse showing a lower PA score.

Differences in burnout subscales related to categorical variables (t-test)

Intervention group

A parametric independent-sample t-test was conducted to compare the subscales of burnout score among the nurses in the intervention group related to gender, marital status, position in the organisation, and intention to leave psychiatric nursing. The results indicated that there was a statistically significant difference in the emotional exhaustion scores for female nurses in the intervention group (M= 38.25, SD = 9.67) and male's nurses (M= 31.75, SD = 8.6); $t = 4.71$, $p = 0.00$ (two-tailed); and a medium effect size (Cohen's $d = 0.5$) also a statistically significant difference, in the emotional exhaustion score for position in the organisation ($t = -0.33$, $p = 0.04$). However, there were no statistically significant differences in nurses' emotional exhaustion level related to marital status ($t = -1.15$, $p = 0.25$), and intention to leave $t = 0.07$, $p = 0.94$, respectively). These results are presented in table 12.

Table 14. Differences in the emotional exhaustion among intervention group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	38.25	9.67	4.71	0.000
	Male	31.75	8.60		
Marital status	Single	33.58	10.28	-1.15	0.25
	Married	35.42	8.85		
Position	Administrator	33.25	9.54	-0.33	0.04
	Nurse	34.83	9.40		
Intention to leave	Yes	34.86	8.42	0.07	0.94
	No	34.75	9.85		

Females have a statistically significant higher EE score compared with males. Nurses have a statistically significant higher EE score compared with administrators.

Also, the analysis (table 13) showed that there was significant differences ($p > 0.05$) in the level of depersonalisation related to position ($t= 2.41$, $p = 0.007$), with the mean for administrators (Head nurse, academic nurse and managers) ($M= 7.0$, $SD = 7.35$) being less than for nurses ($M= 14$, $SD = 6.04$). Also there was no significant difference ($p > 0.05$) in level of depersonalisation relating to gender, intention to leave psychiatric nursing, and marital status ($t= 0.77$, $p = 0.843$; $t= -.664$, $p =0.503$; $t= 0.006$, $p =0.995$, respectively).

Table 15.Differences in the depersonalisation score among intervention group .

Variables		Mean	SD	Test statistics	
				t	P
Gender	Female	15.06	7.46	0.63	0.104
	Male	13.45	4.55		
Marital status	Single	14.32	5.71	0.136	0.892
	Married	14.17	6.41		
Position	Administrator	7.00	7.35	-2.41	0.007
	Nurse	14.42	6.04		
Intention to leave	Yes	13.94	6.13	-0.404	0.686
	No	14.37	6.20		

Nurses have a statistically significant higher DP score compared with administrators.

In addition, the analysis (Table 14) showed that there was a significant difference in the level of personal accomplishment in relation to position ($t=2.44$, $p =0.02$), with the mean for administrators ($M= 36.25$, $SD = 14.45$) being less than that for nurses ($M= 21.74$, $SD = 11.69$). There were no significant differences in level of personal accomplishments regarding gender, marital status, and intention to leave psychiatric nursing ($t= -1.22$, $p = 0.22$; $t= -0.15$, $p = 0.87$; $t= 0.07$, $p =0.94$, respectively).

Table 16.Differences in the personal accomplishments among intervention group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	20.89	12.49	-1.22	0.222
	Male	23.25	11.35		
Marital status	Single	21.91	11.92	-0.15	0.874
	Married	22.22	11.99		
Position	Administrator	36.25	14.45	2.44	0.02
	Nurse	21.74	11.69		
Intention to leave	Yes	22.02	10.90	-0.07	0.94
	No	22.17	12.47		

Nurses have a statistically significant lower PA score than administrators.

Control group

An independent sample t-test was used to examine the differences in the level of emotional exhaustion relating to gender, marital status, position, and intention to leave psychiatric nursing among the control group sample. The analysis (Table 15) showed that there was no significant difference in the level of emotional exhaustion related to marital status, and intention to leave psychiatric nursing; ($t= 1.46$, $p = 0.14$; $t= 0.77$, $p =0.45$, respectively). However, there was a significant difference in the level of emotional exhaustion regarding gender ($t= 2.97$, $p = 0.003$, Cohen's $d= 0.55$), with the mean emotional exhaustion score for female nurses ($M= 35.45$, $SD= 9.5$) being higher than that for male nurses ($M= 29.75$,

SD= 11.31). Also, there was a significant difference in emotional exhaustion related to position ($t= 3.10$, $p =0.002$, Cohen's $d= 0.55$), with mean for administrators ($M= 22.85$, $SD= 32.52$) being less than that for nurses ($M= 11.45$, $SD= 10.65$).

Table 17. Differences in emotional exhaustion among nurses in the control group.

Variables		Mean	SD	Test statistics	
				t	<i>p</i>
Gender	Female	35.45	9.5	2.97	0.003
	Male	29.75	11.31		
Marital status	Single	33.71	11.37	1.46	0.140
	Married	30.76	10.85		
Position	Administrator	22.85	11.45	3.10	0.002
	Nurse	32.52	10.65		
Intention to leave	Yes	32.61	11.02	0.77	0.450
	No	31.12	11.08		

Females have a statistically significant higher EE score compared with males. Nurses have a statistically significant higher EE score compared with administrators.

The results of independent sample t-tests (table 16) showed that there was no significant difference in the level of depersonalisation relating to gender, marital status, and intention to leave psychiatric nursing; ($t= 1.14$, $p=0.25$; $t=0.11$, $p=0.91$, respectively). However, there was a statistically significant difference in depersonalisation regarding gender ($t= 3.58$, $p=0.001$, Cohen's $d= 0.65$), with the mean for female nurses ($M= 15.19$, $SD= 4.84$) being higher than that for male nurses ($M= 11.81$, $SD= 5.5$). Also, there was a statistically significant difference in depersonalisation related to position ($t= 2.54$, $p =0.01$, Cohen's $d= 0.74$), with the mean for administrators ($M= 9.31$, $SD= 5.42$) being less than nurses ($M= 13.3$, $SD= 5.40$).

Table 18. Differences in depersonalisation among the nurses in the control group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	15.19	4.84	3.58	0.001
	Male	11.81	5.5		
Marital status	Single	13.74	5.76	1.14	0.25
	Married	12.59	5.39		
Position	Administrator	9.31	5.42	2.54	0.01
	Nurse	13.3	5.40		
Intention to leave psychiatric area	Yes	12.86	6.01	0.11	0.91
	No	12.97	5.26		

Females have a statistically significant higher DP score compared with males. Nurses have a statistically significant higher DP score compared with administrators.

Finally, the results of the independent sample t-tests (table 17) indicated that there were no statistically significant differences in level of personal accomplishment regarding marital status and intention to leave psychiatric nursing; ($t= 0.73$, $p = 0.47$; and $t= 0.55$, $p =0.59$, respectively). There was a statistically significant difference in level of personal accomplishment related to gender ($t= 3.80$, $p=0.001$, Cohen's $d= 0.74$), with the mean for male nurses ($M= 23.78$, $SD=10.21$) being higher than female nurses ($M= 17.55$, $SD=6.68$). In addition, there was a statistically significant difference in personal accomplishment related to position ($t= 2.74$, $p =0.007$, Cohen's $d= 0.74$), with mean for administrators ($M= 28.54$, $SD= 11.34$) being higher than that for the nurses ($M= 21.03$, $SD= 9.10$).

Table 19. Differences in personal accomplishments among the nurses in the control group

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	17.55	6.68	3.80	0.001
	Male	23.78	10.21		
Marital status	Single	20.81	9.24	0.73	0.47
	Married	22.10	9.80		
Position	Administrator	28.54	11.34	2.74	0.007
	Nurse	21.03	9.21		
Intention to leave psychiatric area	Yes	22.33	9.10	0.55	0.59
	No	21.40	9.92		

Males have a statistically significant higher PA score than females, and administrators have a higher PA score than nurses.

Differences in burnout subscales related to categorical demographic characteristics (ANOVA)

Intervention Group

A one way analysis (ANOVA) test was used to examine differences in burnout subscales related to categorical demographic characteristics (level of educational in nursing, type of ward the nurse is working on, shift pattern). The analysis (Table 18) showed that there was a significant difference in nurses' scores in emotional exhaustion related to their level of educational ($F= 2.20$, $p= 0.001$). Using post hoc comparison (Scheffe), the analysis showed that the significant difference was between those with diploma and those with a bachelor degree. The analysis showed that the mean score of nurses with diploma level education ($M= 35.42$, $SD= 9.21$) was higher than that of nurses with bachelor's degree ($M= 26.14$, $SD= 7.38$). In addition, there was a significant difference in emotional exhaustion related to shift pattern; ($F= 2.01$, $p= 0.003$). Using post hoc comparison (Scheffe), the analysis showed that the significant difference was between nurses who are rotating between A, B, and C shifts and nurses who are fixed on A shift. The analysis showed that nurses who are rotating between A, B, and C had higher scores ($M= 35.91$, $SD= 9.13$) than nurses who are fixed on A shift ($M= 28.43$, $SD= 8.70$). However, there was no significant

difference in emotional exhaustion related to nurses' area of work (type of ward) ($F= .859$, $p= 0.69$).

Table 20. Differences in emotional exhaustion related to selected demographic characteristics.

Variables		M	SD	F	<i>p</i>	Post hoc (Scheffe)
Education l degree	Diploma	35.42	9.2	2.202	0.001	Dip X BSN
	Bachelors	26.14	7.38			
Duty shift	A shift	28.43	8.70	2.01	0.003	Rotating X A shift
	B shift	35.00	1.41			
	C shift	35.91	9.13			
Working area	Emergenc y	7.52	1.4	0.859	0.69	
	Chronic	7.37	2.79			
	Psychiatri c	10.68	1.18			
	Addiction	7.50	1.33			

Those with a Diploma have a higher EE score than those with a Bachelors degree. Those who work night shifts have a higher EE than those who work shifts during the day or morning.

Control group

An independent sample t-test was used to examine the differences in the level of emotional exhaustion and its relationship to gender, marital status, position, and intention to leave psychiatric nursing among the control group sample. The analysis (Table 19) showed that there was no significant difference in level of emotional exhaustion related to marital status, and intention to leave psychiatric nursing; ($t= 1.46$, $p = 0.14$; $t= 0.77$, $p =0.45$, respectively). There was a significant difference in emotional exhaustion related to gender ($t= 2.97$, $p = 0.003$, Cohen's $d= 0.55$), with the mean emotional exhaustion score for female nurses ($M= 35.45$, $SD= 9.5$) being higher than that for male nurses ($M= 29.75$, $SD= 11.31$). Also, there was significant difference in the level of emotional exhaustion relating to position in the organisation ($t= 3.10$, $p =0.002$, Cohen's $d= 0.55$), with the mean for

administrators (M= 22.85, SD= 32.52) being less than that for nurses (M= 11.45, SD= 10.65).

Table 21. Differences in emotional exhaustion among nurses in the control group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	35.45	9.5	2.97	0.003
	Male	29.75	11.31		
Marital status	Single	33.71	11.37	1.46	0.140
	Married	30.76	10.85		
Position	Administrator	22.85	11.45	3.10	0.002
	Nurse	32.52	10.65		
Intention to leave	Yes	32.61	11.02	0.77	0.450
	No	31.12	11.08		

Females have a statistically significant higher EE score compared with males. Nurses have a statistically significant higher EE score compared with administrators.

The results of independent sample t-tests (Table 20) showed that there was no significant difference in the level of depersonalisation regarding gender, marital status, and intention to leave psychiatric nursing; ($t= 1.14, p=0.25$; $t=0.11, p=0.91$, respectively). There was a statistically significant difference in level of depersonalisation related to gender ($t= 3.58, p=0.001$, Cohen's $d= 0.65$), with the mean for female nurses (M= 15.19, SD= 4.84) being higher than that for male nurses (M= 11.81, SD= 5.5). Also, there was a statistically significant difference in level of depersonalisation relating to position ($t= 2.54, p =0.01$, Cohen's $d= 0.74$), with the mean for administrators (M= 9.31, SD= 5.42) being less than nurses (M= 13.3, SD= 5.40).

Table 22. Differences in depersonalisation among the nurses in the control group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	15.19	4.84	3.58	0.001
	Male	11.81	5.5		
Marital status	Single	13.74	5.76	1.14	0.25
	Married	12.59	5.39		
Position	Administrator	9.31	5.42	2.54	0.01
	Nurse	13.3	5.40		
Intention to leave psychiatric area	Yes	12.86	6.01	0.11	0.91
	No	12.97	5.26		

Females have a statistically significant higher DP score compared with males. Nurses have a statistically significant higher DP score compared with administrators.

Finally, the results of independent sample t-tests (Table 21) indicated that there were no statistically significant differences in level of personal accomplishment related to marital status and intention to leave psychiatric nursing; ($t= 0.73$, $p = 0.47$; and $t= 0.55$, $p =0.59$, respectively). However, there was a statistically significant difference in level of personal accomplishment related to gender ($t= 3.80$, $p=0.001$, Cohen's $d= 0.74$), with the mean for male nurses ($M= 23.78$, $SD=10.21$) being higher than female nurses ($M= 17.55$, $SD=6.68$). In addition, there was a statistically significant difference in the level of personal accomplishment related to position ($t= 2.74$, $p =0.007$, Cohen's $d= 0.74$), with the mean for administrators ($M= 28.54$, $SD= 11.34$) being higher than that for the nurses ($M= 21.03$, $SD= 9.10$).

Table 23. Differences in personal accomplishments among the nurses in the control group.

Variables		Mean	SD	Test statistics	
				t	p
Gender	Female	17.55	6.68	3.80	0.001
	Male	23.78	10.21		
Marital status	Single	20.81	9.24	0.73	0.47
	Married	22.10	9.80		
Position	Administrator	28.54	11.34	2.74	0.007
	Nurse	21.03	9.21		
Intention to leave psychiatric area	Yes	22.33	9.10	0.55	0.59
	No	21.40	9.92		

Males have a statistically significant higher PA score than females, and administrators have a higher PA score than nurses.

Predictors of burnout

Research question 2: What are the characteristic variables that may predict burnout among mental health nurses in Saudi Arabia?

The aim of this study was to identify the impact of burnout on nurses working in mental health. Within the literature a number of variables are identified, personal and organizational, that can have a direct or indirect impact on mental health nurses' stress levels. Such variables are workload, years of experience in nursing, type of shifts, nurse-patients ratio, and specialization in the field of care. The statistical process for testing these variables are expected to produce a correlation coefficient that signifies the required information needed in the field. In light of this when designing this study I decided to look at these specific variables in terms of mental health nurses working in SA.

An investigation was carried out in order to find the correlation between the impact of these variable on burnout among mental health nurses. The main objective of this investigation was to determine the degree of predictability of burnout among mental health nurses in Saudi Arabia. Thus, a multiple linear regression was used to test these given variables to make predictions about which variables to consider within this study. Kozak (2008),

justified using a correlation test suggesting it the most interesting information can be provided through using correlation; as it makes sure that the assumptions of the study have been almost met.

However, there are difficulties with combining variables related to burnout: firstly, associations between variables are complex and combining them may result in a loss of information. Secondly, they often exist independently of each other, and thirdly, the dimensions of burnout may vary accordingly throughout its different stages (Brenninkmeijer & VanYperen (2003). Therefore, in studies relating to burnout it is more useful to assess the variables separately. Even though EE appears to be a fundamental component (Brenninkmeijer and VanYperen 2003), Bakker et al (2002), describes how the BMI measures emotional exhaustion separately from physical exhaustion or fatigue. It also measures levels of depersonalisation such as excessive distancing, which can seriously impair levels of empathy and the service provided. Finally, the MBI measures personal accomplishment and the extent to which workers view themselves negatively, which is linked to poor self-esteem. Importantly, “researchers evaluating interventions to reduce burnout may wish to know precisely which burnout dimensions have (and have not) improved as a result of the intervention” (Brenninkmeijer and VanYperen 2003 p. 18).

Intervention group

A multiple linear regression was conducted to examine sociodemographic predictors of burnout among the intervention group sample (Table 22). Sociodemographic variables included in the multiple linear regression model were age, gender, marital status, income, level of educational, experience working in mental health, type of ward working on, shift pattern, number of patients assigned to nurse, position, and intention of leaving psychiatric nursing. The analysis showed that when including all socio-demographic variables (independent variables) there was significance $F_{(11, 131)} = (2.24, p= 0.01)$, with an R^2 of 0.17. This indicated that the model with independent variables explained 35% of variation in burnout scores. The model had also shown that income (Beta = -0.27, $p = 0.01$) and years of experience in nursing (Beta = -0.27, $p = 0.02$) were significant predictors of burnout, with a high income and longer experience in nursing being protective factors against burnout. The results indicated that nurses with lower income, less years of experience in nursing, a higher number of patients assigned to them and a lower educational level were more likely to report higher burnout scores than those with higher

income, more years of experience, less number of patients assigned to them and a higher level of educational.

Table 24. Regressing socio-demographic characteristics on total burnout scores among intervention group.

Model	Beta	t	P
Age	0.002	0.01	1.0
Gender	0.12	1.36	0.18
Marital status	0.04	0.42	0.68
Income	-0.27	- 2.55	0.01
Educational level	-0.03	- 0.32	0.75
Years of experience in nursing	-0.27	- 2.40	0.02
Type of ward working on	0.05	0.50	0.62
Hospital shift pattern	-0.05	- 0.53	0.60
Number of patients assigned to nurse	-0.09	- 0.83	0.41
Position in organisation	-0.10	- 1.04	0.30
Intention for Leaving psychiatric nursing	0.06	0.66	0.51
Model summary: $F_{(11, 131)} = (2.24, p= 0.01)$; $R^2 = 0.17$; Percentage of variance = 17%			

The results for sociodemographic predictor variables demonstrate higher income and more years experience are likely to result in a lower incidence of burnout.

Control Group

A multiple linear regression was conducted to predict the total burnout scores among the control group sample (table 23) based on age, gender, marital status, income, level of educational, experience in mental health nursing, type of ward working on, shift pattern, case load for a nurse, position, and intention to leave psychiatric nursing. The analysis showed that the multiple linear regression model that included all socio-demographic

variables (independent variables) was significant $F_{(11, 129)} = (1.49, p = 0.13)$. However, the model was able to explain 39% ($R^2 = 0.12$) of variation in burnout related to selected demographic characteristics. The results indicated that nurses with lower income, less years of experience in nursing, higher number of patients assigned to them, lower educational level and position in organisation were more likely to report higher burnout scores than those with higher income, more years of experience, less number of patients assigned to them, higher educational level and a higher position in the organisation.

Table 25. Regressing socio-demographic characteristics on total burnout among control

group.

Model	Beta	t	P
Age	0.01	0.09	0.93
Gender	0.04	0.41	0.68
Marital status	-0.07	- 0.66	0.51
Income	-0.35	0.07	0.05
Educational level	-0.18	- 1.96	0.05
Years of experience in nursing	-0.23	- 1.36	0.03
Working Ward	-0.04	- 0.46	0.65
Hospital shift	0.09	0.81	0.42
Number of patients assigned to nurse	0.07	0.72	0.48
Position	0.02	0.15	0.88
Intention for Leaving psychiatric area	-0.09	- 0.98	0.33
Model summary : $F_{(11, 129)} = (1.49, p = 0.13)$; $R^2 = 0.12$; Percentage of variance = 12%			

The results for sociodemographic predictor variables show higher income and more years experience equate to a lower incidence of burnout.

Research Question 3

What is the effect of implementing a burnout prevention programme on mental health nurses in Saudi Arabia immediately after attending the programme, and at one, three and six months follow-up?

To assess and evaluate the effect of implementing a burnout prevention programme on mental health nurses in Saudi Arabia, the parametric repeated measures ANOVA was used to explore the change over four time points (pre-intervention, 1 month, 3 months and 6 months post-intervention) of the three constructs (EE, DP, and PA). Repeated measures ANOVA for total burnout were used within the intervention group. The descriptive statistics and standard deviations of the mean total burnout scores of the nurses are presented in Table 24.

Table 26. Descriptive statistics and standard deviation of total burnout score of the nurses.

Variable	Mean	Standard deviation (SD)
Total burnout at 0	71.13	14.53
Total burnout at 1 month	63.15	9.85
Total burnout at 3 months	64.88	16.83
Total burnout at 6 months	66.15	12.13

The intervention group started with a higher total burnout score, however between pre test and post test 1 there was a large decrease in burnout score within this group. Between post test 1 and post test 2 (3 months post intervention) there was a small increase in total burnout score, between post test 2 and post test 3 (6 months post intervention) there was an increase in score. However, at post test 3 the intervention score still remained lower than the baseline score.

Mauchly's test indicates that the assumption of sphericity had been violated, $p \leq 0.001$, therefore multivariate tests are reported ($\epsilon = 0.64$). The results of the one-way repeated measures ANOVA shows significant changes between the total burnout scores at the four times points for all the sample together, Wilk' Lambda = 0.89, $F(3, 252) = 10.6$; $p \leq 0.001$), a large partial eta squared effect size of 0.11. Pairwise comparison, using the Bonferroni confidence interval adjustment, indicated that the highest change in nurses' burnout occurred at one month after the intervention (3.5; $p = 0.007$). In addition, there was a statistically significant difference in the total burnout score at one month and at three months (3.73, $p = 0.028$). However, the effect of the intervention between the first and third month follow-up reduced by 0.25. Similarly, the effectiveness of the intervention from the third to the sixth month was reduced by 1.57 and was statistically significant ($p = 0.011$).

Repeated measure ANOVA for emotional exhaustion within the intervention group

The descriptive statistics of the mean emotional exhaustion score (Table 25) indicated that the pre-intervention mean figure was highest among all times points. The score one-month post intervention reduced, but the mean score at three months post-intervention went up slightly. In addition, there was an increase in the total emotional exhaustion score at six months post intervention, but remained lower than the score at pre-intervention.

Table 27. Descriptive statistics and standard deviation of emotional exhaustion score of the nurses

Variable	Mean	SD
Emotional exhaustion - pre-intervention	32.92	10.64
Emotional exhaustion score - 1 month post intervention	24.55	12.79
Emotional exhaustion score - 3 months post intervention	29.27	12.81
Emotional exhaustion score - 6 months post intervention	30.29	10.02

The intervention group started with a high level of EE, however between pre test and post test 1 there was a decrease in the EE score for the intervention group. Between post test 1 and post test 2 (3 months following the intervention) there was an increase in the score, and between post test 2 and post test 3 (6 months post intervention) there was a further increase in score. However, the EE score still remained lower than the baseline score.

Mauchly's test indicated that the assumption of sphericity had been violated, $p \leq 0.001$, therefore multivariate tests are reported ($\epsilon = 0.71$). The results of the one-way repeated measures ANOVA reported significant changes between the emotional exhaustion score at the four time points for the total sample, Wilk' Lambda = 0.76, $F(3, 252) = 27.0$; $p \leq 0.000$] and large partial eta squared effect size of 0.24. Pairwise comparison using the Bonferroni confidence interval adjustment, indicated that the highest change in nurses' burnout occurred one month after receiving the intervention ($p = 0.007$). Also, there was a statistically significant difference in the total burnout score at one month and at three months ($p = 0.028$). A significant F test means there are differences or changes between the four time points (See figure 5). The highest change took place soon after the first month of intervention, the reduction being positively large, 8.373. However, the effect of the intervention between the first and the third month of follow-up was reduced by 4.7. Similarly, the effectiveness of the intervention from the third to the sixth was reduced by 1. All post-hoc comparisons indicated that there were statistically significant differences between the mean emotional exhaustion score at the four time points ($p \leq 0.05$). (Figure 5)

Figure 5. Emotional exhaustion score at the four time points.

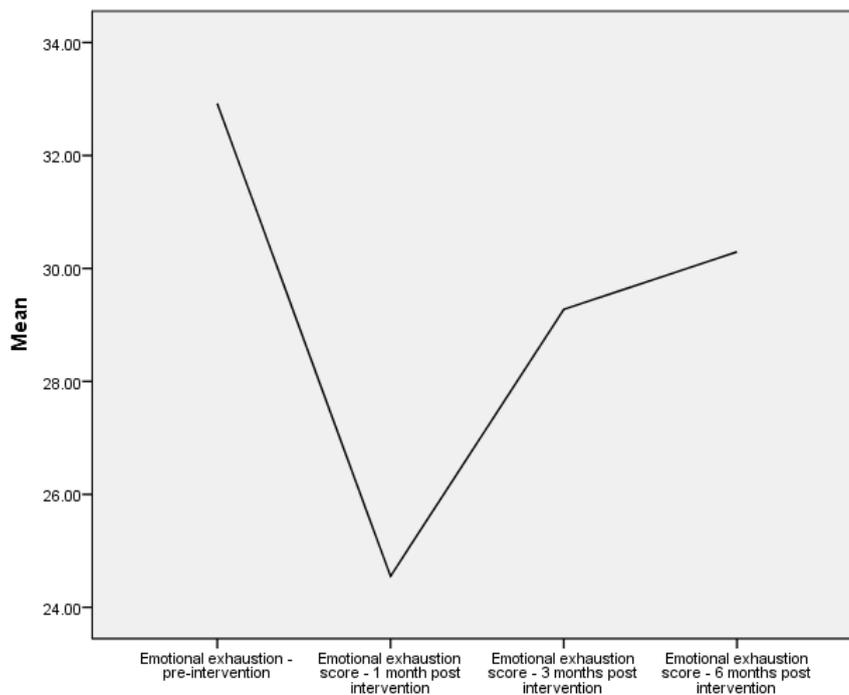
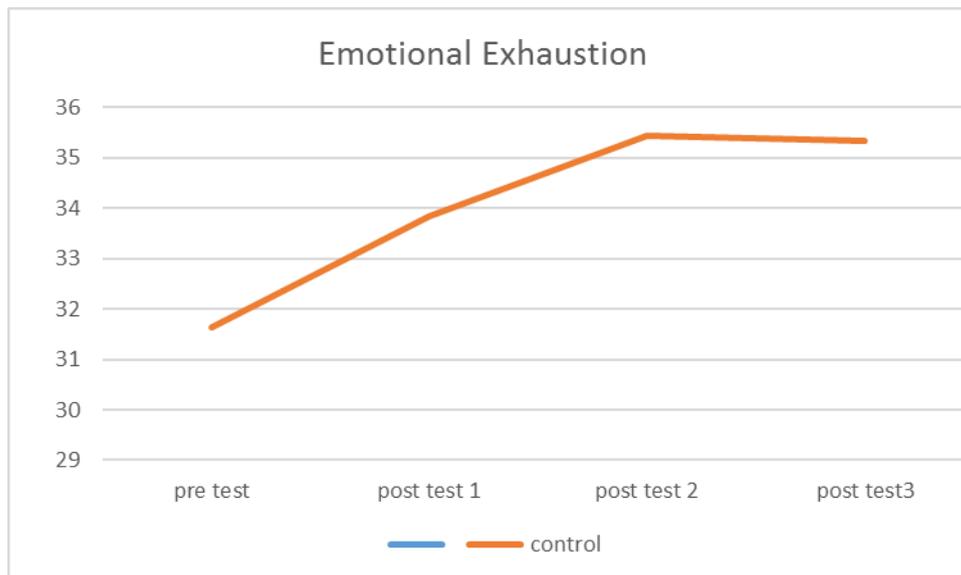
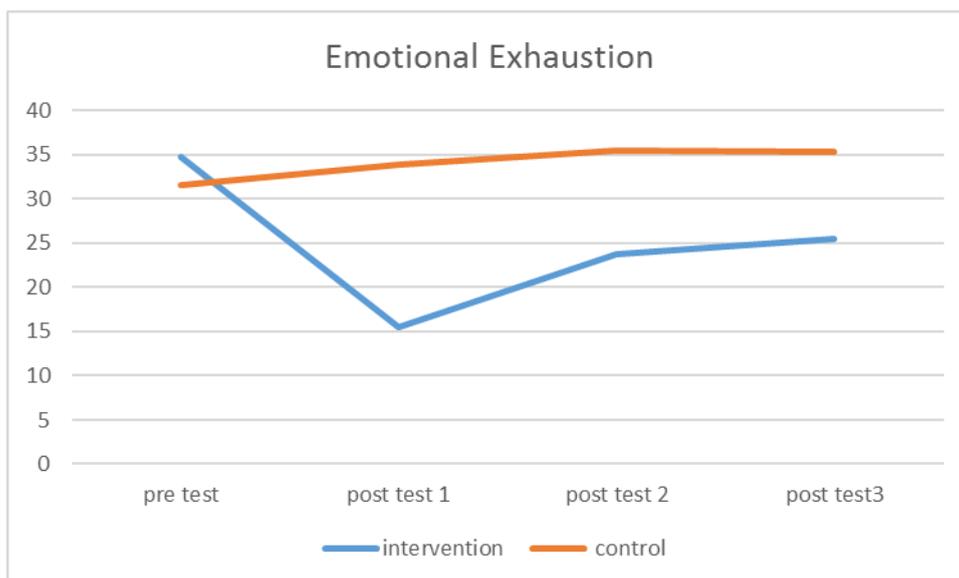


Figure 6. Results for Emotional Exhaustion for Control group at 4 time points



EE increased within the control group over the period of the study; with a larger increase between the pre-test and post-test 2, therefore indicating the EE was increasing for the nurses who were not participating in the intervention.

Figure 7. Results for Intervention and Control Group for Emotional Exhaustion



These results clearly indicate the intervention is working as the EE score is lower in the intervention group than in the control group, However, the results are indicative of the need for continued interventions as the EE scores did increase over time, although these scores did

remain lower than those for the control group. The control group scores showed little deviation throughout the study.

Depersonalisation at four time points

The mean depersonalisation score and standard deviation for the nurses at the four time points are presented in Table 26.

Table 28. Descriptive statistics and standard deviation of depersonalisation score of the nurses

Variable	Mean	SD
Depersonalisation score - pre-intervention	13.28	5.95
Depersonalisation score - 1 month post intervention	10.02	6.18
Depersonalisation score - 3 months post intervention	10.71	7.36
Depersonalisation score - 6 months post intervention	11.89	6.70

The intervention group started with a high level of DP, however between pre test and post test 1 there was a large decrease in the DP score for the intervention group. Between post test 1 and post test 2 (3 month post intervention) there was an increase in score, and between post test 2 and post test 3 (6 month post intervention) there was a further increase in score. However, the DP score still remained lower than the baseline score.

Mauchly's test indicated that the assumption of sphericity had been violated, $p \leq 0.001$, therefore multivariate tests are reported ($\epsilon = 0.63$). The results of the one-way repeated measures ANOVA reported significant changes between the depersonalisation score at the four times points, Wilk' Lambda = 0.75, $F(3, 252) = 28.75$; $p \leq 0.000$, and large partial eta squared effect size of 0.26. As shown in figure 6 below, the highest change in the mean depersonalisation score occurred after the first month post-intervention. The reduction was positively large 3.263. However, the effect of the intervention between the first and third month follow-up was negative, -0.694. Similarly, the effectiveness of the intervention from the third to the sixth was reduced by -1.173.

Figure 8. Depersonalisation at four time points

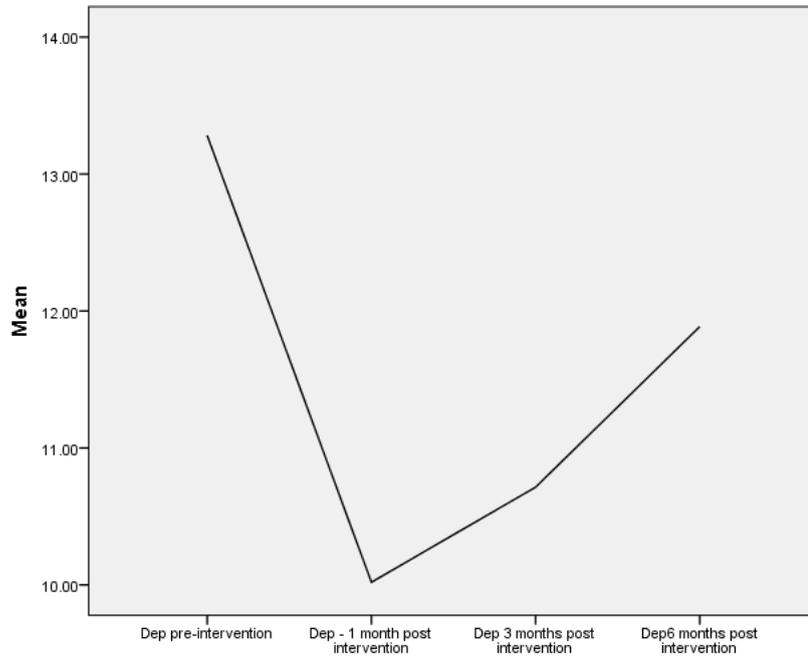
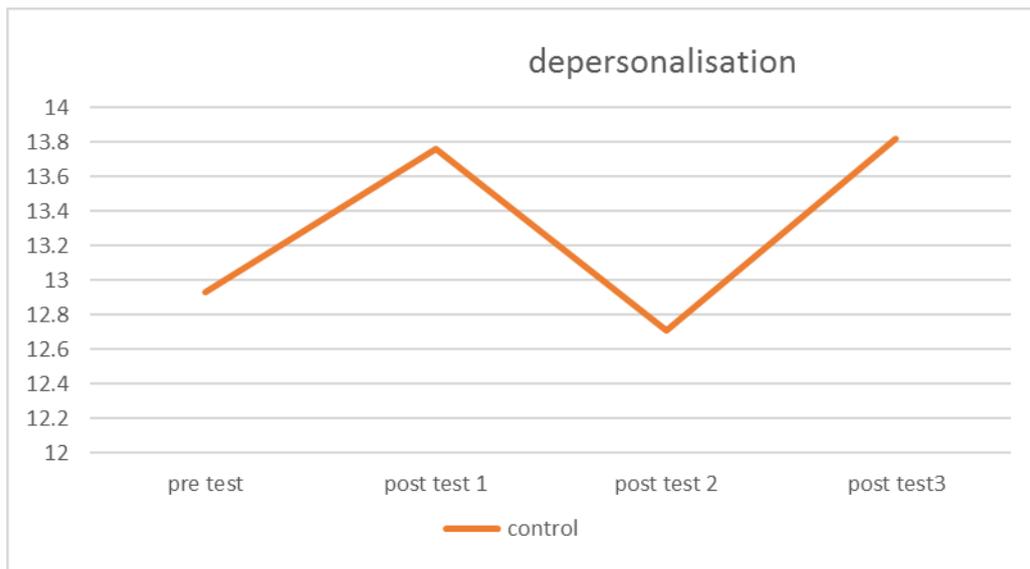
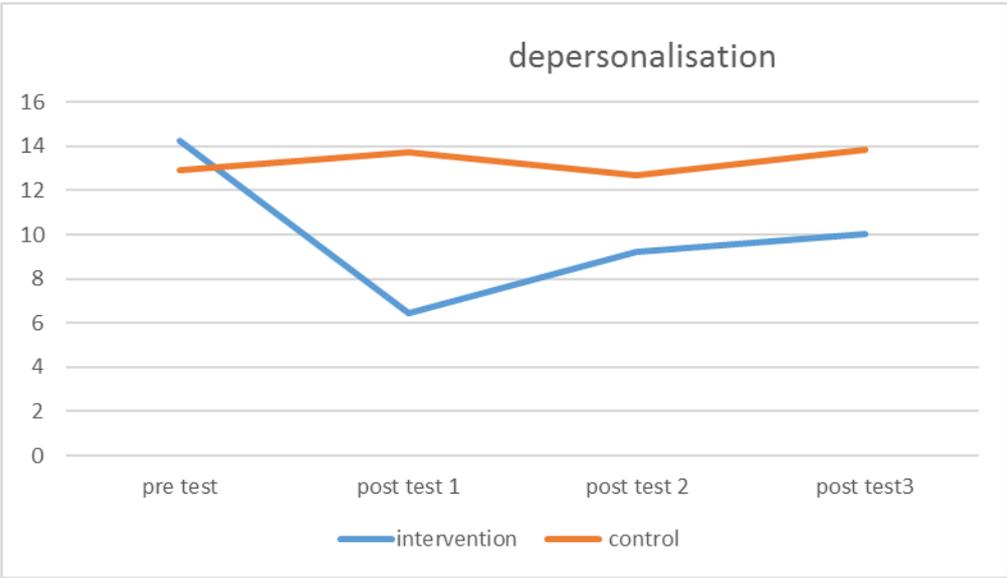


Figure 9. Results for Depersonalisation for Control Group



There was a fluctuation in the DP score over the period of the study for the control group, with an increase between pre-test and post test 1, a decrease between post test 1 and post test 2 and an increase again between post test 2 and post test 3. It is unclear if there were any external factors that may have influenced this change, for example, staff holidays and the impact this may have had on other staff.

Figure 10. Results for Depersonalisation for Intervention and Control Group



The control group originally started with a lower DP score than the intervention group, however by the end of the study the control group had a higher DP score than the intervention group. The results for the control group, showed the DP score to fluctuate over time. This could be construed as the intervention having a positive influence on the DP score as is shown by the significant decrease in DP score between pre test and post test 1 in the intervention group. Again the results are indicative of the need for continued intervention as scores for the intervention group increased between post test 1 and post test 3, however they remained lower than the control group and baseline scores.

The results of a pairwise comparison using the Bonferroni confidence interval adjustment indicated that most of the comparisons were statistically significant ($p \leq 0.05$). These results are presented in Table 27.

Table 29. Pairwise comparison of the depersonalisation score at the four time points

Variables	Mean Difference	<i>p value</i>	95% CI	
			Lower Bound	Upper Bound
DP0 vs DP1	3.26	0.000	1.90	4.62
DP0 vs DP3	2.57	0.000	0.93	4.21
DP0 vs DP6	1.39	0.099	-0.14	2.93
DP1 vs DP0	-3.26	0.000	-4.62	-1.90
DP1 vs DP3	-0.69	1.000	-2.23	0.84
DP1 vs DP6	-1.87	0.005	-3.33	-0.41
DP3 vs DP0	-2.57	0.000	-4.21	-0.93
DP3 vs DP1	0.69	1.000	-0.84	2.23
DP3 vs DP6	-1.17	0.000	-1.61	-0.74
DP6 vs DP0	-1.39	0.099	-2.93	0.14
DP6 vs DP1	1.87	0.005	0.41	3.33
DP6 vs DP3	1.17	0.000	0.74	1.61

DP changes over time, with a higher initial DP score in the intervention group, reducing over the four time points.

Personal Accomplishment at four time points

The mean personal accomplishment score and standard deviation for the nurses at the four time points are presented in table 28. .

Table 30.Descriptive statistics and standard deviation of mean personal accomplishment score of the nurses

Variable	Mean	SD
Personal accomplishment - pre-intervention	22.61	11.13
Personal accomplishment - 1 month post intervention	30.78	12.79
Personal accomplishment - 3 months post intervention	29.08	11.18
Personal accomplishment - 6 months post intervention	28.21	10.62

The intervention group initially started with a low pre test PA score. There was an increase in score between post test 1 and post test 2 and there was a decrease between post test 2 and post test 3, however the results still remained higher than baseline.

The descriptive statistics showed that the pre-intervention mean figure was lower than the mean personal accomplishment score for one, three and six months follow up. See figure 7 below.

Figure 11.Personal Accomplishment at four time points

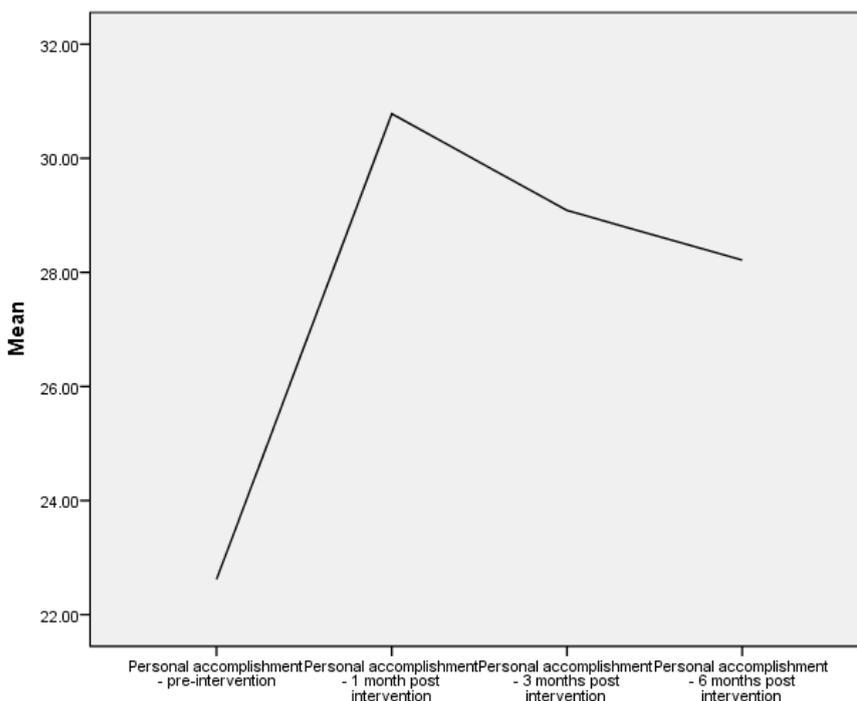
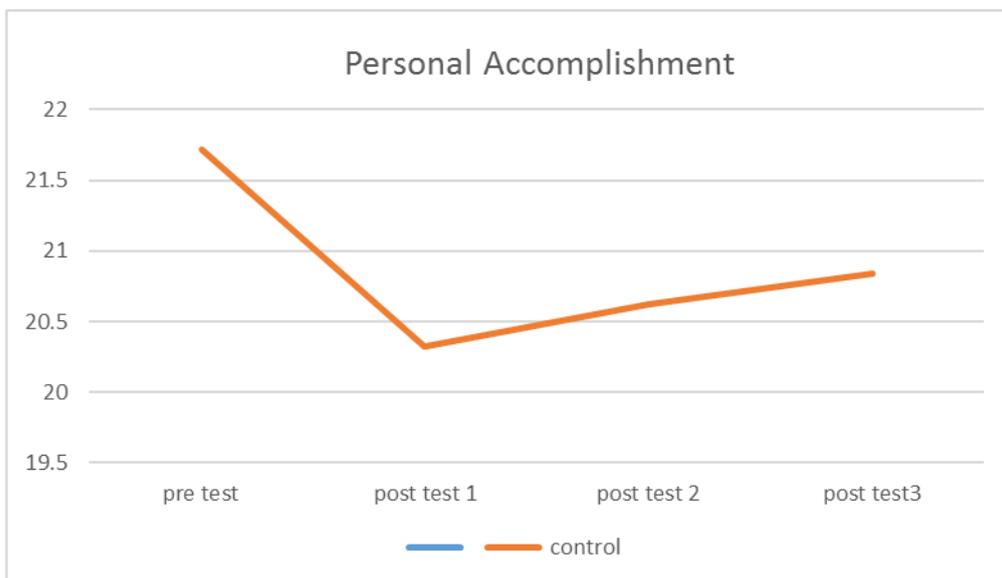
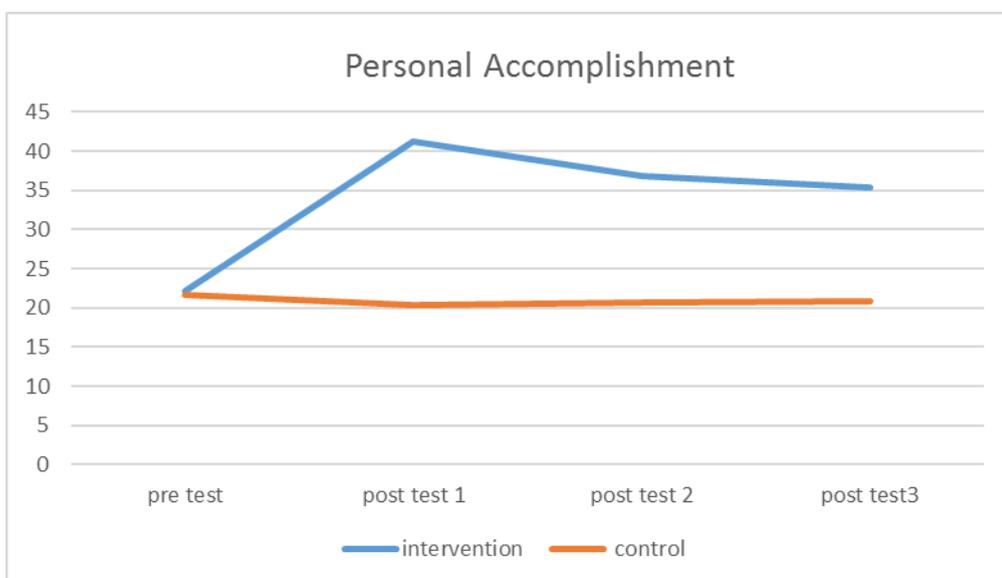


Figure 12. Results for Personal Accomplishment in Control Group



In the control group there was a decrease in the PA score between the pre test and post test 1, but then a small increase in score between post test 1 and post test 2. There is nothing to suggest anything from the study influenced this change, however again it could be due to external factors such as being asked to cover for staff holidays, or increased support from colleagues that was not documented for the study.

Figure 13. Results for Personal Accomplishment for Intervention and Control Group



The intervention group initially started with a slightly higher pre test PA score than the control group, and then had a significant increase in score at post test 1, indicating a positive effect of the intervention on PA. This did decrease between post test 1 and post test 3, however the results still remained significantly higher than those of the control group at the same time periods.

Mauchly's tests indicate that the assumption of sphericity had been violated, $p \leq 0.001$, therefore multivariate tests are reported ($\epsilon = 0.63$). The results of the one-way repeated measures ANOVA reported significant changes between the mean personal accomplishment score at the four times points, Wilk' Lambda = 0.76, $F(3, 252) = 26.17$; $p \leq 0.000$, and large partial eta squared effect size of 0.24. Pairwise comparison using the Bonferroni confidence interval adjustment indicated that there was statistically significant differences in the mean personal accomplishment score between all but one comparison ($p \leq 0.05$). The results indicated that there was no statistically significant difference between the mean personal accomplishment score after one month and after three months ($p = 0.107$).

Independent sample t-test between control and intervention group at the four time points

Total burnout

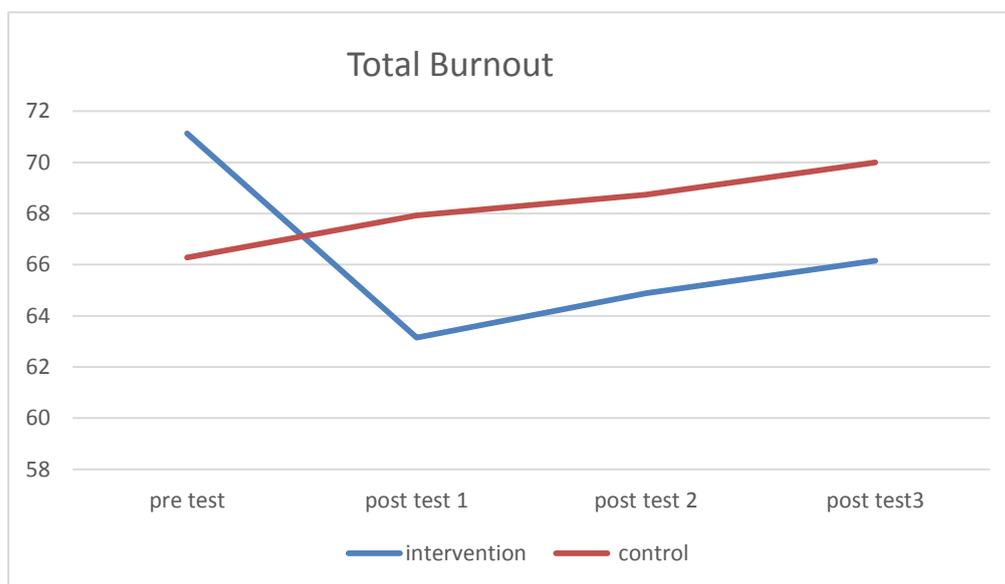
The descriptive statistics and standard deviations of the mean total burnout score of the nurses in the control and intervention groups are presented in table 29.

Table 31. Descriptive statistics and standard deviation of mean total burnout score of the nurses in the two groups

	Groups	N	Mean	SD
Total burnout 0	Control	142	66.28	11.36
	Intervention	154	71.13	11.18
Total burnout 1	Control	133	67.93	11.32
	Intervention	144	63.15	9.85
Total burnout 3	Control	128	68.74	14.43
	Intervention	136	64.88	19.59
Total burnout 6	Control	125	69.99	11.48
	Intervention	130	66.15	17.23

The intervention group started with a higher level of total burnout than the control group. However, between the pre test and post test 1 there was a marked decrease in the total burnout score for the intervention group, whereas there was an increase in total burnout score for the control group. Between post test 1 and post test 3 there was an increase in scores for both the control and the intervention group, however the intervention score still remained lower than the baseline and the control group scores, with the latter having a higher score at post test 3 than at the baseline.

Figure 14. Total Burnout Results for Intervention and Control Group



The intervention group showed a higher level of burnout than control group, but following the intervention there was a decrease in the total burnout score (between the pre test and post test 1), whilst there was an increase in the control group. Between post test 1 and post test 2 both the intervention and control groups showed an increase in their level of burnout, and between post test 2 and post test 3 there was a further increase in scores for both groups, but again the score for the intervention group remained lower than at pre-test and that of the control group.

An independent-sample t-test was conducted to compare the mean total burnout score at the four time points for the nurses in the control and the intervention group. The results indicated a statistically significant difference in total burnout scores at one-month post-intervention for the nurses in the intervention group ($M = 63.15$, $SD = 9.85$) and control group ($M = 67.93$, $SD = 11.32$); $t(294) = 3.69$, $p \leq 0.001$ (two-tailed). The magnitude of the difference in means (mean difference = 4.8, 95% CI: 2.23 to 7.43) was small (Cohen's $d =$

0.43). Similarly, there was statistically significant difference in total burnout scores at three months post-intervention for the nurses in the intervention group (M = 64.88, SD = 19.59) and control group (M = 68.74, 14.43, SD = 14.43); $t(275) = 3.76, p \leq 0.001$ (two-tailed). The magnitude of the difference in means (mean difference = -3.86, 95% CI: -7.28 to -2.27) was small (Cohen's $d = 0.45$). Also, there was a statistically significant difference in total burnout scores at six months post-intervention for the nurses in the intervention group (M = 66.15, SD = 17.23) and control group (M = 69.99, SD = 11.48); $t(275) = 6.13, p \leq 0.001$ (two-tailed) (See table 30).

Table 32. Results of Independent Samples T-Test for total burnout score at three months and six months post-intervention between control and intervention group.

	t-test for Equality of Means					
	t	df	P value	Mean Difference	95% CI	
					Lower	Upper
total burnout t3	-0.54	262	0.593	-1.14	-5.33	3.05
total burnout t3	-0.54	247.9	0.589	-1.14	-5.29	3.02
total burnout t6	-0.44	253	0.664	-0.79	-4.38	2.79
total burnout t6	-0.44	221.6	0.662	-0.79	-4.36	2.77

An independent-sample t-test was conducted to compare the mean total burnout score at the four time points for the nurses in the control and the intervention group. The results indicated a statistically significant difference in total burnout scores at one-month post-intervention for the nurses in the intervention group. Similarly, there was a statistically significant difference in total burnout scores at three months post-intervention for the nurses in the intervention group and control group. Also, there was a statistically significant difference in total burnout scores at six months post-intervention for the nurses in the intervention group and control group.

Emotional exhaustion

The descriptive statistics and standard deviations of the mean emotional exhaustion score of the nurses in the control and intervention groups at the four time points are presented in table 31.

Table 33. Descriptive statistics and standard deviation of mean emotional exhaustion score for the nurses in the two groups.

	Groups	N	Mean	SD
Emotional exhaustion - pre-Intervention	Intervention	154	34.79	9.37
	Control	142	31.63	11.05
Emotional exhaustion score -Intervention 1 month post intervention	Intervention	144	15.52	7.64
	Control	133	33.85	10.08
Emotional exhaustion score -Intervention 3 months post intervention	Intervention	136	23.81	11.59
	Control	128	35.43	11.33
Emotional exhaustion score -Intervention 6 months post intervention	Intervention	130	25.45	10.53
	Control	125	35.33	6.35

An independent-samples t-test was conducted to compare the mean EE score at the four time points for the nurses in the control and the intervention group. The results indicated a statistically significant difference in mean EE scores at the four time points for the nurses in the intervention and control group, $p \leq 0.001$ (table 32).

Table 34..Results of Independent Samples T-Test for mean emotional exhaustion score at the four time points between control and intervention group.

		t-test for Equality of Means				
		t	df	p value	95% CI	
					Lower	Upper
Emotional exhaustion -pre-intervention	Equal variances assumed	2.65	294	0.008	0.81	5.49
	Equal variances not assumed	2.64	277.6	0.009	0.79	5.51
Emotional exhaustion score - 1 month post intervention	Equal variances assumed	-17.14	275	0.000	-20.43	-16.22
	Equal variances not assumed	-16.95	245.4	0.000	-20.46	-16.19
Emotional exhaustion score - 3 months post intervention	Equal variances assumed	-8.23	262	0.000	-14.40	-8.84
	Equal variances not assumed	-8.23	261.6	0.000	-14.40	-8.84
Emotional exhaustion score - 6 months post intervention	Equal variances assumed	-9.0	253	0.000	1.09	-12.03
	Equal variances not assumed	-9.11	213.2	0.000	1.08	-12.01

There is a significant difference between the intervention group and the control group for EE score at the four different time points.

Depersonalisation

The descriptive statistics and standard deviations of the mean depersonalisation score of the nurses in the control and intervention groups at the four time points are presented in table 33.

Table 35..Descriptive statistics and standard deviation of mean depersonalisation score for the nurses in the two groups.

	Groups	N	Mean	SD
Depersonalization score -Intervention pre-intervention	Intervention	154	14.23	6.16
	Control	142	12.93	5.51
Depersonalization score -Intervention 1 month post intervention	Intervention	144	6.42	4.25
	Control	133	13.76	5.48
Depersonalization score -Intervention 3 months post intervention	Intervention	136	9.23	8.24
	Control	128	12.71	6.12
Depersonalization score -Intervention 6 months post intervention	Intervention	130	10.02	7.27
	Control	125	13.82	5.45

An independent-samples t-test was conducted to compare the mean DP score at the four time points for the nurses in the control and the intervention group. The results indicated statistically significant differences in mean DP scores at the four time points for the nurses in the intervention and control group; all comparison having $p \leq 0.05$ (table 34).

Table 36..Results of Independent Samples T-Test for mean depersonalisation score at the four time points between control and intervention group.

	t-test for Equality of Means					
	t	df	p value	95% CI		
				Lower	Upper	
Depersonalization score - pre-intervention	Equal variances assumed	1.905	294	0.051	-0.04	2.64
	Equal variances not assumed	1.913	293.7	0.054	-0.037	2.63
Depersonalization score - 1 month post intervention	Equal variances assumed	-12.511	275	0.000	-8.49	-6.19
	Equal variances not assumed	-12.387	248.4	0.000	-8.51	-6.18
Depersonalization score - 3 months post intervention	Equal variances assumed	-3.883	262	0.000	-5.25	-1.72
	Equal variances not assumed	-3.918	248.6	0.000	-5.23	-1.74
Depersonalization score - 6 months post intervention	Equal variances assumed	-4.711	253	0.000	-5.39	-2.21
	Equal variances not assumed	-4.737	239.0	0.000	-5.38	-2.22

There is a significant difference between the intervention group and the control group for DP scores at the four different time points.

Personal accomplishment

The descriptive statistics and standard deviations of the mean personal accomplishment score of the nurses in the control and intervention groups at the four time points are presented in table 35.

Table 37. Descriptive statistics and standard deviation of mean personal accomplishment

f

	Groups	N	Mean	SD
Personal accomplishment - pre-intervention	Intervention	154	22.12	11.93
	Control	142	21.72	9.62
Personal accomplishment - 1 month post intervention	Intervention	144	41.22	4.77
	Control	133	20.32	9.35
Personal accomplishment - 3 months post intervention	Intervention	136	36.85	8.03
	Control	128	20.62	7.49
Personal accomplishment - 6 months post intervention	Intervention	130	35.31	7.50
	Control	125	20.84	8.07

nurses in the two groups.

A t-test was conducted to compare the mean PA scores at the four time points for the nurses in the control and the intervention group. The results indicated statistically significant difference in PA scores at pre-intervention for the nurses in the intervention group and control group

An independent-samples t-test was conducted to compare the mean personal accomplishment score at the four time points for the nurses in the control and the intervention group. The results indicated statistically significant difference in total personal accomplishment scores at pre-intervention for the nurses in the intervention group (M = 22.12, SD = 11.93) and control group (M = 21.72, SD = 9.62) ; $t(288.9) = 0.32, p=0.751$ (two-tailed), 95% CI: -2.07 to 2.87). However, there was statistically significant difference in person accomplishment scores at all the other three time points; all comparisons having $p \leq 0.001$ (table 36).

Table 38. Results of Independent Samples T-Test for mean personal accomplishment score at the four time points between control and intervention group.

			t-test for Equality of Means					
			t	df	p value	Mean Difference	95% CI	
							Lower	Upper
Personal accomplishment - pre-intervention	Equal variances assumed	0.32	294	0.753	0.39	-2.09	2.89	
	Equal variances not assumed	0.32	288.9	0.751	0.39	-2.07	2.87	
Personal accomplishment - 1 month post intervention	Equal variances assumed	23.7	275	0.000	20.89	19.15	22.63	
	Equal variances not assumed	23.13	192.9	0.000	20.89	19.11	22.67	
Personal accomplishment - 3 months post intervention	Equal variances assumed	16.97	262	0.000	16.24	14.36	18.13	
	Equal variances not assumed	17.00	261.9	0.000	16.24	14.36	18.12	
Personal accomplishment - 6 months post intervention	Equal variances assumed	14.83	253	0.000	14.47	12.55	16.39	
	Equal variances not assumed	14.81	249.8	0.000	14.47	12.54	16.39	

There is a significant difference between the intervention group and the control group for PA scores at the four different time points.

Summary

This chapter presented the results of descriptive and inferential statistics conducted for the current study. In total 296 nurses were recruited to the study from Al-Amal Complex for Mental Health, Riyadh and Ara'r to determine the effect of implementing a burnout prevention program on burnout reduction among mental health nurses and a control group in Ara'r in Saudi Arabia.

Chi square revealed that there were significant differences between the two groups in the level of burnout regarding gender, the type of ward subjects was working on, shift patterns, and position in the organisation. The independent t test showed that there were significant differences in mean scores of burnout with regard to income and years of experience in nursing between the intervention and control groups.

Bivariate analysis revealed that income has a positive correlation with level of emotional exhaustion, and a negative correlation with level of personal accomplishment within the intervention group. While the correlation between years of experience in nursing and level of depersonalisation within the intervention group was negative, it was also negative among the control group. Years of experience in nursing has a positive correlation with the level of personal accomplishment within both groups, and a negative correlation with the level of emotional exhaustion within both groups. However, the number of patients assigned to a nurse had a significant positive correlation with emotional exhaustion within the intervention group and a significant negative correlation with the level of personal accomplishment in the intervention group. However, in the control group nurse-patient ratio had a significant positive correlation with the level of emotional exhaustion.

T-test for two independent groups showed that there was significant difference in the level of emotional exhaustion in relation to gender; with the mean score for female nurses being higher than the mean score for male nurse in the intervention group. This was also the case for position in the organisation. There was also a significant difference within the depersonalisation and personal accomplishment scores in relation to position, with the mean score for nurses being higher than the mean score for administrators (Head nurse, academic nurse and managers) within the intervention group. Also, there was significant difference in emotional exhaustion, depersonalisation, and personal accomplishment scores related to gender, with the mean score female nurses being higher than the mean score for male nurses within the control group. Additionally, there was significant difference in

emotional exhaustion, depersonalisation, and personal accomplishment scores in relation to position, with the mean score for nurses being higher than the mean score for administrators (Head nurse, academic nurse and managers) in the control group.

ANOVA test revealed that there was significant difference between nurses with a diploma and those with a bachelor's degree in the level of emotional exhaustion, depersonalisation and personal accomplishment within both groups. Also, there was significant difference between nurses who were rotating between the A, B, and C shift patterns and nurses who permanently work on A shift in terms of emotional exhaustion, depersonalisation, and personal accomplishment within the intervention group. Likewise, there was significant difference between nurses who were rotating between A, B, and C shift pattern and nurses who permanently work on A shift, and nurses who permanently work on B shift in the subcategories of emotional exhaustion, depersonalisation, and personal accomplishment within the control group.

Using multiple linear regression showed that income and years of experience in nursing were significant predictors, and therefore potential protectors, of burnout within the intervention group. Nevertheless, none of the independent variables were a significant predictor to burnout in the control group.

Using repeated measure ANOVA showed that a major positive reduction in emotional exhaustion, depersonalisation, and an increase in personal accomplishment, and in the total level of burnout took place at one month after being exposed to the intervention. However, the effect of the intervention between the first and third month follow-up, and from the third to the sixth month follow up was negative in terms of emotional exhaustion, depersonalisation personal accomplishment, and total burnout,

CHAPTER SEVEN: DISCUSSION

Introduction

Burnout among mental health nurses is a common phenomenon (Hamdan-Mansour et al., 2011; Van Bogaert et al. 2013). As there is a growing number of individuals diagnosed with mental illness seeking inpatient psychiatric care and limited resources and shortages within the mental health workforce, mental health nurses are becoming overwhelmed in trying to meet the demands of providing quality psychiatric nursing care (Hamdan-Mansour et al., 2011; WHO, 2011). Thus, there is a need to improve the working environment and the personal capabilities of mental health nurses to enable them to provide specialized quality nursing care to those who need it. In order to achieve this, evidence such as that provided by this study, suggests there is a need to educate and train mental health nurses to better manage their daily work stressors. This study is the first in SA to target a large number of mental health nurses, and through a robust quasi-experimental research design, to examine changes in the level of burnout following exposure to a burnout reduction programme, at four time points, pre-intervention and at one, three and six month-intervals. This chapter provides a discussion of the study findings, delineating the effects of using a burnout reduction programme for mental health nurses working in inpatient psychiatric units in Saudi Arabia, together with the implications for practice.

Levels of burnout among nurses in the KSA

There are only three previous studies investigating burnout in nurses in Saudi Arabia (AlSuliman & AlHablani, 2014; Al-Turki et al., 2010; Sadat-Ali), none of which have examined burnout among mental health nurses. However, these have initially been used to compare the results from this study. When comparing these results to the overall results from this study into mental health nurses working in Saudi, both control and intervention groups obtained the following burnout scores: EE, 33.21%; DP, 13.58%; and low PA score of 21.92%. These results, particularly for the EE score and low PA score are more similar to those of Sadat-Ali et al. (2005), who found that 35% of (general) nurses and doctors had a high EE score, 50.7% had a high DP score and 17% had a low PA score. This study however was only conducted using 69 participants so it is difficult to ascertain whether the results would remain consistent for a larger number of nurses.. Five years after the publication of Sadat-Ali et al.'s (2005) study Al-Turki et al (2010) conducted a study of

198 general nurses and found that 45% had a high EE score, 42% a high DP score and 71.5% a low PA score. There appears to be a large increase within each score category within the 5-year span between the two studies indicating burnout amongst nurses was rising, and this may have been due to the implementation of changes within the health system in 2007.

However, AlSuliman and AlHablani (2014) conducted a study and found only 10.8% of nurses to have a high EE score, 68% a high DP score and 5.1% with a low PA score. In the four intervening years between the publication of this and Al-Turki et al.'s (2010) study the EE scores appear to have reduced, perhaps potentially being accounted for by adaptation to the changes within healthcare initiated in 2007. However, the DP score has risen and the PA score has reduced, suggesting anxiety among general nurses remains high and may compromise self-confidence and subsequently personal accomplishment. However, all of these studies only examined burnout among general nurses and not mental health nurses. Therefore, it is difficult to do a true comparison, and as a result studies conducted elsewhere are perhaps more relevant when looking at the results from this study. Overall, this study found that most subjects in the intervention and control groups had moderate levels of emotional exhaustion and depersonalization, and low levels of personal accomplishment at baseline assessment, with differences between groups not being significant. Furthermore, the results from this study infer, (prior to exposure to the burnout prevention programme) that all subscales of the Maslach burnout scale showed evidence of mental health nurses experiencing burnout with various levels of severity.

Levels of burnout among mental health nurses

Other studies that show similar results to that of this study include that of an Australian study (Happell et al., 2003), who found that 35.8% of mental health nurses had a high EE score, and 23% had a low PA score. Likewise in Wales, Edwards et al. (2006) found that 36% of mental health nurses had a high EE score, and 12% had a high DP score and Likewise, in Sweden Holmqvist et al. (2006) indicated 35% had a high level of emotional exhaustion. In other studies (Angermeyer et al., 2006; Hyrkäs, 2005; Karanikola & Papathanasso, 2013; Ogresta, et al., 2008; Piko, 2006; Pompili et al., 2006) undertaken in Germany, Finland, Cyprus, Vienna, Hungary and Italy respectively, found mental health nurses to have lower EE scores than those identified in this study. In the Middle East, Jahrami (2009) in Bahrain found mental health nurses had an EE score lower than this study, as did Yousefy and Ghassemi (2006) who conducted a similar study in Isfahan

(Iran). In the UK, Kilfedder et al. (2001) and Sherring and Knight (2009) found 41.9% and 41% of mental health nurses respectively had an EE score higher than that found in this study.

The above describes the different levels of emotional exhaustion among nurses delivering mental health care globally. While research conducted in the UK demonstrated a higher level of EE as compared to Saudi nurses, European countries and two Middle Eastern countries, Bahrain and Iran, had comparatively low levels of EE when compared to Saudi mental health nurses. Emotional exhaustion as one spect of burnout can lead to a situation whereby employees develop cynicism about their work, and feel unable to accomplish their professional goals. As a result, the negative effects may include diminished interest in one's work, becoming detached from patients, losing sight of professional identity, deterioration in work output, unprovoked anger, chronic fatigue, and variety of physical and mental problems (Newstrom, 2011). Such negative symptoms are likely to compromise one's ability to achieve personal goals. Personal Accomplishments were overwhelmingly high in countries such as Finland (Hyrkäs, K. 2005),

Ireland (McTiernanm & McDonald 2015), UK (Jenkins & Elliott 2004), Italy (Volpe, et al. 2014), Portugal (Luis S´a, 2009), Bahrain (Jahrami 2009) and Kenya (Ndetei et al 2008). Countries such as Iran (Ashtari et al. 2009), Australia (Happell et al 2003), Jordan (Hamaideh, 2011), Vienna (Ogresta et al., 2008), UK (Sherring & Knight, 2009), Hungary (Piko, 2006) and Saudi shared almost same results for PA with numbers ranging from 20.5-27.5%. Low scores for PA is concerning, as under achieving may give rise to apathy and the desire to opt out of a career in mental health nursing. The results from this study indicated this might be a consequence of work overload and/or other organisational factors that nurses are encountering while providing mental health care to those experiencing mental illness, therefore each of these factors are discussed below.

Staffing Levels

It has previously been found that there is a strong association between a low nurse to patient ratio and an increased level of burnout experienced by mental health nurses (Shimizu et al., 2003). Mental health nurses working in areas where they are assuming responsibility to provide nursing care to a higher number of patients are more likely to develop burnout than those with less patients to take care of (Shimizu et al., 2003). The

findings of this study do support finding and suggests it a significant factor that contributes to burnout among nurses working in mental healthcare settings.

In contrast, Halm et al. (2005) found that staffing was not a significant predictor of emotional exhaustion or job dissatisfaction. One possible explanation for this discrepancy could be related to the magnitude of difference in the nurse-patient ratio. For example, the nurse-patient ratio in the Arab world is much higher, nurses' being responsible for fewer patients, than those in other countries. In Saudi Arabia, the nursing shortage is a growing issue, especially in the public health sector due to high staff turnover. Currently there are approximately 36 nurses per 10,000 populations (AlYami & Watson 2014). This rate is lower in comparison with other regional countries, such as Bahrain (61 per 10,000 population) and Qatar (60 per 10,000 population), and other developed countries, Australia (97 per 10,000 population), Canada (100 per 10,000 population), UK (100 per 10,000 population), Japan (95 per 10,000 population) and France (80 per 10,000 population) (WHO, 2010). Moreover, in their past review of the state of mental health care in Saudi Arabia, Koenig et al. (2014) suggested the ratio of psychiatric beds per population (12 per 100,000) in the country remains below than the world average (16 per 100,000), perhaps adding further stress to those trying to deliver quality care.

The limited number of institutions specialising in mental health care, coupled with a rise in the prevalence of mental illness among Saudi people may play a significant role in the incidence of work related stress leading to higher levels of burnout among mental health nurses. A previous national study (Al-Yami & Watson, 2014) explored such concerns and suggested that a shortage of nurses within the workforce is one issue that has been exacerbated, due to the increased numbers of people seeking mental health care in Saudi Arabia. However, this is difficult to determine as there are no specific statistics given in the literature or in governmental reports for nurses working in mental health settings in Saudi Arabia, but the estimated figures needed to deliver Saudi health care is largely dependent on expatriate nurses (Al-Yami & Watson, 2014). The results of this study provide further evidence to support the aforementioned assumptions related to burnout and its association with the burden of care often experienced when there are staff shortages (Kunaviktikul et al., 2015; Nantsupawat et al. 2016; Toh et al., 2012). Additionally, perhaps this situation also contributes to the notion of burnout being a global problem among mental health nurses (Günösen & Üstün, 2010). On the other hand, those with a higher level of job-stressors are prone to experience higher level of emotional exhaustion and depersonalisation (Hamdan-Mansour et al., 2011).

Demographic characteristics and burnout

As burnout is caused by internal and external factors, this study emphasized the role of mental health nurses' personal demographic characteristics in the development of burnout. Factors such as; age, gender, marital status, level of education, years of nursing experience, income, shift pattern, ward type, caseload, position within the organization, and intention to leave their current post were considered in relation to burnout. Significant results showed that EE had a positive correlation the number of patients assigned to a nurse in the intervention group ($p = 0.003$), while it had a negative correlation with income ($p = 0.002$) and years of nursing experience in both groups ($p = 0.004$). The results infer that among nurses in the intervention group, those with a lower income and years of nursing experience, and a higher number of patients assigned to them are more likely to experience higher EE. However, nurses in both groups showed an inverse relationship between years of experience in the nursing profession and emotional exhaustion, indicating that the less number of years in nursing is linked to higher emotional exhaustion ($P=0.004$).

In other words, nurses who spend more years working in the nursing profession may have developed the capability to manage stressors related to their job demands, being able to work more effectively than those with less experience (Brewer, & Shapard, 2004). The results of this study show that mental health nurses with more experience have a lower burnout score. This infers that years of experience is a positive factor in terms of buffering emotional exhaustion, as is shown within the results of this study ($R=-0.23$).

Level of Education

This study found that there is a significant positive correlation between level of education and emotional exhaustion ($P=0.05$), a lower level of education being associated with higher levels of emotional exhaustion and depersonalization among mental health nurses. In their literature review, Pamuk and Durmus (2015) observed a negative correlation between level of education and burnout. However, it has also been suggested that nurses with a higher level of education are more likely to use theoretical and research-based nursing practice, causing them more conflict with other less educated nurses and health care professionals. It has been suggested training for conflict might decrease the depersonalisation scores among nurses, and increased educational levels among nurses might translate into more autonomy

and job satisfaction (Alimoglu & Dönmez, 2005; Demir et al., 2003). The evolving role of level of education in reducing burnout warrants further research, particularly in countries such as SA where there is commitment for nursing to become an all degree profession. Similarly, one study investigated the level of burnout among new graduate nurses, found it began to rise in the second year after graduation, and increased with time, as almost every fifth nurse reported extremely high levels of burnout at some point during their first three years following graduation (Rudman & Gustavsson, 2011).

Income

It has been reported that low income is a major predictor of burnout among nurses, positively associated with job dissatisfaction (Sansoni et al., 2016). In addition, Schooley et al. (2016) found low income to be significantly correlated with burnout. In this study, findings suggest that nurses receiving a lower income are more likely to experience higher emotional exhaustion ($P=0.002$) and lower personal accomplishment ($P=0.02$). The majority of those participating in this study have a diploma or a degree in nursing, and were receiving an adequate amount of monthly salary. However, on completion of the MBI they were shown to have moderate levels of emotional exhaustion, depersonalization, and personal accomplishment. The differences in income (wages) are one factor that nurses considered was influential to their job (dis)satisfaction and those who believed they did not have a high enough income felt this negatively affected them, leaving them emotionally exhausted and lowering their personal accomplishment. Khatiban et al. (2015) suggested lower income might increase the frequency and severity of burnout. Similarly, in their systematic review of the literature, Gómez-Urquiza et al. (2016) found that nurses receiving a high salary are less likely to experience burnout. This infers that a high salary can make a significant contribution to nurses' job satisfaction and their ability to manage work-related stressors, causing them less emotional exhaustion and high levels of personal accomplishment.

Klopper et al. (2012) found that those who received a higher salary were less likely to experience burnout as high salaries are often associated with higher job satisfaction. General studies have inferred that salary has a strong correlation to job satisfaction, and where this is not achieved burnout may result. Tourigny et al. (2016) suggest that improving pay is the only long-term solution to retaining current nurses in their role as well as to recruit new nurses. This is similarly supported by the significant correlation found in

this study between income and EE ($P=0.002$) and PA ($P=0.02$). However, other evidence suggest nurses categorise work environment factors (adequate staffing and resources) as more important and essential to carrying out their role than money (Zangaro & Soeken, 2007).

Workload

The findings of this study revealed that a higher patient-low nurse ratio is associated with higher emotional exhaustion ($P=0.003$) and lower personal accomplishment ($P=0.009$). Previous studies have indicated a higher level of education, years of experience, case load, and position in the organisation contribute to an increased workload (Foster, 2003; Cooker, 2007; Oppenauer & Van De Voorde, 2016). This has often led to nurses becoming more at risk of developing a higher level of emotional exhaustion, and depersonalisation and lower personal accomplishment. Higher work load could escalate the level of anxiety and depression among mental health nurses (Hamdan-Mansour et al, 2011; Lindo et al, 2006; Mojde et al, 2008), contributing to higher levels of emotional exhaustion and depersonalisation. However, nurses' ability to manage work-related stressors and use appropriate personal and social resources as mediating factors, will help maintain their mental wellbeing. This could explain why nurses with higher levels of anxiety might experience higher levels of emotional exhaustion and depersonalisation and lower personal accomplishment, as they perceive the work environment to be challenging and lacking in opportunity for success (Karanikola & Papathanassoglou, 2013). In addition, there are many studies that assert nurses with lower levels of education and with higher caseloads experience more emotional exhaustion and burnout (Al-Turki et al, 2010; Quattrin et al, 2006; Lin et al, 2009). Findings in this study are in keeping with those of Quattrin et al. (2006) regarding number of patients on a nurse's caseload and emotional exhaustion; however, no significant relationship between lower levels of education and higher emotional exhaustion were found.

Moreover, according to available evidence, nurses' workload, including the number of assigned patients, is considered an important predictor of emotional exhaustion. Austin et al., (in press), stressed that high patient – low nurse ratio may contribute to high levels of distress among physicians and nurses. The findings from this study support this premise, finding high patient – low nurse ratio being associated with a higher level of emotional exhaustion and lower personal accomplishment. To further substantiate these findings, Akman et al. (2016) stressed the importance of discerning an appropriate nursing

workload. They found a positive correlation between the number of patients allocated to a nurse and burnout, suggesting as the number of assigned patients decreases, the level of burnout also decreases. This is not surprising, as the more patients a nurse has allocated the more likely they are to experience work overload. Although work activities are important components of quality care, it has been reported that when these exceed capacity they are considered strong predictors of burnout syndrome (Abdo et al., 2015). Such factors elicit the requirements for ensuring the ratio of number of nurses to number of patients is manageable, ameliorating demanding shift patterns, identifying the work done by nurses with the help of appropriate remuneration and rewards, offering internships for nurses that have recently joined the workplace and adequate funding for the training of nurses.

Nurses' years of experience

This study found that the more years of experience a participant had in nursing correlated with there being a lower level of emotional exhaustion ($P=0.004$) and depersonalization ($P=0.00$). Nurses with less years of experience were less able to separate themselves from their patients and expressed their passion and emotions more readily than nurses with longer years of service. Nurses with more years experience have a greater ability to separate their emotions and personal issues from those of their patients, leading to low level of depersonalization (Arnten et al., 2008). Novice nurses are particularly vulnerable to a high level of stress and burnout, with increased levels of depersonalization and decreased personal accomplishment, in comparison to experienced nurses (Edwards et al., 2006; Rhéaume et al., 2011). This may be attributed to the new challenges they encounter as qualified nurses being anxiety provoking (Edwards et al., 2006; Rhéaume et al., 2011; Watson et al. 2013). However, the role of 'years of experience' is subjective to nurses' personal goals and quality of their work. For example, novice nurses come to the clinical area with up-to-date knowledge and a strong theoretical background, but conversely with less skill experience in the area. Thus experienced nurses may approach the work differently than novice nurses. According to Tourigny et al. (2016) novice nurses seem to struggle more, experiencing stress and anxiety as they respond to the demands of the workplace, but remain more positive about their personal accomplishment.

Experience plays a major role in developing nurses' capacity in dealing with work challenges. Similar to the findings of this study, Gómez-Urquiza et al. (2016) found older nurses with more years of nursing experience had lower levels of burnout. This is incongruous with the findings of Khatiban et al. (2015), who suggested work experience

might increase the frequency and severity of burnout. This is similar to findings of other studies (Akkus et al, 2010; Al-Turki et al, 2010; Lin et al, 2009; Quattrin et al, 2006). In this present study, the researcher found a positive correlation between PA and years of general experience ($p = 0.00$). The result shows that nurses with higher the years of general nursing experience, the more likely to experience higher PA. This result support the findings of Gómez-Urquiza et al. (2016). The results infer that among nurses in the intervention group, those with a lower income, less years of nursing experience, and a higher number of patients assigned to them are more likely to experience higher EE.

Shift work

The results from this study revealed that nurses who are working night shifts reported higher levels of burnout on all three scales (EE, DP, and PA). This result is synergized with the results of several studies (Demir et al, 2003; Lang, et al., 2010; Malliarou et al, 2008). One possible explanation for this result relates to the disruption working night shifts may cause to one's social life (Arikan et al., 2007; Isikhan et al., 2004; Palfin, 2008). In a previous study day shift nurses reported that they felt more socially supported at work than night shift nurses (Gallagher & Gormley, 2009). Other studies showed that long working hours have been cited as a major cause of increased stress and burnout (Arikan et al., 2007; Isikhan et al., 2004; Palfi, 2008). Unlike professionals who work only during the day, nurses are expected to work both day and night. Long-term night shift-working has even been suggested to increase the risk of cardiac problems (Scott 2000). Working nights is a challenge for most nurses especially when one has to work for four or five nights in a row. Working night shifts may cause sleep deprivation increasing diastolic blood pressure and lower muscle sympathetic nerve activity (Shimizu et al, 2003). Rauchenzauner et al (2009) found that neuroendocrine stress response increases during night shifts. Nurses who work nights or irregular shifts are prone to increase nurse errors (Arimura et al, 2010) and mental health problems (Abdalkader & Hayajneh, 2008). Among Saudi nurses, female nurses struggle to remain on regular shifts and wanted to work on a fixed day shift schedule (A shift) due to family and other social factors (Al-Turki, 2010).

Age

One of the main factors that has been emphasized in the literature relating to burnout is nurses' age (Jennings 2008, Rafii 2004). In this study, the results did not show any significance relationship between age and emotional exhaustion, depersonalisation and personal accomplishments. Some studies reported that younger nurses experience lower levels of emotional exhaustion and depersonalisation, and a higher level of personal accomplishments (Hamdan-Mansour et al, 2011; Lindo et al, 2006; Mojde et al, 2008). One explanation for this within the literature relates to the facts that young nurses probably have less family responsibilities, and thus less family-work conflict (Cooker, 2007; Foster, 2003; Karanikola & Papathanassoglou, 2013). In contrast, older nurses are assuming multiple roles in terms of family, social, and economic roles, therefore they are having to balance more work-home factors than those who are younger (Cooke, 2007). These findings differs from Ilhan, et al. (2008) who found that the EE and DP scores were higher in younger nurses, and that the scores for a lack of personal accomplishment were also higher. However, the results of this study were not considered to be statistically relevant.

Marital status

In this study 67% of participants were married, as opposed to 23% being single. In Saudi Arabia, similar to other regions in the world, economic strains and increasing numbers of younger people seeking a higher level of education have contributed to an increase in the age of marriage. For young nurses this may mean assuming less familial responsibilities and less work-home conflicts (Al Turki, 2010). Lindo et al. (2006) also maintained that younger nurses are less likely to experience emotional exhaustion and have a more positive perception of their work and personal accomplishment than their older married counterparts. Furthermore, education has also played a significant role in improving the quality of marriage and family relationships (Amato et al., 2003). In this context, it could be argued educated nurses are more prepared in handling both family and work-related issues and challenges, enabling them to effectively deal with stressors arising from home-work conflict, thus leading to less burnout. However, some studies have found higher burnout scores are associated with married individuals (De los Rios-Castillo et al, 2007; Al-Turki et al, 2010; Al-Turki, 2010). In contrast, other studies suggest burnout was higher among single nurses (Akgun, Al-Assaf & Bakar, 2008; Lin et al, 2009). This would infer

that it is individual ability to sustain a successful marriage while meeting work responsibilities is the mediating factor. In this present study, the researcher found no correlation between marital status and levels of burnout.

Gender

The results regarding gender and burnout in this study indicated a significant difference between males and females in regards to emotional exhaustion, with females showing a higher level of emotional exhaustion. These findings are in keeping with other research, whereby females experience higher levels of anxiety, work related stress and work burden (Arnten et al., 2008). It has been suggested females are more likely to have an emotional attachment to their caring role (Simpson & Stroh, 2004), whereas male nurses are better able to separate their emotions by being task-oriented and focusing largely on outcomes (Arnten et al., 2008). Another study examining the difference between males and females with regard to emotional exhaustion also found females have higher levels of emotional exhaustion due to challenges such as work-family conflicts, and experienced a higher level of reduced personal accomplishment than their male counterparts (Adekola, 2010; Rubino et al., 2013). According to Rubino et al. (2013), this was due to lack of motivators, such as being given responsibilities, recognition, and achievements. In addition, Posig and Kickul (2004) also indicated that family-work conflict was found to be a key contributor to emotional exhaustion.

These results are in contrast to what was reported by Martínez and Lopez (2005), who reported that the male respondents were in general more likely to suffer from the burnout syndrome than were their female counterparts. Zani and Pietrantonio (2001) found that male nurses in Italy scored higher than female nurses on the subscale for depersonalization and demonstrated a lack of personal accomplishment, while other studies reported male respondents were found to be more emotionally exhausted than the female respondents (Bekker & Bessers, 2005). In a study of Iranian nurses, it was found that while the male nurses felt more depersonalised than the female nurses, the emotional exhaustion mean scores were comparable (Sahraian, et al, 2008). One study conducted in Cyprus indicated that males have higher levels of depersonalisation than females and they also indicated that female nurses are more appreciative of their personal accomplishments than males (Karanikola & Papathanassoglou, 2013).

Several studies found no differences in nurses' level of burnout due to gender (Al-Ma'aitah et al, 1999; Bressi et al., 2008; Gandi et al., 2011; Lederer et al, 2008; Lin et al., 2009). A recently conducted meta-analysis confirmed some of the above findings, in which women are slightly more emotionally exhausted than men, while men experience more depersonalization than women (Purvanova & Muros, 2010). In this present study, the researcher found significant difference between gender and DP, where females experience of DP are higher compared to their male counterparts. Al Ma'aitah et al. (1999) investigated the effects of gender on the nurses' working life in Jordan, which is a country where this profession is seen as a low level one, in contrast, Saied et al. (2016) who found a positive perception about nursing profession among Saudi community.

Intention to leave

Workplace burnout may have serious implications for the nursing workforce, including recruitment, turnover rates, and retention. Recent studies have shown that 23% to 33% of healthcare providers, nurses in particular, had intended to leave their current position (Harwood et al., 2010; Lagerlund et al., 2015). Harwood et al. (2010) have stressed that job retention is significantly associated with burnout, and its mental and physical symptoms. Similarly, Lagerlund et al. (2015) indicated that there is a strong association between leadership and intention to leave. Intention to leave was more prevalent among nurses reporting less favourable perceptions of leadership, who had worked for less than two years as a mental health nurse and who had higher burnout scores (Yanchus et al., 2016). Hayes et al. (2012) also identified an association among leadership styles, types of working environment, emotional exhaustion, and intention to leave. In their comprehensive review of the literature, they found that when nurses are not sufficiently supported by effective leadership and/or in their work environment, they experience emotional exhaustion and tend to leave not only their current posts, but also their nursing career. The perception of intention to leave and high turnover rates among healthcare providers are critical issues that require addressing. If no efforts are made to address these problems, this may impact on staffing patterns, resulting in a nursing shortage, job dissatisfaction, intention to leave, and poor patient outcomes (Nantsupawat et al., 2016). In this study, data regarding nurses' intention to leave their profession was collected. Intentions of leaving their current post was assessed by asking a closed-ended question; with the majority of nurses in both the intervention and control group suggesting they did not plan to leave their workplace despite having moderate to high burnout scores. In this present study, the reasons for leaving and not leaving their current post were not explored. However, Aldiabat et al.

(2016) reported salient factors as to why Saudi nurses leave the profession including; low income, restricted allowances and financial incentives, including administrative regulations, job satisfaction, and other miscellaneous factors, such as Saudi society's image of bedside Saudi nurses.

Burnout predictors

Burnout is far more common among mental health workers than among other professional groups (Iglesias et al., 2010; Spence et al., 2009). Nurse burnout leads to predicted turnover that result in manpower shortages and crucial staffing issues. According to previous studies, burnout predictors include: age, gender, marital status, income, education level, years of experience, department, shift pattern, number of patients assigned to nurse, and position, with level of education being one of the important predictors of burnout (Aiken et al. 2003). Nurse burnout is associated with distinct personal and situational factors, which impacts nurse turnover rates, nursing shortages, and quality patient care.

Within this study two factors that were considered to be statistically reliable in predicting burnout were income ($P=0.01$) and years of experience (0.02). The predictors of burnout when working in clinical environments in the Middle East region, particularly in Saudi Arabia, are less explored than those in the West. Within this study, an attempt was made to identify some predictors that might influence the development of stress and burnout among mental health nurses. The results of the study established two predictors that have a negative correlation on nurses' levels of burnout: income and years of experience in nursing practice. Specifically, nurses with higher income were more likely to report lower burnout scores than those with less income. This is in keeping with other research, where income is considered to be a major factor in burnout (Peckham, 2013).

With regard to years of nursing experience in general, Rhéaume et al. (2011) found a negative correlation in which nurses with more years of experience were more likely to report lower burnout scores than those with less years of experience in nursing practice. As discussed above, novice nurses are more prone for occupational burnout, stress, anxiety, and depression. The findings of this study support previous studies in which experience plays an important role in adapting to numerous professional and occupational stressful situations.

Other predictors of burnout explored in this study were not statistically significant, such as: age, gender, marital status, department worked in, shift work (as a whole), number of patients assigned to nurse and position in the organisation. However, other evidence suggests that age, gender, job grade or academic position, marital status, neuroticism, physical and emotional exhaustion, frustrations, personality traits, dissatisfaction with colleagues, less time for family and friends, frequency of exposure to work-related violence, social support, and uncertainty about the future are common predictors of stress and associated burnout (Abdo et al., 2016; Toh, S et al., 2012; Burke, 1988; D'Ambrosio, 2016; Huri et al., 2016; Kiecolt-Glaser & Newton, 2001; Kulkarni et al., 2016; Pamuk & Durmus, 2015; Pranckeviciene et al., 2016). Studies have found that less years of experience are associated with higher burnout levels (Abdo et al., 2016; D'Ambrosio, 2016; Huri et al., 2016) and lower occupational participation (Huri et al., 2016). Furthermore, when individual nurse characteristics were evaluated, several factors associated with increased workload were identified as being associated with burnout and have been discussed above. These factors include lower level of education, less years of nursing experience, higher case load and low position in the organization. These factors are associated with higher emotional exhaustion, higher depersonalisation and lower personal accomplishment. The associated protective predictors (higher years of nursing experience and higher income) examined in this study, and also evident in similar studies, should be taken into consideration when trying to reduce the level of burnout and prevent its recurrence.

Effects of burnout prevention programme over time

Preventing and reducing work related burnout is of great importance, not only with regard to the quality of life of nurses affected, but also for preventing the economic losses which come about as a result of absenteeism and job turnover (Awa et al., 2010). The intervention programme carried out in this study was generally helpful in reducing burnout and lead to positive effects on those who had moderate and high levels of burnout. This intervention programme was a person-directed intervention rather than an organisation-directed intervention. It has been found that approximately 82% of all person-directed interventions lead to a significant reduction in burnout, or positive changes in its risk factors (Awa et al, 2010).

The results show short term positive intervention effects on burnout among mental health nurses, over a six month period, the latter being due to the time limit of this study.

However, the study has been able to demonstrate that these positive outcomes can be achieved when changing perceptions and coping styles, which affect the emotions and behaviours of nurses. To the best of my knowledge, this is the first study of its kind carried out in Saudi Arabia. Nurses in the study showed improvements in burnout on all three subscales of the MBI.

There is an increasing interest in stress and burnout reduction and prevention programmes that are geared toward enhancing the clinical milieu of nurses working in stressful environments. In general, stress and burnout are considered among the most influential factors that impact clinical performance among health professionals, in particular nurses in mental health care settings (Ewers et al, 2002). Mental health nurses face numerous challenges, such as increased patient acuity, decreased length of stay, and changing patient expectations that may burden nurses and negatively affect the quality of care (Cleary et al., 2005).

Patients with mental illnesses are more demanding, acute, and disturbed. Given the shortage in the nursing workforce, and in particular mental health specialty, mental health nurses are challenged in trying to provide high quality mental health nursing care in a very demanding working environment. In this study, the researcher adapted and implemented a burnout reduction and prevention programme that was aimed at lowering the level of burnout among nurses working in mental health settings in SA. The focus of the programme was on promoting personal coping strategies and developing skills that would lead to confidence and competency. The training programme promoted coping strategies through social and communication skills training, lifestyle exploration, job and attitude adjustments, reflective practice, and other relaxation techniques. These were incorporated in the intervention programme which participants attended over two consecutive days.

The effects of the intervention on the three constructs of burnout (EE, DP, and PA) in mental health nurses were analysed to determine whether there was a burnout reduction at four time points: pre-intervention (baseline), and at one-month, three-month and six-month post-intervention. The analysis showed that there was a reduction in emotional exhaustion and depersonalization, and an increase in the level of personal accomplishment one month after the intervention. However, the effect of the intervention at the third and sixth month of follow-up showed an increase in emotional exhaustion and depersonalisation and a decrease in personal accomplishment, however results still showed improvement on all the baseline scores.

The intervention in this study showed a positive effect on burnout among mental health nurses. Although nurses' scores at three and six months post intervention decreased in terms of burnout scores, the scores remained positive when compared to baseline data. In other words, the emotional exhaustion and the depersonalization scores were lower and personal accomplishment was higher, than those at baseline. The results, firstly indicate that the intervention was effective in managing burnout per se and on all three subscales among mental health nurses, and remained so at one month post intervention. Secondly, and without any sustaining or booster intervention, at three and six months the intervention remained effective with scores still showing improvement when compared to those at baseline. In conclusion, the intervention was most effective in the short-term and retained its effectiveness over a prolonged period.

The results of this study support previous international studies regarding the positive effects of intervention programmes in reducing burnout among mental health nurses (Günüşen & Ustün, 2010; Kravits, et al., 2010; Onan, et al., 2013; Salyers, et al., 2011; Stier-Jarmer et al., 2016). Although the positive effects of the intervention are acknowledged, implementing the programme in a Saudi health care setting did require assumptions to be made, namely that the principles of such interventions are effective across cultures and variations in health care delivery systems. Therefore, this finding can be added to the current restricted body of knowledge regarding burnout reduction programmes being effective among mental health nurses within differing health care and socio-cultural systems.

As mentioned, the findings of this study did support previous research. For example, in their study, Onan et al. (2013) evaluated the effect of new ways of coping on burnout subscales (EE, DP and PA) prior to and immediately following a burnout prevention programme and one month post-intervention. They found that emotional exhaustion reduced significantly following the burnout prevention programme, while no significant reduction was found on the domains of depersonalization and personal accomplishment. However, the effects of the burnout programme on the emotional exhaustion subscale, was not sustained following one month post-intervention. The authors did not provide a rationale as to why the effect of the intervention was not sustained. Similarly, in their randomised controlled trial, Günüşen & Ustün (2010) found a significant reduction in emotional exhaustion scores of nurses immediately following a burnout reduction programme. However, the emotional exhaustion dimension was not sustained at the six-month follow-

up, indicating an increase in EE scores in both the experimental and control groups. In these two-studies, the effects of the intervention were not sustained, most participants stated that they need work-directed rather than person-directed interventions to reduce stress and burnout. While this study used a quasi-experimental design, it showed that the person-directed intervention was effective over a six-month period. This finding is in keeping with other studies (Kravits et al., 2010; Salyers et al., 2011).

The literature reported positive effects of burnout reduction strategies on the level of burnout among nurses (Ewers et al., 2002; Kravits et al.2010; Onan et al., 2013; Salyers, et al. 2011). However, the effectiveness of the programmes was only in the short term (less than one month post intervention). This study used four time points, and in doing so was able to establish that the effect of the programme delivered was sustained over a longer period of time. Cautiously, the effect has to be considered in terms of it being highly effective immediately post intervention, while it reduced in effectiveness over the subsequent six months. However, this reduction in effectiveness remained positive in comparison to baseline scores, but raises important questions as to how the initial improvement might be better sustained over a longer period of time. For example, the effects of booster sessions of the intervention used intermittently during a nurse's career could be useful to explore.

Based on the review of available literature, studies investigating the effects of burnout reduction programmes in the long-term were limited. Günüşen & Ustün (2010) evaluated the effects on the three burnout scales at baseline, post-intervention and 6 months follow-up, while Stier-Jarmer et al. (2016) investigated the programme's effectiveness at 5 time points: baseline, 3 weeks, 1, 3, and 6 months post-intervention; however, they did not explore depersonalization and personal accomplishment, but rather only focused on emotional exhaustion and other stress inducing parameters. Therefore, to date, this appears to be one of only three studies that have considered the longitudinal effects of a burnout prevention/reduction programme. This study adds to the body of knowledge regarding the positive effects of the burnout prevention programme, especially with regard to demonstrating its sustained effectiveness at six months post intervention on all three subscales.

Summary

Overall, this study offers a unique perspective in evaluating the effects of a burnout prevention programme among mental health nurses working in diverse and complex work environments in SA. In addition, this study has individually analysed each nurse characteristic to further understand possible predictors of burnout and its impact on their performance as healthcare providers. In terms of burnout income and years of experience in nursing practice were found to be the two major predictors that have a negative correlation on nurses' levels of burnout. Given the global evidence of burnout among mental health nurses, it would seem appropriate that such problems are carefully monitored and interventions introduced that will enable staff to be better equipped to deal with emotionality inherent in everyday mental health nursing practice (Warne & McAndrew, 2008). In addition, sponsors or policy-makers should understand the fundamental problem and its causes, such as the related factors and individual perceptions of nurses towards stress and burnout, in order to identify and target vulnerable groups. Once these have been established person-centred interventions can be developed to promote emotional and psychological wellbeing among nurses, and enhance compassionate and high quality patient care. The short-term effects of educational intervention to reduce burnout levels among mental health nurses appear promising. Further studies are warranted to validate the sustainable impact of burnout reduction programmes among mental health nurses. This would give more direction, and aid in designing better efficient burnout reduction programmes. These findings may go a long way in improving the wellbeing and burnout levels of mental health nurses, thereby enabling them to provide better patient care.

CHAPTER EIGHT: CONCLUSION

Introduction

This final chapter presents a short summary of the thesis, the strengths and limitations of the study, key findings, recommendations for policy, practice and future research regarding the utility of burnout reduction programmes, the unique contribution this study has made and my dissemination strategy.

Burnout in clinical settings is a global problem effecting service delivery, the quality of patient care, and the healthcare organizations as a whole. Given the global evidence of burnout among mental health nurses, it would seem appropriate that such problems are carefully monitored and interventions introduced that will enable staff to be better equipped to deal with emotionality inherent in everyday mental health nursing practice (Warne & McAndrew, 2008). In addition, sponsors or policy-makers should understand the fundamental problem of burnout; its causes, predictors and strategies that can be employed to promote emotional and psychological resilience and enhance high-quality compassionate patient care. In this study, the observed significant differences at four time points were modest, with the major impact being seen one month following intervention. Although significant effects of the intervention were not evident in the long-term, the results of the burnout prevention programme among mental health nurses must be viewed positively, as in the short term there was a significant reduction on all three subscales of the MBI and in the longer term (six months) results remained an improvement on those at baseline. This study therefore offers a unique perspective that may further provide a strong base for future research studies exploring and implementing educational burnout reduction or prevention programmes in healthcare settings, and perhaps more importantly, to develop and evaluate programmes and/or strategies for continued support that could bolster coping mechanisms to alleviate work related stress.

Strengths and Limitations to the Study

Strengths

This study was the first study in KSA to measure outcomes of a burnout prevention programme among mental health nurses. It is also one of few studies globally to use multiple measures of important outcomes.

The study was a quasi-experiment design investigating the effects of a burnout prevention program in Saudi Arabia. In this present study, the researcher used several time points to accurately measure the effects of the program. Therefore, the major purpose served by this research is to improve the working condition of Saudi Arabian psychiatric nurses.

One of the most important strengths of this study is the combination between the prevalence of burnout and the effectiveness of the burnout reduction programme. To the researcher knowledge, this was the first study that measured both the prevalence of burnout and the effectiveness of a burnout prevention programme in Saudi Arabia. Both outcome measures benefitted from the large sample size of the nurses within the study.

The application of the MBI, which is a standardized means of measuring burnout that has been interpreted into various languages and used in countries throughout the world, was helpful in eliciting burnout among Saudi nurses working in acute psychiatric care.

The results of the pre-intervention level of burnout among the nurses provided confirmation that the study was appropriate and necessary for the specific population that it was meant for.

Since the investigation involved all mental health nurses working in acute psychiatric in-patient care in SA, the sample size was sufficient to perform the tests used in the study. A greater number of mental health nurses in the sample from a particular area confirms a greater level of assurance that it is representative of the targeted population, elevating the potential of tests based on figures and reducing type II error, also known as beta error.

Limitations of Study

In this study, the positive effect of the programme was much more evident immediately following the intervention, while after a period of time there was a decline in its effect

although this remained as an improvement to the baseline scores. Although it is expected that effectiveness of any given interventions might decline over time, many possible explanations could be attributed to the decline of the effectiveness of the intervention, which may limit the results of this study. These are:

The number of participants (20) in each group was relatively large which might have compromised the level of interaction and ability to reflect (Stewart, 2009).

The selection of samples may introduce research bias as non-equivalent groups were randomly assigned to either intervention or control group. Nevertheless, each group within the sample was tested for similarities and differences to explore the possibility of heterogeneity. In this study, the author ensured that the intervention was provided for nurses at their institution with the groups being made up of colleagues from the same department and units. However, depending on the culture within the unit and/or department this could lead to contamination of the effectiveness of the intervention. In other words, if members of the group held negative perceptions regarding the programme this could have influenced the dynamics, and subsequently the effectiveness of participating in the programme (Bernard, 2007).

The effectiveness of the intervention over time could be related to no booster and/or support sessions having been offered to counteract or buffer unpleasant experiences and recurring signs and symptoms of burnout among mental health nurses. Therefore, nurses with high levels of burnout might struggle to manage their feelings and, in such situations, may not be in a position to make best use of the intervention program materials (Bernard, 2007). Such a scenario may increase dropout rate, which may result in missing outcome data. In this study, the dropout rate was 30% (14% for intervention group and 16% for control group). Repetitive interventions, with consistent support from the facilitators, are recommended to prevent high dropout rates, reduce burnout, and enhance the long-term health outcomes for mental health nurses.

Key Findings

Teambuilding/Peer support

This study indicates the importance of social support from peers in diminishing burnout, as is demonstrated in the results of the effectiveness of the burnout prevention programme (see Chapter 5)

Support Current teaching sessions

Continuous training is necessary in order to support newly qualified nurses so they feel supported in their early careers.

Encouragement and acknowledgement from Supervisors

It has been found that mental health nurses need encouragement and acknowledgement of their achievements from supervising/managerial staff in order to feel appreciated and increase morale.

Workload

When the burnout prevention program was implemented, it was the pressure of work that appeared to be the predominant factor for stress among nurses. Hence, on the part of the institution attempts must be made to restrict the amount of tasks a nurse is expected to do whilst on shift. One solution to this problem could include employment of more nurses that could significantly reduce the workload. The employment of assistant nurses and their effective utilisation to undertake tasks that are within their range of ability, such as taking patients' blood pressure and temperature and providing basic care, thus freeing qualified nurses to focus on tasks that require their skills, thereby decreasing the amount of non-nursing functions that they are required to do. This decision depends solely on the preferences of the Saudi Ministry of Health, since increasing the nursing workforce by introducing different levels of nurses is not a simple procedure due to financial constraints and current policy.

Variations of Burnout among Female and Male nurses

The findings of this study suggest females have a higher incidence of EE and lower personal accomplishment than their male counterparts. This requires further investigation, being explored within the Saudi context.

Length of future studies

Within this study the literature regarding burnout prevention programmes was reviewed, only to discover a dearth of studies with the majority only monitoring the effects of the intervention in the short term. This study addressed this issues by using four time point, the last one being six months after the intervention had taken place. Findings indicated some sustainability of the effects of the programme, but these may well be able to be improved further by booster sessions.

Recommendations

Policy recommendations

The findings of this research study must be considered by the Ministry of Education and Ministry of Health in KSA. The nursing shortage, particularly in terms of the indigenous population, is a threat to the delivery of quality healthcare in SA and remains an issue that needs to be urgently addressed. The evidence provided by this study regarding the role of burnout prevention programmes offers a platform for policy makes to start making inroads into how to start addressing this problem. Global evidence, together with the findings of this study, provide a framework for supporting mental health nurses within their chosen career by reducing stress and promoting self confidence in achieving their personal goals. A top down approach from these two government organisations will help establish a robust programme of burnout prevention, ensuring mental health nurses are emotionally safe in their clinical work, valued, and given the opportunity to reach their full potential. The introduction of such programmes of care towards nurses will help ensure the delivery of quality care within the mental health arena.

Recommendations for Nursing Managers

Nurse managers have a key role to play in ensuring their nursing staff have access to burnout prevention programmes. In order to accomplish this, developing courses under the observation of specialised nurses and administrator nurses who have been a part of this research should be introduced. Further, the course content should be aligned to the key findings of this study. Likewise, lessons from the literature reviewed and this study can help managers consider obstacles and hindrances that arise in the way of burnout prevention programme so as to come up with appropriate solutions for resolving these

difficulties. Various hindrances that occur in the burnout prevention programme including; insufficiency of time, staff shortages and not enough learning resources. It is the nurse managers who are accountable for addressing these issues by utilising diverse approaches, such how burnout prevention can best be achieved within the time available and how early career nurses and those with lengthy experience can support each other within clinical practice.

The mental health nurses who played an active role in carrying out the burnout prevention programme and those who might deliver future programmes should be offered rewards and incentives. Rewards could involve study scholarships, opportunities to be a part of any prestigious conference and/or increment remuneration.

Practice recommendations

While mental health nurses may be aware of burnout, there is often a disparity between knowing about it and taking action to address it. All nurses have a responsibility to ensure they are fit for practice and this includes taking care of self to ensure they are in a position to deliver quality care to those in need of their help. While a top down approach would ensure time and resources are available for burnout prevention programmes, the nurses themselves need to seize such opportunities and fully participate to enable their needs to be met. A burnout prevention programme needs to be meaningful to the individual and to ensure this happens it is essential mental health nurses engage with the programme so that they can use what they have learnt within their every day practice.

Future research

This research is very much the start of a continuing research programme. Given the diversity of Saudi culture there are a number of projects that could be undertaken to better understand the difficulties inherent in nursing within the KSA. For example, issues of burnout and its prevention for males and females needs further exploration. Examining the direct effects of burnout prevention programmes on services (hospitals), those delivering nursing care, teamwork and service users are all worthwhile projects that would promote a better understanding of healthcare in SA.

Unique Contribution of this Research

This research thesis provides important information regarding the level of burnout experienced by mental health nurses working in acute in-patient psychiatric services in Saudi Arabia and the impact of a burnout prevention programme at one, three and six month intervals . Whilst findings indicate a marked reduction in burnout in the short-term, this initial decrease declined over the subsequent six month period, but did not return to the level of burnout pre-intervention. This is a unique finding that has important implications for nurses and the organisations who employ them. It requires further research as to what could be done to sustain the decrease in burnout and to measure the effects of such interventions in terms of personal, organisational and patient costs.

Strengths of the study

- This unique study makes an important and valuable contribution to a small, but growing body of knowledge, both nationally (SA) and internationally. Research regarding the effects of a burnout prevention programme are limited, and the results of this study will provide an evidence base for leaders and managers of mental health nurses, as well as the wider organisation, to ensure the psychosocial wellbeing of those delivering care in what can be stressful environments.
- The study signifies the importance of using interventions to buffer burnout among nurses working in mental health settings. It identifies factors needing to be addressed in training workshops and raises issues in terms of harnessing improved psychological wellbeing over time, consequently improving the quality of care and outcomes within mental health care settings.
- This study is considered a pioneer study in Saudi Arabia and the Middle East, as there are no studies previous conducted investigating the effectiveness of using a burnout prevention programme on reducing burnout among mental health nurses.

Limitations of the study

- Using a self-administered survey introduces subjectivity, although use of the MBI was the most appropriate method of data collection for this study. However, cohort, randomized and observational methods may allow better understanding and might be more informative about the effect of a burnout prevention programme over a longer time period.

- The study sample was chosen from two mental health hospitals and included nurses who were providing direct care, supervisors and managers. While the sample size was appropriate, it could be suggested that findings are not generalisable to a range of healthcare professionals or different mental health care settings.

Dissemination plan

The motivation for this study was to examine the effects of a burnout prevention programme offered by the nurses in SA for mental health nurses. In order to raise awareness regarding the burnout prevention programme and its effectiveness, a report of the findings will be dispatched to the Saudi MOH and MOE. This will be followed up via a meeting with the director of the General Directorate of Health Affairs in Riyadh and other states in S.A to discuss the inferences of the study and how the findings could be transposed into an action plan for practice. In addition, findings will be disseminated via local, national and international presentations. I also plan to publish papers from this thesis in the hope that it will benefit future studies, not just in Arab nations, but also globally as burnout is a global issue among mental health nurses.



"All the praises and thanks be to Allah"

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Appendixes

Appendix A

Summary for all programme studies

No	Authors/Date	Research Objectives/ Questions	Study Design	Sample Size	Outcome Measures	Measurement Tool	Programme selected	Findings
1	Bittman, Bruhn, Stevens, Westergaard, and Umbach, 2003.	To examine the clinical and potential economic impact of a 6-session Recreational Music-making (RMM) protocol on burnout and mood dimensions, as well as on Total Mood Disturbance (TMD) in an interdisciplinary group of long-term Care workers.	Quantitative Study	A total of 125 participants . This included 24 men and 101 women.	An assessment of changes in burnout and mood Dimensions based on the Maslach Burnout Inventory And the Profile of Mood States scales.	Maslach Burnout Inventory Scale and the Profile of Mood States Scale.	RMM Intervention	<p>An overall multivariate eustress effect for the data set was noted to be significant.</p> <p>The study noted statistically-significant reductions of multiple burnout, mood dimensions, and TMD scores.</p> <p>The study also found out a cost saving of about \$89,100 for a single typical 100-bed facility, with total annual potential savings to the long-term care industry of \$1.46 billion.</p> <p>The study also found out that a cost-effective, 6-session RMM protocol helps reduce mood dimensions and burnout, and TMD among long-term care workers.</p>
2	Peterson, U., Bergstrom, G., Samuelsson, M., A. Bergstrom, M.A., Sberg, M. and Nygren, A. A. 2008.	The aim of this study was to test the effect of participating in a reflecting peer-support group on self-reported health, burnout and on perceived changes in work conditions.	Randomized quantitative study	The study involved 660 workers	The measurement outcomes examined in this study included burnout (exhaustion and	The Oldenburg Burnout Inventory Scale was used in this study. The General	Measurement of change in work conditions.	The researchers found significant intervention for general health, quantitative work demands, participation and development work opportunities and opportunities in support at work. The identified categories participants in this study included behavioral change, relief of

					disengagement), anxiety, depression, quantitative demands, general health and vitality.	Nordic Questionnaire for Psychological and Social Factors at Work was also used in the evaluation of quantitative demands of the study participants.		symptoms, structure, self-confidence, sense of belonging, knowledge, and talking to others in a similar situation. . The study found out the use of peer support groups can help alleviate work-related stress and burnout at a low cost.
3	Kravits, K., McAllister-Black, R., Grant, M. and Kirk, C. 2010.	The aim of this study was to develop a psycho-educational program that assists nurses in developing efficient stress management plans.	The study embrace a mixed methods approach of burnout evaluative.	The study sample for this study was 248 participants.	Emotional exhaustion was the measured outcome in this study and its influence in the development of burnout among the nurses.	Maslach Burnout Inventory was used to assess the EE, DP, and PA burnout syndromes. A wellness plan will also be used to assess the strategies employed by the participants to help develop a	Psycho-educational program was adopted in this study.	The study found out that impacting on the emotional wellness of nurses plays a major role in relieving them of burnout and stress syndromes.

						positive self-care attitude.		
4	Ewers, P., Bradshaw, T., McGovern, J. and Ewers, B. 2002.	The aim of this study was to evaluate the effect of Psychosocial Intervention Training (PSI) on the knowledge, attitudes and levels of clinical burnout in a group of forensic mental Health nurses.	The study embrace a quasi-experimental pretest/post-test design with subjects being randomly allocated to either a waiting list control condition or to the PSI training group	The study sample in this research was 33 nurses.	Knowledge, attitudes and levels of burnout were the main elements examined in this study	PSI Training	PSI educational training programs	The nursing staffs in the experiment group depicted increased knowledge and care towards persons with serious mental illness, consequently showing signs of reduced burnout and stress. The nursing staffs in the control group exhibited little knowledge in about serious mental illness in addition to recording high levels of burnout. The study thus postulates that people training nurses on best methods of handling persons with serious mental illnesses helps enhance their concern for them in addition to reducing the development of burnout in their working environments.
5	Onan, N., Isil, O. and Barlas, G.U. 2013.	This study aimed to evaluate the effect of coping with stress training on oncology nurses regarding their stress Symptoms, ways of coping with stress and burnout situations.	This study was a quasi-experimental research design with pre-post intervention assessment.	The study sample was 30 nurses working in oncology units.	Emotional exhaustion was a major outcome measure used in this study. Other measures were stress, burnout and coping ability.	Maslach Burnout Inventory tool was used in this study.	A training program with coping units was used in this study.	The study found out that emotional exhaustion was a major cause of burnout among nurses working in nursing oncology units.

6	Salyers, M.P., Hudson, C., Morse, G., Rollins, A., Monroe-DeVita, M., Wilson, C. and Freeland, L. 2011.	This study tested an intervention to reduce staff burnout	The study embraced a mixed methods approach in its execution.	The study sample was 103 participants only 85 participated	The main measurement outcomes in this study were emotional exhaustion and Depersonalization.	Maslach Burnout Inventory tool was used in this study	The study program in this study involved a direct training process where participants were educated on best methods to reduced work-related burnout.	The study noted that participants who took part in the study recorded reduced levels of burnout in addition to
7	Gunusen, N.P. and Ustun, B. 2010.	The aim of this study was to evaluate the effects of coping and support group interventions to reduce Burnout among nurses.	The study embrace quantitative randomized design in its quest to meet its set objectives.	A total of 108 sample size of study nurses was used in this study.	The major outcome measure examined in this study was emotional exhaustion and burnout.	Maslach Burnout Inventory tool was used in the study process.	Person directed interventions were used in this study.	The study observed that interventions help reduce the level of emotional exhaustions leading to a reduction in burnout among the affected people. Additionally, the study proposes that continuous intervention exercises can help reduce occurrence of burnout in the long term.
8	Redhead, K., Bradshaw, T., Braynion, P., and Doyle, M. 2011.	The aim of the study was to evaluate the outcomes of an experimental PSI training program on the knowledge, attitudes and levels of clinical burnout of qualified and unqualified nursing staff working in the LSU and to assess evidence of implementation of PSI in practice.	This study was a quasi-experimental research design incorporating both the experiment and control groups.	A sample of 79 nurse participants was selected for this study.	The main measurement outcomes in this study were knowledge, attitude and burnout.	An attitude PSI scale was used in this study in addition to the use of the Maslach Burnout Inventory tool.	A PSI training program was used in this study.	The study found out that training to increase their knowledge about persons with serious mental illness helps reduce levels of burnout.

9	Isaksson, K., Gude, T., Tyssen, R. and Aasland, O. 2010.	This study investigated levels and predictors of change in burnout dimensions after an intervention for help-seeking nurses.	The study utilized a quantitative research design.	A sample of 172 nurses took part in this study	The measurement outcomes in this study were emotional exhaustion and burnout.	Maslach's Burnout Inventory was employed in this study	A counseling intervention program was used in this study	The study noted that the mean exhaustion level drastically reduced after the intervention exercise.
10	Le Blanc, P.M., Hox, J.J. and Taris, T.W. 2007.	The aim of the study was to examine the effects of a team-based burnout intervention program combining a staff support group with a participatory action Research approach.	The study used a quasi-experiment design.	A sample of 664 participants was used in this study.	Emotional exhaustion and depersonalization were the main measurement outcomes examined in this study.	Maslach's Burnout Inventory was employed in this study	A PSI training program was used in this study	The study found out that burnout levels were significantly related to the changes in job perception over time.
11	Mackenzie, C.S., Poulin, P.A., and Seidman-Carlson, R. 2006.	The aim of this study was to find out the most effective ways to reduce and prevent burnout.	The study used a quasi-experiment design.	A sample of 30 participants took part in the study.	The main measurement outcomes in this study were burnout, relaxation and life satisfaction.	Maslach's Burnout Inventory scale, Smith Relaxation Dispositions Inventory scale and the Intrinsic Job Satisfaction subscale were used in this study.	A mindfulness-training program was used in this study.	The study found out that mindfulness training helps reduce burnout, enhance relaxation, and improve life satisfaction for nurses.

12	Medland, J., Howard-Ruben, J., and Whitaker, E. 2004.	The aim of this study was to identify psychosocial wellness and the avoidance of burnout as key priorities for the retention of oncology nurses and to describe a program designed for a specific setting to enhance the psychosocial wellness and coping skills of oncology nurses.	Selected Published research, books, and journal articles; theory; practice; and personal experience.	More than 150 staff members participated in the retreat.	The main measurement outcomes examined in this study were the coping skills and their impact in reducing burnout.	Data sources from relevant databases.	Published research, books, and journal articles; theory; practice; and personal experience.	The study found out that fostering psychosocial wellness in the workplace potentially can increase oncology nurse retention.
13	Awa, W.L., Plaumann, M. and Ulla, W. 2010.	The aim of this study was to evaluate the effectiveness of intervention programs at the workplace or elsewhere aimed at preventing burnout, a leading cause of work related mental health impairment.	Selected studies of burnout was conducted in the databases such as Medline, PsycINFO and PSYNDE	A total of 25 primary intervention studies were reviewed.	Burnout was the main measurement outcome in this study.	A systematic search of burnout in existing databases	Data was also extracted from papers found. As well as through a hand search.	The study observes that there is a serious need for refresher programs to help counter the negative effects of burnout in the workplace.

Appendix B

The Critical Appraisal Skills Program

	Questions to ask:
Accuracy	<p>Is the information provided deemed reliable?</p> <p>Is the information provided shown to be error-free?</p> <p>Is the information provided based on proven evidential facts?</p> <p>Can the information provided be verified against other specific, reliable sources?</p>
Authority	<p>Who is the author?</p> <p>Does he or she have the qualifications to speak/write on the analyzed topic?</p> <p>Is the author affiliated with a reputable university or organization in the subject field of discussion?</p>
Objectivity	<p>What is the intended purpose of the information that is provided?</p> <p>Is the information based on facts or opinions?</p> <p>Is the information that is provided biased?</p>
Currency	<p>When the information was originally published; was it peer-reviewed; and what were the proceedings?</p> <p>Is the evidential information current or outdated?</p> <p>Does currency matter to the studied topic?</p>
Coverage	<p>Does the information that has been covered meet the current study's information requirements?</p> <p>Does it provide basic or in-depth coverage?</p>

Appendix C

Educational program

The intervention program consisted of two consecutive days (12 hours in total-6 hours per day).

Day 1

Time	Topic	Objectives	Activities
8:00-9:00	Introduction about the study (purposes, phases, participants' roles) Conducting pre-test		Lecturers Group Discussions
9:00-10:30	Burnout: definition, signs and symptoms, and associated factors	By the end of this session, the participant will be able to: Define burnout. Identify the causes of burnout. List signs and symptoms of burnout. Identify the associated factors with burnout.	Lecturers Group Discussions
10:30-12:00	General tips and strategies to decrease burnout	By the end of this session, the participant will be able to: Identify the general tips and strategies to deal with burnout. Use the tips and strategies to deal with burnout.	Lecturers Group Discussions
12:00-1:00	Lunch		
1:00-3:00	<u>Strategies for reducing burnout:</u> Progressive muscle relaxation	By the end of this session, the participant will be able to: Define progressive muscle relaxation. Recognize the benefits of doing	Lecturers Demonstration Videos Role Playing

	Application of strategy	<p>progressive muscle relaxation.</p> <p>Know the situations where progressive muscle relaxation should be avoided.</p> <p>Know the general guidelines for practicing progressive muscles relaxations.</p> <p>Practice progressive muscle relaxation properly.</p>	Group Discussions
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Day 2

Time	Topic	Objectives	Activities
8:00-10:00	<u>Strategies for reducing burnout:</u> Visual imagery Application of strategy	<p>By the end of this session, the participant will be able to:</p> <p>Define visual imagery.</p> <p>Identify the guidelines for practicing visual imagery.</p> <p>Practice relaxation through visual imagery in a good manner.</p>	Lecturers Demonstration Videos Role Playing Group Discussions
10:00-12:00	<u>Strategies for reducing burnout:</u> Social skill training Application of strategy	<p>By the end of this session, the participant will be able to:</p> <p>Define social skills training.</p> <p>List some examples of social skills training.</p> <p>Demonstrate the techniques and basic structures of doing social skills training.</p>	Lecturers Demonstration Videos Role Playing Group Discussions
12:00-1:00	Lunch		
1:00-3:00	<u>Strategies for reducing burnout:</u>	<p>By the end of this session, the participant will be able to:</p>	Lecturers Demonstration

	Communication skills training Application of the strategy	Identify the importance of communication skills training. Practice communication skills in nonverbal communications, conversation skills, and assertiveness.	Videos Role Playing Group Discussions
	Feedback and post test		

Burnout: Definition, causes, signs and associated factors

Definition:

Burnout is a state of emotional, mental, and physical exhaustion caused by excessive and prolonged stress. It occurs when you feel overwhelmed and unable to meet constant demands. As stress continues, you begin to lose the interest or motivation that led you to take on a certain role in the first place.

Burnout reduces your productivity and saps your energy, leaving you feeling increasingly helpless, hopeless, and resentful. Eventually, you may feel like you have nothing more to give.

Burnout is described as comprising of three inter-related dimensions:

emotional exhaustion: which is characterized by lack of enthusiasm, energy and diminished emotional resources;

depersonalisation which is described as negative attitudes toward clients, colleagues, and the organization; and

reduced personal accomplishment which manifests as a worker's tendency toward self-evaluation, and dissatisfaction with their work performance.

Burnout is defined as being “physical, emotional, and psychological responses to work-related stress” (Maslach, et al. 1996). Physical responses refer to low energy, chronic fatigue, and weaknesses. Emotional responses refer to depression, hopelessness, and helplessness, while psychological responses encompass withdrawal from clients and co-workers.

Causes of burnout:

Burnout is not caused solely by stressful work or too many responsibilities. Other factors contribute to burnout, including your lifestyle and certain personality traits. What you do in your downtime and how you look at the world can play just as big of a role in causing burnout as work or home demands.

Work-related causes of burnout

Feeling like you have little or no control over your work

Lack of recognition or rewards for good work

Unclear or overly demanding job expectations

Doing work that's monotonous or unchallenging

Working in a chaotic or high-pressure environment

Lifestyle causes of burnout

Working too much, without enough time for relaxing and socializing

Being expected to be too many things to too many people

Taking on too many responsibilities, without enough help from others

Not getting enough sleep

Lack of close, supportive relationships

Personality traits can contribute to burnout

Perfectionistic tendencies; nothing is ever good enough

Pessimistic view of yourself and the world

The need to be in control; reluctance to delegate to others

High-achieving, Type A personality

Signs and symptoms of Burnout

Burnout is a gradual process that occurs over an extended period of time. It doesn't happen overnight, but it can creep up on you if you're not paying attention to the warning signals. The signs and symptoms of burnout are subtle at first, but they get worse and worse as time goes on.

Think of the early symptoms of burnout as warning signs or red flags that something is wrong that needs to be addressed. If you pay attention to these early warning signs, you can prevent a major breakdown. If you ignore them, you'll eventually burnout.

Physical signs and symptoms of burnout

Feeling tired and drained most of the time

Frequent headaches, back pain, muscle aches
Change in appetite or sleep habits
Lowered immunity, feeling sick a lot

Emotional signs and symptoms of burnout
Sense of failure and self-doubt
Feeling helpless, trapped, and defeated
Detachment, feeling alone in the world
Loss of motivation
Decreased satisfaction and sense of accomplishment

Behavioral signs and symptoms of burnout
Withdrawing from responsibilities
Isolating yourself from others
Procrastinating, taking longer to get things done
Using food, drugs, or alcohol to cope
Taking out your frustrations on others
Skipping work or coming in late and leaving early

In addition, burnout among nurses has been associated with many factors. Such factors include: availability of social support, job satisfaction, patient mortality rate, stress and inadequate coping skills, lack of clinical supervision, intention to leave the profession or job, poor work environment, gender, age, years of experience at work, working in more than one institution, being involved in management positions, hardiness, and nurses' quality of life.

General Tips and Strategies to Deal with Burnout

First: Make Adjustments to Your Lifestyle

1. Take Care of Your Physical Well-being

You may start to feel some relief if you begin to treat your body right. That means getting a good night's rest, exercising for at least 30 minutes several times per week, and eating a balanced diet.

2. Have a Social Life

Having relationships makes us feel more content, and if you have strong relationships with family and friends, you'll find that joy bubbling over into your work life.

3. Enjoy Your Hobbies

Depending on your current situation, you may not be able to have much of a social life, especially if you are living in a new place where you do not know anyone. In that case, get yourself out of the house and start a hobby or two.

4. Take Regular Vacations

Many people save up their vacation time and take one- or two-week-long vacations per year. Unfortunately, many of those vacations are not used to relax, but simply to get projects done around the house. Instead of taking a week off every six months, take days off regularly, and just relax. By taking days off regularly, you'll always have something fun to look forward to.

5. Take 15 Minutes to Relax Daily

Take 15 minutes (or more) each day to simply disconnect from the world. This time needs to be your time, not your kids' time or your spouse's time. If you can do this first thing in the morning, it'll put your mind in a more relaxed state for the day. If not, it is also beneficial during lunch, after work, or right before bed.

Second: Make Adjustments to Your Job

6. Open Lines of Communication With Your Manager

You do not need to tell your boss directly that you are struggling with burnout. Instead, simply start a dialogue about your position. If your tasks have become mundane, express that you'd like to be challenged more. If you're feeling overworked, express that you'd prefer to focus on fewer tasks so you can give them your full attention and do a better job. Whatever you do, be positive. You don't want to approach your boss with complaints.

7. Clarify Job Expectations and Responsibilities

You cannot do your job well if you are unsure of what you are to be doing. If you are missing your target, it may be why you are not receiving the recognition you believe you deserve for your hard work. This is especially important if you have multiple bosses or are reporting to more than one department.

8. Learn to Say “No”

Like many professionals, you may have a tendency to say yes to everything that is requested. If you don't do it, you fear it will reflect poorly on you, resulting in negative performance reviews and loss of recognition and promotions.

While there is an ounce of truth to those fears, your health and well-being are more important. Plus, a good manager will respect those who recognize their limits and don't try to take on more than they can handle.

9. Ask for New Duties

I have experienced burnout in the past due to boredom. Many tasks and projects I performed were redundant, and I was not learning new things or growing professionally. If you find yourself in that position, ask for new duties. If you are able to take on new tasks, you may even relieve someone else who is overburdened with work.

Third: Make Adjustments to Your Attitude

10. Let Some Things Slide

Sometimes in life we need to let go and let things slide. If you would normally go above and beyond the call of duty, but you are unable to keep working at that level, it's okay to be less than perfect. It's also okay to delegate tasks and lose some control if you are in a position to delegate.

11. Get Support

If you struggle with severe confusion or feelings of inadequacy, seek help. Talk to a trusted friend or family member – not your coworkers – about what you are feeling. If your company offers an employee assistance program, get an appointment with a counselor. Workplace burnout is a common problem that they deal with, and they can guide you through the process of recovery.

12. Take a Stress Management Course

Take a stress management course or a time management course. While this does not offer the individualized help that a counselor could provide, you can learn some tricks to better manage your burnout.

13. Change What You Can, Accept What You Can't

You may spend time and energy trying to change those things that cannot be changed. Instead, learn to accept them, and do away with the harmful, stressful worrying. Perhaps you will come to peace with your job, or perhaps you will gain the courage to leave.

Fourth: Other Tips & Strategies to Deal with Burnout

14. Search for the Source of Your Discontent

Sometimes we have no idea what is upsetting us, and we let that discontent rule our lives. Instead, you should question it: Where does it come from? Is the problem boredom? Is it fear or insecurity? If you can gain an understanding of your burnout, you'll find it easier to control.

15. Don't Do Anything Rash

Don't hastily quit your job or take out your frustration on your boss. Keep your cool, and carefully consider every decision before you act. No decision should ever be rushed.

16. Know What Motivates You

Everyone is motivated by something different. Some people thrive on positive feedback, while others know they need to work harder if they are given anything other than a flawless review. For others, motivation comes with raises and promotions or special treatment.

17. Find a New Job

The most effective way to get over workplace burnout is to get a new job. However, be careful to make the right move for yourself. Figure out whether you need to merely change jobs, or if you really need to switch careers. Also, evaluate whether you need a new job within your current company, or if you should search for work at a new company.

Progressive Muscle Relaxation (PMR)

Definition

Progressive muscle relaxation is a systematic technique for achieving a deep state of relaxation.

PMR is a technique that involves tensing specific muscle groups and then relaxing them to create awareness of tension and relaxation. It is termed progressive because it proceeds through all major muscle groups, relaxing them one at a time, and eventually leads to total muscle relaxation.

PMR helpful for:

Anxiety that is strongly associated with muscle tension, tension headaches, backaches, tightness in the jaw, tightness around the eyes, muscle spasms, high blood pressure, insomnia, and racing thoughts.

Benefits of PMR

A decrease in generalized anxiety

A decrease in anticipatory anxiety

Improved concentration

An increased sense of control over moods

Increased self-esteem

Increased spontaneity and creativity

Contraindications

There are no contraindications for progressive muscle relaxation unless the muscle groups to be tensed and relaxed have been injured. If you take tranquilizers, you may find that regular practice of progressive muscle relaxation will enable you to lower your dosage.

Duration of practicing PMR

The idea is to tense each muscle group hard (not so hard that you strain, however) for about 10 seconds, and then to let go of it suddenly. You then give yourself 15-20 seconds to relax, noticing how the muscle group feels when relaxed in contrast to how it felt when tensed, before going on to the next group of muscles.

The entire progressive muscle relaxation sequence should take you 20-30 minutes the first time. With practice you may decrease the time needed to 15-20 minutes. You might want to record the above exercises on an audio cassette to expedite your early practice sessions. Practice at least 20 minutes per day. Two 20-minute periods are preferable. Once a day is mandatory for obtaining generalization effects.

Guidelines for Practicing Progressive Muscle Relaxation

Find a quiet location to practice where you won't be distracted. Don't permit the phone to ring while you're practicing.

Practice at regular times. On awakening, or before meals are generally the best times. A consistent daily relaxation routine will increase the likelihood of generalization effects.

Practice on an empty stomach. Food digestion after meals will tend to disrupt deep relaxation.

Assume a comfortable position. Your entire body, including your head, should be supported.

Lying down on a sofa or bed or sitting in a reclining chair are two ways of supporting your body most completely. (When lying down, you may want to place a pillow beneath your knees for further support.) Sitting up is preferable to lying down if you are feeling tired and sleepy. It's advantageous to experience the full depth of the relaxation response consciously without going to sleep.

Loosen any tight clothing and take off shoes, watch, glasses, contact lenses, jewellery, and so on.

Make a decision not to worry about anything. Give yourself permission to put aside the concerns of the day. Allow taking care of yourself and having peace of mind to take precedence over any of your worries.

Assume a passive, detached attitude. This is probably the most important element. You want to adopt a "let it happen" attitude and be free of any worry about how well you are performing the technique.

Concentrate on what is happening. Feel the build-up of tension in each particular muscle group. It is often helpful to visualize the particular muscle group being tensed.

Progressive Muscle Relaxation Technique

To begin, take three deep abdominal breaths, exhaling slowly each time. As you exhale, imagine that tension throughout your body begins to flow away.

Forehead - Wrinkle your forehead, try to make your eyebrows touch your hairline for five seconds. Relax.

Eyes and nose - Close your eyes as tightly as you can for five seconds. Relax.

Neck- Tighten the muscles in the back of your neck by pulling your head way back, as if you were going to touch your head to your back (be gentle with this muscle group to avoid injury). Focus only on tensing the muscles in your neck. Hold ... and then relax. Since this area is often especially tight, it's good to do the tense-relax cycle twice.

Lips, cheeks and jaw - Draw the centres of your mouth back and grimace for five seconds. Relax. Feel the warmth and calmness in your face.

Hands - Extend your arms in front of you. Clench your fists tightly for five seconds. Relax. Feel the warmth and calmness in your hands.

Forearms - Extend your arms out against an invisible wall and push forward with your hands for five seconds. Relax.

Upper arms - Bend your elbows. Tense your biceps for five seconds. Relax. Feel the tension leave your arms.

Shoulders - Shrug your shoulders up to your ears for five seconds. Relax.

Tighten the muscles around your shoulder blades by pushing your shoulder blades back as if you were going to touch them together. Hold the tension in your shoulder blades ... and then relax. Since this area is often especially tense, you might repeat the tense-relax sequence twice.

Back - Arch your back off the floor for five seconds. Relax. Feel the anxiety and tension disappearing.

Stomach - Tighten your stomach muscles for five seconds. Relax.

Hips and buttocks - Tighten your hip and buttock muscles for five seconds. Relax.

Thighs - Tighten your thigh muscles by pressing your legs together as tightly as you can for five seconds. Relax.

Feet - Bend your ankles toward your body as far as you can for five seconds. Relax.

Toes - Curl your toes as tightly as you can for five seconds. Relax.

Tighten your calf muscles by-pulling your toes toward you (flex carefully to avoid cramps). Hold ... and then relax.

Visual Imagery

While some people like tensing and relaxing, others can often become more relaxed by simply imaging a beautiful place.

This technique uses your mind to distract you from pain, tension, or problems. It asks you to create images in your mind that are so captivating, so rich in detail, and so all-consuming for your mind, that you get lost in the images your mind creates.

Guidelines of visual imagery

Start the exercise by sitting or lying in a comfortable position and deep breathing. Unlike the tense-relax technique, the focus is not on your body but on a pleasant image.

You will want to decide where you want to go in your image before starting. Some people like to have several destinations in mind since, at first, it may be difficult to stay interested in any one image for very long.

You can leave your eyes open or you can shut them. Most people prefer to close their eyes when creating a mental image.

Your image can take you anywhere of your choosing. For example, it could be a beach, a mountain retreat, a hiking trail, your own back yard, a fishing pond, a clean kitchen with tasty cinnamon buns baking, a favorite restaurant, or a computer generated virtual reality.

In creating your image, use all your senses. For example: If imagining a wood try to imagine:

Vision: the moss, the trees, animals, the sun, the soil, leaves

Smell: smell the moist earth, the heavy scent of green vegetation

Sounds: hear the birds, sticks cracking, animals moving, creeks
Feel: the cool moist air, the cool soil, the warm sun in a clearing
Taste: the fresh water from a creek, a ripe berry, a sweet apple

Start off with 5 minutes then gradually expand your imagery time to about 15-20 minutes per day.

Steps to relaxation through visual imagery

Step 1: Enter Your Image.

- As you enter your image notice the view.
- What is in the distance?
- What do you hear?
- Are there any immediate smells or tastes?
- Reach out and touch the things in your immediate environment.
- How do these things feel?
- What is under your feet? How does this feel?
- Are there any new smells or sounds?
- What is the temperature? Make it comfortable.
- Look above you. What do you see? What do you hear now?
- Identify a path along which you will travel as you journey through this place

Step 2: The Journey.

- As you begin your journey take several additional deep breaths.
- Your journey should take you deeper and deeper into your image.
- As you travel, be keenly aware of the sights passing by you.
- As you travel, be aware of new sounds that occur.
- As you travel, be aware of the temperature, and feelings under your feet.
- As you travel, be aware of the things you can touch and examine their texture.
- As you travel, be aware of smells and tastes that enter your image.
- Continue on your journey until you find a place of rich sensory experiences. This is your private place.

Step 3: The Private Place

- Once you reach your private place take several additional deep breaths.
- Your private place should make you feel calm, peaceful, and sense of pleasure.

- In your private place, be keenly aware of the sights around you.
- In your private place, be aware of new sounds that occur.
- In your private place, be aware of the temperature, and feelings under your feet.
- In your private place, be aware of the things you can touch and examine their texture.
- In your private place, be aware of smells and tastes that enter your image.
- Stay in your private place for several minutes allowing your imagination to run free with pleasurable images.

Step 4: The Return Home

- Before you start to return home, do the following:

Notice how your body feels

You will want to return to this feeling in the future

- Try and recall the best aspects of your journey and of your private place. You will want to return to these in the future.
 - Prepare to leave by counting backwards from 3 to 1.
- 3 – Become aware of your surroundings (location, people, noises)
- 2 - Move your feet, legs, hands, rotate your head
- 1 – Open your eyes feeling re-energized, refreshed, and relaxed

Social Skills Training

Definition

Social skills are the behaviors, verbal and non-verbal, that we use in order to communicate effectively with other people. Social skills are governed by culture, beliefs and attitudes. They continuously change and develop throughout our lives.

Some examples of social skills are:

Eye contact with others during conversation

Smiling when greeting people

Shaking hands when meeting someone

Using the right tone and volume of voice

Expressing opinions to others

Perceiving how others are feeling and showing empathy

Appropriate emotional responses (e.g. crying when something sad happens; laughing when someone says something funny)

Social skills are the tools that enable people to communicate, learn, ask questions, ask for help, get their needs met in appropriate ways, get along with others, make friends and develop healthy relationships, protect themselves, and generally be able to interact with anyone and everyone they meet in their journey through life.

Social skills training (SST) is a form of behavior therapy used by teachers, therapists, and trainers to help persons who have difficulties relating to other people and to become socially competent.

A major goal of social skills training is teaching persons who may or may not have emotional problems about the verbal as well as nonverbal behaviors involved in social interactions.

SST proceeds on the assumption that when people improve their social skills or change selected behaviors, they will raise their self-esteem and increase the likelihood that others will respond favorably to them. Trainees learn to change their social behavior patterns by practicing selected behaviors in individual or group therapy sessions. Another goal of social skills training is improving a person's ability to function in everyday social situations.

Social skills help people begin to develop and build on the essential character traits of responsibility, trustworthiness, caring, respect, fairness, and citizenship. These traits provide people with the internal moral compass that enables them to distinguish right from wrong, understand why it is important to do what is right, and make good choices in their thinking and behavior.

Techniques in social skills training

Therapists who use social skills training begin by breaking down complex social behaviors into smaller portions. Next, they arrange these smaller parts in order of difficulty, and gradually introduce them to the persons. For example, a therapist who is helping a person learn to feel more comfortable at parties might make a list of specific behaviors that belong to the complex behavior called "acting appropriately at a party," such as introducing oneself to others; making conversation with several people at the party rather than just one other guest; keeping one's conversation pleasant and interesting; thanking the host or hostess before leaving; and so on. The person would then work on one specific behavior at a time rather than trying to learn them all at once.

Such specific techniques as instruction, modeling, role-playing, shaping, feedback, and reinforcement of positive interactions may be used in SST. For example, instruction may be used to convey the differences among assertive, passive, and aggressive styles of communication. The technique of monitoring may be used to ask persons to increase their eye contact during a conversation. In role-playing exercises, group members have the opportunity to offer feedback to one another about their performances in simulated situations.

Basic SST implementation structure

One of the most critical tasks in preparation for social skills training is the selection of suitable target behaviors. It is often more helpful for the therapist to ask the person to identify behaviors that he or she would like to change, rather than pointing to problem areas that the therapist has identified. The treatment should consider the person's particular needs and interests. Therapists can prepare persons for homework by explaining that the homework is the practice of new skills in other settings; and that it is as relevant as the therapy session itself.

All social skills training follows the same basic structural and implementation outline:

1. Identifying the problem

Firstly, the major social problem needs to be identified. For example, are the problems with socializing predominantly a fear of large gatherings of people? Or speaking to people at work?

2. Setting the goals

As with any type therapy, your therapist will help you develop specific goals for the therapy. This will include a broad overall goal as well as focused goals that may change from session to session. For SST, the broad overall goal may be the ability to socialize comfortably in the staffroom, whereas the individual goals will be skill-specific (e.g. learning how to greet someone, ask how they are and respond appropriately).

3. Modelling

Before you are expected to perform the skill, your therapist will model the skill you are focusing on, so that you can see exactly what you need to do before attempting to do it yourself.

4. Roleplaying

After your therapist has modelled the skill, you will be asked to role-play. This practice is a very important aspect of SST. It may feel odd to role-play, but until you have practiced the skill, it is hard to use it outside the safety and confinement that therapy sessions provide.

5. Feedback

Your therapist will provide feedback at the end of each session. This feedback will help you to identify your strengths and weaknesses, and the things you especially need to work on and practice.

6. Homework

In between sessions, your therapist will set little “homework” challenges that you are required to do in your own time throughout the week. Usually the homework will carry on directly from the session, so that you practice the new skill you learnt. Depending on your success at meeting the challenge, you will focus on a new, more difficult skill in the next session.

Content of social skills training

SST may be used to teach people specific sets of social competencies. A common focus of SST programs is communication skills. A program designed to improve people's skills in this area might include helping them with nonverbal and assertive communication and with making conversation. It might also include conversational skills that are needed in different specific situations, for example job interviews, and informal parties. The skills might be divided further into such subjects as beginning, holding, and ending conversations, or expressing feelings in appropriate ways.

Another common focus of SST programs involves improving a person's ability to perceive and act on social cues. Many people have problems communicating with others because they fail to notice or do not understand other people's cues, whether verbal or nonverbal. Learning to understand another person's spoken or unspoken messages is as important as learning conversational skills. A social skills program may include skills related to the perceptual processing of the conversation of other individuals.

Scheduling

Social skills training may be given as an individual or as a group treatment once or twice a week, or more often depending upon the severity of a person's problems and the level of his or her social skills. Social skill training groups usually consist of approximately 10 persons, a therapist, and a co-therapist.

Culture and gender issues

Social skills training programs may be modified somewhat to allow for cultural and gender differences. For example, eye contact is a frequently targeted behavior to be taught during social skills training. In some cultures, however, downcast eyes are a sign of respect rather than an indication of social anxiety or shyness. In addition, girls or women in some cultures may be considered immodest if they look at others, particularly adult males, too directly. These modifications can usually be made without changing the basic format of the SST program.

Generalization or transfer of skills

Current trends in social skills training are aimed at developing training programs that meet the demands of specific roles or situations. This need developed from studies that found that social skills acquired in one setting or situation are not easily generalized or transferred to another setting or situation. To assist persons in using their new skills in real-life situations, trainers use role-playing, teaching, modeling, and practice

Normal Results

The benefits of social skills training programs include flexibility. The treatment can take place either as individual or group therapy, and new trainers can learn the techniques of SST fairly quickly. An additional advantage of SST is that it focuses on teaching skills that can be learned rather than emphasizing the internal or biological determinants of social adequacy.

While the long-term goals of social skill instruction are generalization (using the right skill at the right time in the right situation) and internalization (making skills a natural part of one's everyday life), the short-term benefits to teaching children skills cannot be overstated.

Communication skills training

Building good relationships with other people can greatly reduce stress in your life. Also, improving your social support is linked to better mental health in general, since having good friends can act as a "buffer" for feelings of anxiety and low mood.

Why are communication skills important?

Communication skills are the key to developing and keeping friendships and to building a strong social support network. They also help you take care of your own needs, while

being respectful of the needs of others. People aren't born with good communication skills; like any other skill, they are learned through trial and error and repeated practice.

Some areas of communication that you may want to practice are:

Nonverbal Communication

Conversation Skills

Assertiveness

First: Nonverbal Communication

A large part of what we communicate to each other is nonverbal. What you say to people with your eyes or your body language is just as powerful as what you say with words. Your body language and tone of voice does communicate powerful messages to others about you:

Emotional state (e.g., impatience, fear)

Attitude towards the listener (e.g., submissiveness, contempt)

Knowledge of the topic

Honesty (do you have a secret agenda?)

Step 1: Identifying Your Trouble Spots

To get started, ask yourself a few questions:

Do I have trouble maintaining eye contact when talking with others?

Do I smile too much because of nervousness? Too little?

Do I keep my head down?

Do I speak with a timid voice?

Do I speak too quickly when I am anxious?

Do I cross my arms and legs?

Some of the nonverbal behaviors you may want to pay attention to are:

Posture (e.g., head up and alert, leaning forward)

Movement and gestures (e.g., keeping arms uncrossed)

Physical distance (e.g., standing closer when talking to others)

Eye contact (e.g., making appropriate eye contact when talking)

Facial expression (e.g., smiling warmly)

Volume of Voice (speaking at a volume easily heard)

Tone of Voice (e.g., speaking with a confident tone)

Step 2: Experiment with and Practice Non-Verbal Skills

Try to practice only one skill at a time, so you can make sure you have mastered it before moving on to the next skill.

You may want to ask a trusted friend or relative to give you some feedback on your non-verbal behavior. This feedback can be very useful, as we often do not really know how we appear to others.

If you are able to, it may be useful to videotape yourself having a conversation, and note what your body language may be communicating.

You can also practice your new nonverbal skills in front of a mirror.

Once you have gained a little confidence and practice using nonverbal communication skills at home, try it out in real interactions. Try increasing the amount of eye contact you make when talking with others; smile more, and pay attention to the reactions of others.

Second: Conversation Skills

One of the biggest challenges is starting conversations and keeping them going. It is normal to struggle a bit when you are trying to make small talk, because it is not always easy to think of things to say.

Step 1: Identifying Your Trouble Spots

Below are some questions that you may want to ask yourself to identify the areas you want to work on:

Do I have trouble starting conversations?

Do I quickly run out of things to say?

Do I tend to say “yes”, nod, and try to keep other people talking to avoid having to talk?

Am I reluctant to talk about myself?

Tips for Starting a Conversation:

Start a conversation by saying something general and not too personal, for example talk about the weather (“Gorgeous day, isn’t it?”), pay a compliment (“That sweater looks great on you”), make an observation (“I noticed that you were reading a book on sailing, do you have a boat?”), or introduce yourself (“I don’t think we have met, I’m...”).

You don’t need to say anything extremely witty. It’s better to be sincere and genuine.

Once you have talked for a while, especially if you have known the person for some time, it might be appropriate to move on to more personal topics, for example, relationships, family matters, personal feelings, spiritual beliefs etc...

Remember to pay attention to your nonverbal behavior -make eye contact and speak loudly enough that others can hear you!

Tips for Keeping a Conversation Going:

Remember that a conversation is a two-way street – don't talk too little, or too much! As much as possible, try to contribute to about one-half of the conversation when speaking one on one.

Disclose some personal information about yourself, such as your weekend activities, or a hobby or interest.

Ask questions about the other person, but when you are first getting to know someone, take care not to ask questions that are too personal. For example, "How do you like that new restaurant?"

Try to ask open-ended questions rather than close-ended questions.

Do I talk too much when I'm nervous?

Tips for Ending a Conversation:

Remember, all conversations end sometime – don't feel rejected or become anxious as a conversation nears its end.

Think of a graceful way to end the conversation. For example, you can say that you need to refill your drink, catch up with another person at a party, get back to work, or you can promise to continue the conversation at a later time or date.

Step 2: Experiment with and Practice Your Conversation Skills

The next time you have an opportunity to practice starting or ending a conversation, try breaking some of your normal patterns. For example, if you tend not to speak about yourself, try to share your thoughts and feelings a bit more, and see what happens. Or, if you tend to wait for the other person to end the conversation, try a graceful exit yourself first.

Below are a few suggestions for some practice situations:

Speak to a stranger: For example, at a bus stop, in an elevator, or waiting in line.

Talk to your neighbors: For example, about the weather or something going on in the neighborhood.

Interact with co-workers: For example, chat with co-workers on your coffee break or in the staffroom at lunch.

Have friends over for a get-together: For example, invite a co-worker or acquaintance over, meet someone for coffee, or throw a birthday party for a relative. Make sure you interact with your guests!

Try giving a compliment: Resolve to give at least two compliments each day – preferably ones that you would not normally give.

Third: Assertiveness

Assertive communication is the honest expression of one's own needs, wants, and feelings, while respecting those of the other person. When you communicate assertively, your manner is non-threatening and non-judgmental, and you take responsibility for your own actions.

Assertive communication style brings many benefits. For example, it can help you to relate to others more genuinely, with less anxiety and resentment. It also gives you more control over your life, and reduces feelings of helplessness.

To start, ask yourself the following questions to identify what area(s) to work on:

Do I struggle to ask for what I want?

Is it hard to state my opinion?

Do I have trouble saying no?

Tips for Communicating Assertively:

Many people find it hard to ask for what they want, feeling that they don't have the right to ask, or fearing the consequences of the request. For example, you may think, "What if he says no?" or "She would think I am rude for asking".

When making a request, it can be helpful to start by saying something that shows that you understand the other person's situation. For example, "I know you probably have had a lot on your mind lately."

Next, describe the situation and how you feel about it. For example, "This presentation is due next Friday and I am feeling pretty overwhelmed, and worried that I won't be able to get it done in time.

Then, describe what you would like to see happen. Be as brief and positive as possible. For example, "I'd really like to figure out how we can share more of the work responsibilities."

Last, tell the person what would happen if your request was honored. How would you feel? Sometimes, you may want to add what you will do in return. For example, "I would make sure to help make the slides for your presentation next week."

Many people have trouble expressing their views openly. Perhaps you wait for others to give their opinion first, and will share yours only if you happen to agree. Being assertive means being willing to state your opinion, even if others haven't done so or if your opinion is different.

Being assertive means that you “own” your opinion; that is, you take responsibility for your view; for example, “My personal view is that it was unfair for her to ask that of you.” Being assertive also means being willing to consider new information, and even changing your mind. However, it does not mean changing your mind just because others think differently.

Tips for Saying No

Saying no can be difficult for you if you are usually more passive. However, if you are not able to say no to others, you are not in charge of your own life!

When saying no, remember to use assertive body language (e.g., standing straight, eye contact, speaking loudly enough that the other person can hear).

Before you speak, decide what your position is. For example, think about how you will say “no” to a request, such as, “I would like to help you out, but I already have quite a bit of work to get done this week.”

Make sure to actually wait for the question, and don’t say “yes” before the other person even makes the request.

Take care not to apologize, defend yourself, or make excuses for saying no when it is not necessary.

If saying no right away is too difficult, practice telling someone, “I need to think about it” as a first step. This will help break the cycle of always saying yes, and will give you a chance to think about what you really want to do.

Step 2: Practice your New Assertiveness skill:

First, think of a couple of past scenarios when you avoided giving your opinion or preference, saying no, or asking for what you wanted. How could you have handled the situation differently? What would be an assertive way to communicate in those situations?

Practice saying your assertive statement out loud to yourself, to get used to it. For example, “Actually, I thought the movie dragged on a bit”, “Unfortunately, I can’t help you out next weekend”, or “I’d like the dishes done before nine o’clock”.

Next, think of a situation that is coming up in the next week in which you could use your assertiveness skills. Begin with a scenario that is easier, for example, giving your opinion or saying no to more familiar people, and then try it in more difficult situations.

Try it out – how did it go? Notice how the other person reacted. Would you do something differently next time? Remember: assertiveness is like any new skill, and requires time and practice. Don’t be too hard on yourself if you are feeling nervous, or not getting it quite right. Reward yourself when you do speak up.

Appendix D



Research, Innovation and Academic
Engagement Ethical Approval Panel

Research Centres Support Team
G0.3 Joule House
University of Salford
M5 4WT

T +44(0)161 295 2280

www.salford.ac.uk/

17 April 2015

Dear Atallah,

RE: ETHICS APPLICATION–HSCR15/10 – ‘The effects of a burnout prevention program on mental health nurses in Saudi Arabia.’

Based on the information you provided I am pleased to inform you that application HSCR15/10 has been approved.

If there are any changes to the project and/or its methodology, then please inform the Panel as soon as possible by contacting Health-ResearchEthics@salford.ac.uk

Yours sincerely,

S. Ainscough

Steve Ainscough PGCE, MA, PhD

Health Research Ethics Support Assistant | Research Centres Support Team
Research and Enterprise

G03, Joule House, Acton Square, University of Salford, Salford, M5 4WT

e: Health-ResearchEthics@salford.ac.uk

w: <http://www.salford.ac.uk/ethics>

Appendix E

Kingdom of Saudi Arabia
Ministry of Health
General Directorate of Health
Affairs in the northern border Region



المملكة العربية السعودية
وزارة الصحة
المديرية العامة للشؤون الصحية
بمنطقة الحدود الشمالية

الموَقَر

سعادة مشرف عمادة كلية العلوم التطبيقية بشقراء

السلام عليكم ورحمة الله وبركاته

إشارة إلى خطاب سعادتكم رقم ٥٣/١٣٢٨٢ وتاريخ ١٤٣٦/٤/١٦ هـ نفيد سعادتكم بأنه لا مانع لدينا من قيام الأستاذ عطاءالله خلف العنزي المتخصص في تـمريض الصحة النفسية بجمع البيانات وتحليلها من منسوبينا في المجمع في نفس التخصص وقيامه بورشة عمل للعاملين لدينا حتى تحصل الفائدة في كيفية تعامل الموظفين مع المرضى .

هذا وتقبلوا أطيـب تحياتي ،،،

بإشرف

مدير مجمع الأمل للصحة النفسية

١٤٣٦
مزعـل بن حمـد العنـزي
٢٠

الرقم : ٤٤٩ التاريخ : ١٤٣٦ / ٤ / ٢٠ المشفوعات :

(٩٠٠/٢٧٥)

نطاق صحة الحدود الشمالية-عمر

Appendix F

HELPING ME TO HELP YOU: A study measuring the effectiveness of a burnout prevention programme

Do you sometimes feel working in mental health be stressful?



Reducing burnout among mental health nurses in Saudi Arabia

For the past 40 years, the importance of assessing, preventing, and over-coming burnout has been acknowledged (Freudenberger1970). Burnout is prevalent amongst nurses, and particularly among those working in mental health. There is a plethora of literature identifying the signs and symptoms of burnout, but with regard to decreasing or preventing burnout research is limited.

If you are working in mental health and would like to know more about the study, please contact the researcher:

Mr Atallah Alenezi, PhD student

University of Salford, M6 6PU.

E-mail (a.alenezi1@edu.salford.ac.uk).

(Version 1, 06/2/2015)

Study Title: The effect of burnout prevention program on burnout reduction among mental health nurses in Saudi Arabia.

Invitation

I would like to invite you to take part in the above study which is focusing on preventing burnout among nurses working in the field of mental health.

Purpose of the study

The purpose of the study is to evaluate the effectiveness of an educational program designed to decrease the level of burnout among mental health nurses in Saudi Arabia.

Why I have been invited?

You have been invited to take part in the study because you are a nurse currently working in a mental health setting.

Do I have to take part?

Participation in the study is voluntary, and as a participant you have the right to withdraw at any time, without giving any explanation of your decision to withdraw or it affecting your career.

What will happen to me if I take part?

If you decide to take part you will be asked to sign a consent form and then assigned to either an intervention or a control group. If assigned to the intervention group you will be asked to attend a 2 day workshop on preventing burnout. Both groups will be asked to complete a questionnaire on 4 occasions; on initial contact with the researcher, and then at 1, 3 and 6 month intervals. On completion of all the questionnaires, those who were in the control group will have opportunity to attend the burnout prevention workshop.

The questionnaire I will use is the Maslach Burnout Inventory-MBI which is a 22-item scale designed to measure three dimensions of burnout: emotional exhaustion-EE (9 items), depersonalisation-DP (5 items), and personal accomplishment-PA (8 items). In addition to the questionnaire I will also ask for demographic data, for example age, years of experience working in mental health, ethnicity, etc.

All your personal data will be kept confidential and will be treated with respect. Anonymity will be assured by assigning a unique number to your data and only the principle researcher will have access to names and corresponding numbers.

What are possible disadvantages and risk of taking part?

There are no disadvantages or any risk to you if you take part in this study

What are the possible benefits of taking part?

By taking part in the study you might learn new strategies that are useful in preventing or reducing burnout.

You will also be helping to establish the effectiveness of the programme which, if appropriate could be used more widely to help other professionals prevent or reduce burnout.

Will my taking part in the study be kept confidential?

Data collected in the study will be treated in accordance with the University of Salford data handling policy, and will adhere to the UK Data Protection Act (1998). As stated above, all personal data will be kept confidential and demographic data and questionnaires will be anonymised.

What will happen to the results of the research study?

The results of the study will be used anonymously in the thesis and in conference presentation and professional publications. From the results recommendations will be made as to the use of the burnout prevention programme for other groups of professionals including nurses.

What if there is a problem and I wish to complain

In the first instance you can contact my supervisor:

Dr Sue McAndrew Reader [Mental Health] | School of Nursing, Midwifery, Social Work & Social Sciences

Room 1.39 Mary Seacole Building, University of Salford, Salford, M6 6PU

t: +44 (0) 161 295 2778 | s.mcandrew@salford.ac.uk

If you are still not satisfied you can contact:

Anish Kurien Research and Innovation Manager | College of Health and Social Care

AD101, Allerton Building, University of Salford, Salford, M6 6PU

t: +44 (0) 161 295 5276 | e: a.kurien@salford.ac.uk

<http://www.salford.ac.uk/chsc>

If you would like to discuss any of the above further please contact:

Contact: Atallah Alenezi Tel: 07455707660

Address: 165 Bronte Court, Rosehill Close, Salford M65JX

E-mail: atta99@hotmail.com Meanwhile the researcher is in Saudi Arabia can be contacted at +966555182868

Thank you for taking the time to read this participant information sheet.

(Version 1, 06.02.15)

Appendix H



Participant Invitation letter

Project Title: The effects of a burnout prevention program on mental health nurses in Saudi Arabia

My name is Atallah Alenezi and I am a PhD Student at the School of Nursing, Midwifery, Social Work & Social Sciences at the University of Salford, UK.

I am conducting a research project to evaluate the effectiveness of an educational program, designed to decrease the level of burnout among nurses in Saudi Arabia. I am especially interested in nurses who are working in mental health as some of the research evidence suggests that they are more vulnerable to burnout than other groups of nurses.]

As you are a nurse working in mental health, I would like to invite you to participate in this research project. If you are interested in the study please contact me and I will be able to give you more information about the project and what you would be required to do as a participant.

If you would like to participate in this research please contact me on:

Phone number -0555182868- Or email me at : a.alenezi1@edu.salford.ac.uk

Thank you

Atallah alenezi

PhD student , University of Salford

(version 1, 06.02.15)

Appendix I



Participant Consent Form

Title of Project: The effect of burnout prevention program on mental health nurses in Saudi Arabia

RGEC Ref No:

Name of Researcher: Atallah Alenezi

	Yes	No
I confirm that I have read and understood the information sheet for the above study (version x- date) and what my contribution will be.		
I have been given the opportunity to ask questions (face to face, via telephone and e-mail) about the study		
I understand that my participation is voluntary and that I can withdraw from the research at any time without giving any reason and my data will not be used		
I agree to take part in the above study		
I understand that my anonymous data will be presented in the researcher's thesis, in professional publications and for conference presentations		
I understand that my personal details and my ID will be kept confidential		

Name of Participant:.....

Signature.....

Date.....

Name of researcher: Atallah Alenezi (atta99@hotmail.com) Signature:.....

Date:.....

(version 1, 06.02.15)

Appendix J

Maslach Burnout Inventory

How often		0	1	2	3	4	5	6
No.	Statement	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	Every day
1	I 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 recipients feel about things.							
5	I feel I treat some recipients 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 recipients.							
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 toward 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 recipients.							
16	Working with people directly puts too much stress on me.							
17	I can easily create a relaxed atmosphere with my recipients.							
18	I feel exhilarated after working closely with my recipients.							
19	I have accomplished many worthwhile things in this job.							
20	I feel like I'm at the end of my rope.							
21	In my work, I deal with emotional problems very calmly.							
22	I feel recipients blame me for some of their problems.							

Appendix K

Demographic data:

Age:)

Sex : Male (), Female ()

Marital status: Single(), Married (), widower (), divorced ()

Monthly income:

Degree : Assistant / Associate() Diploma() Bachelor() Master or more()

Years of nursing experience () years

Years of Experience in the psychiatric hospital () years

type of shift-work: A (), B (), C (), Rotated ()

Workplace or section: Acute () Chronic () Mixed () addiction () others

The average number of patients that you have at work: () patients

Job Title: Nurse () charge nurse () Clinical educator()

Have you attend any specialized course in mental health nursing : Yes () No ()

Do you have the plan to leave the hospital or psychiatric centre: Yes () No ()

(Version 1, 06/2/2015)

Appendix L

Cronbach's alpha	Internal consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Appendix M

Non Mental Health Nurses

Author(s)	Country of Study	Number/Type of Participant(s)	% with high EE score	% with high DP score	% with low PA score
Kiekkas et al (2010)	Greece	60 Orthopaedic nurses	38.3	35.0	53.3
Ostacoli et al (2010)	Italy	92 Oncology Nurses (N=59 Hospital units, N=33 Hospices)	37.1	27.8	48.1
Quattrin et al (2006)	Italy	100 Oncology Ward Nurses	35	17	89
Poghosyan et al (2010)	Canada	53,846 Nurses from Six Countries	22.5	6.2	37.4
Kitze and Rodrigues (2008)	Sao Paulo, Brazil	21 Oncology Nurses	28.6	28.6	19.1
Silvia et al (2005)	Mexico	236 Nurses	40	32	-
Tuesca-Molina et al (2006)	Colombia	103 Nurses	15.5	16.5	9.7
Girgis et al (2009)	Australia	740 Oncology Staff	32.8	9.61	56
Poghosyan et al (2010)	New Zealand	53,846 nurses	22.2	6.0	38.2

Abushaikha and Sacca-Hazboun (2009)	Palestine	152	38.8	72.4	39.5
Benevides et al (2007)	Brazil	87	26.4	17.2	10.2
Lin et al (2009)	Beijing, China	249	22.75	4.17	33.90
McAuliffe et al (2009)	Malawi	153	31	22	27
Kalemoglu & Keskin (2002)	Turkey	44	45.3	32.0	28.1
Moreira et al (2009)	Brazil	151	17	7.9	36.6

Mental Health Nurses

Author(s)	Country of Study	Number of Participants	% with high EE score	% with high DP	% with low PA
Edwards et al (2006)	Wales	817	36	12	10
Angermeyer et al (2006)	Germany	133	22.7	28.9	18.8
Happell et al (2003)	Australia	129	35.8	24.3	23
Holmqvist et al (2006)	Sweden	510	35	35	17
Hyrkäs, K. (2005)	Finland	344	29.1	61.4	66.2
Jenkins & Elliott (2004)	UK	104	51.6	37.6	12
Karanikola, & Papathanasos (2013)	Cyprus	226	10	32	33
Kilfedder et al (2001)	UK	510	41.9	16.4	25.6
McTiernanm & McDonald (2015)	Dublin, Ireland	69	23.3	13.2	40.3

Piko, B. F. (2006)	Hungary	450	24.7	9.4	27.4
Prosser et al (1996)	UK	121	22.9	7.5	33.5
Volpe, et al. (2014)	Italy	70	26.9	10.9	39.6
Shaher H. Hamaideh (2011)	Jordan	181	32.7	27.7	16.8
Lu'is S'a, (2009)	Portugal	107	32.19	17.9	34.9
Pinikahana & Happel (2004)	Victoria, Australia	220	16	6	37
Ndetei et al (2008)	Kenya	243	38	47.8	38.6
Ashtari et al (2009)	Iran	100	42.5	65.5	21.0
<u>Haitham & Jahrami</u> (2009)	Bahrain	261	22.9	7.5	33.5
Catherine J. & Kilfedder (2001)	Scottish	510	41.9	16.4	25.6
Levert et al, (2000)	South Africa	94	29.9	9.63	19.16

Yousefy & Ghassemi (2006)	Isfahan, Iran	55	21.07	4.38	15.87
Ewers et al. (2002)	UK	33	16	6	34
Pompili et al. (2006)	Italian	120	22	10	37
Ogresta, et al. (2008)	<u>Vienna</u>	174	24.5	16.6	21.8
Sherring and Knight (2009)	UK	166	41	21.7	-

Author(s)	Country of Study	Number of Participants	% with high Burnout	% with moderate Burnout	% with low Burnout
Yunus et al (2009)	Malaysia	291	40	-	-
Vahey et al (2004)	United States	820	40	-	-
Faller et al (2011)	California, USA	976	19.8	-	-
Erickson and Grove (2007)	United States	843	38.4	-	-
Moreira et al (2009)	Brazil	151	35.7	-	-
Jodas and Haddad (2009)	Brazil	61	54.1	54.1	37.7
Palmer-Morales et al (2007)	Mexico	368	6.79	-	-
Tapia-Hernandez et al (2009)	Mexico	106	8.5	19.8	63.2
Verdon et al (2008)	Switzerland	107	28	37	35
Estiri et al (2016)	Iranian	384	27.5	13	21.7
Grau et al (2007)	Spain	530	14.9	-	-
KanaiPak (2008)	Japan	5956	60	-	-

Kanste O, Kyngas H and Nikkila J (2007)	United States	601	43	-	-
Onder & Basim (2008)	Turkey	248	14.5	34.7	50.8
Aiken et al (2002)	Canada	10184	43.2	-	-