EXPLORING THE PSYCHOSOCIAL EFFECTS OF THE CORONAVIRUS 2019 (Covid-19) PANDEMIC ON FOREIGN NATIONAL CRITICAL CARE NURSES EMPLOYED IN SAUDI ARABIA

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Declaration

This is to certify that the work is entirely my own and not of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

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Abstract

Background

Globally, the Covid-19 pandemic has confronted Critical Care nurses with an even greater, unprecedented challenge and to a great extent, exposed them to many risk factors. This has a profound psychosocial and psychological impact on their mental health and their well-being (El-Hage *et al.* 2020: 73). The same study notes that, foreign national Critical Care nurses have to deal with numerous end-of-life decisions, shortage of beds and inadequate supplies such as, shortage of Personal Protective Equipment (PPEs) and the fear of getting infected or infecting others. In Saudi Arabia, the healthcare nursing workforce is comprised of both Saudi nationals and foreign nationals who are employed as contract workers. The greater proportion of the Critical Care Unit in Saudi Arabia comprises foreign nationals (Almalki *et al.* 2011a: 304). Although the initial Covid-19 outbreak was under control, there was still risk of viral transmission through the population and the disease continued to end in fatalities (Alshammari *et al.* 2020: 898). The purpose of this study was to use in-depth interviews to understand the psychological needs of foreign national Critical Care nurses working in extraordinary epidemic situations, and to analyse the main content of their psychological and psychosocial needs through the lens of the ERG theory and to provide a perspective for interventions to alleviate the psychosocial and the psychological stress of foreign national Critical Care nurses at the front-line.

Aim of the study

The aim of the study was to explore the psychosocial effects of the Covid-19 pandemic on Saudi Arabian foreign national Critical Care nurses.

Methodology

In the proposed study, a qualitative, exploratory design was followed to explore the psychosocial effects on foreign national Critical Care nurses who nursed Covid-19

patients in the Critical Care Unit. A qualitative explorative phenomenological design was particularly relevant to this study as this approach allowed for engagement and interaction with the foreign national Critical Care nurses through interviews whilst striving for subjectivity. The phenomenological method focuses on the experiences and feelings of participants to find shared patterns rather than individual characteristics of the research subjects.

Findings

The findings of the study were aligned to Alderfer's ERG theory and provided evidence that foreign national Critical Care nurses experienced psychosocial factors whilst caring for Covid-19 critically ill patients. Critical Care nurses experienced great stress when they were fighting against Covid-19 with their own needs for health, safety, interpersonal relationships and related knowledge. The findings from the study yielded the following three core needs: namely a need for survival; a need for relationships; and a need for growth and development. Therefore, under the direction of the leaders' and executive management, the provision of prompt and relevant training for the prevention and control of Covid-19 would help reduce psychological panic and insecurity caused by inadequate knowledge.

Key words: Covid-19, Critical Care Unit, psychosocial, well-being, Saudi Arabia, Critical Care nurses, pandemic

Dedication

This study is dedicated to my late parents, Mr and Mrs Naidoo, who I dearly miss and will always love and remember forever. They would have been extremely proud of my efforts and achievement as they always wanted their children to pursue a career successfully. I also dedicate this study to all our dedicated Critical Care nurses for their commitment and dedication to our patients during the Covid-19 pandemic within the hospital Saudi Arabia. Finally, I dedicate this study to my two loving children, Tiffany and Darryn, who I adore very much and thank you for being my pillar of strength during our life challenges.

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Glossary of terms

Coronavirus disease 2019 (Covid-19)

Corona virus disease 2019 (Covid-19) is an infectious disease caused by the SARS-CoV-2 virus. It is a mild to severe respiratory illness that is caused by a corona virus (*Severe acute respiratory syndrome corona virus 2* of the genus *Betacoronavirus*). It is transmitted chiefly by contact with infectious material (such as respiratory droplets) or with objects or surfaces contaminated by the causative virus, and is characterised especially by fever, cough and shortness of breath and may progress to pneumonia and respiratory failure (WHO 2020a).

Critical Care Nurses

Critical Care nursing is the field of nursing with a focus on the utmost care of the critically ill or unstable patients following extensive injury, surgery or life threatening diseases (AACCN 2020).

Psychosocial

For a concept to be psychosocial means, it relates to one's psychological development in, and interaction with, a social environment. The individual need not be fully aware of this relationship with their environment (WHO 2020b).

Psychological

Psychological pertains to the mind or to mental phenomena as the subject matter of psychology dealing with, or affecting the mind, especially as a function of awareness, feeling, or motivation: psychological play; psychological effect (WHO 2020b).

Critical Care Unit

Critical care is for hospital patients with serious health problems who need intensive medical care and monitoring. Patients in intensive care units, also called ICUs, are cared for by a team of providers that may include specially trained nurses (Society of Critical Care Medicine (SCCM): 2020).

Well-being

Well-being is a broad concept that includes people's satisfaction with their life, their personal development and social functioning (Cho *et al*. 2021:63).

Workload

Cho *et al*. (2016: 535) define workload as the relationship between the work demands that are placed on an employee, given a specified amount of time and resources.

Acronyms

Acronym	Full word/sentence
ARDS	Adult Respiratory Distress Syndrome
CDC	Centre for Disease Control
ERG	Existence relatedness growth
HCPS	Health Care professionals
HCW	Health care worker
ICU	Intensive Care Unit
KSA	Kingdom of Saudi Arabia
MOH	Ministry of Health
NCMH	National Centre for Mental Health
PPE	Personal Protective Equipment
PSR	Psychosocial Risks
PTSD	Post Traumatic Post-Traumatic Stress disorder
SARS	Severe Acute Respiratory Syndrome
WHO	World Health Organisation

CHAPTER ONE
ORIENTATION TO THE STUDY

1.1 INTRODUCTION

Globally, the Covid-19 pandemic has confronted Critical Care nurses with an even greater, unprecedented challenge and to a greater extent, exposed them to many risk factors. This has a profound psychosocial and psychological impact on their mental health and their well-being (El-Hage *et al.* 2020: 73). The same study notes that foreign national Critical Care nurses have to deal with numerous end-of-life decisions including shortage of beds and inadequate supplies such as Personal Protective Equipment (PPEs) coupled with the fear of being infected or infecting others. In addition, there are not enough properly trained or skilled foreign national Critical Care nurses, leading to increased working hours, additional shifts and increase in the nurse-patient ratios– ranging from 1:2 and at times 1:3 patients per nurse. These factors can contribute to errors and jeopardise the safety and quality of care in the Critical Care Unit (CCU). Saudi Arabia's healthcare system consists of a large, well-networked public system with medical cities centred in urban areas, with more distant regions served by primary healthcare centres (Almalki, Fitzgerald and Clark 2011b: 304). All healthcare services are offered to citizens by the government and to non-citizens through their employers.

Nursing is one of the professions most exposed to occupational stress due to exposure to psychosocial factors, such as high workload, fast work pace and lack of autonomy (Bulbuloglu *et al.* 2020:6). Psychosocial factors at work (PFW) are described by international agencies as one of the main factors that trigger stress and psychological illness among workers (International Labour Organisation 2020: 8). Nurses, who played an important role during the Covid-19 outbreak, were exposed to a range of psychosocial stressors due to unforeseen risks. The extensive literature on this subject states that the continuously increasing numbers of Covid-19 patients, the increased workload, the limited availability of personal protective equipment, positive cases and news of death in the media as well as the lack of specific

treatment medications and support, increased the mental health burdens of healthcare workers (Lai *et al*. 2020: 3976). Studies conducted on previous outbreak of diseases stated that mental health problems might emerge as a result of the acute effect of an outbreak (Bai *et al*. 2004: 1055; Maunder *et al.* 2003: 1245). The residual negative psychological impact may last for years following the pandemic and healthcare providers, being on the frontline fighting the Covid-19 pandemic, are therefore, at a greater risk of developing psychological and psychosocial complications. Healthcare workers may not only be worried about contracting the infection themselves or passing it on to their loved ones, but their concerns about stigmatisation and quarantine consequences, as well as an increase in the workload, often add to their stressors. Due to the sudden outbreak of the pandemic, nurses who are predominantly foreign nationals from a Saudi Arabian hospital have had to enter the negative pressure wards and dedicated Covid-19 units with confirmed infected patients only after undergoing brief training on treating Covid-19 patients. Nurses who entered the negative pressure units worked for a period of six months before being transferred to their initial work units.

Covid-19 is a new disease and the medical system and culture of different countries varies, warranting further research on the psychosocial experience of frontline nurses fighting against Covid-19. Currently, published studies have highlighted the disease prevalence with clinical characteristics, diagnosis, and treatment (Choi and Skrine 2020:1486). Some reports have paid attention to the severity of psychological problems in medical personnel and the urgency of providing psychological care (Chew *et al.* 2020: 559).To date, there has been minimal qualitative studies on the psychosocial experiences of foreign national Critical Care nurses specific to caring for Covid-19 positive patients in Saudi Arabia. Therefore, this study aimed to explore the subjective experiences of foreign national Critical Care nurses caring for Covid-19 patients through semi-structured interviews and to analyse the data using a phenomenological lens whilst providing fundamental data of the psychosocial experiences of Critical Care nurses within a Saudi Arabian hospital context.

1.2 BACKGROUND

In Saudi Arabia, the healthcare nursing workforce is comprised of both Saudi nationals and foreign nationals who are employed as contract workers. The greater proportion of the Critical Care Unit nurses in Saudi Arabia is constituted of foreign nationals (Almalki, Fitzgerald and Clark 2011a: 784). On 2 March 2020, Saudi Arabia saw its first case of Covid-19. Saudi Arabia's health authority began implementing containment policies and ordered that all individuals in Saudi Arabia would receive Covid-19 treatment free of charge. However, cases increased rapidly and within a few months, community transmission was brought under control and stabilised and containment policies continued. Although the initial outbreak was under control, there was still risk of viral transmission through the population, and the disease continued to have fatalities (Alshammari, Altebainaw and Alenzi 2020: 898). In fighting Covid-19, nurses became frontline healthcare workers and, as such, had great responsibilities providing the much-needed specialised patient-care in the critical care or intensive care units (ICU). Working conditions and emotional factors, therefore influenced the quality of the care provided.

The Military Hospital in the Southern Region of Saudi Arabia is the designated hospital for the treatment of patients with Covid-19. A total of 30 nurses are allocated to these Covid-19 units with a nurse-patient ratio of 1:4 for general units and 1:1 for Critical Care Units. The allocation is according to the admissions per 24 hours and according to patient acuity. The majority of the nurses are foreign nationals and have been cross-trained to nurse patients infected with Covid-19. Due to the critical shortage of experienced skilled nurses especially in the Covid-19 units, foreign national nurses from other areas were becoming infected and needed to be quarantined. Foreign national nurses from other areas of the hospital had to be cross-trained to manage non-ventilated patients during the Covid-19 crisis with a bed occupancy of 100%. Management of Covid-19 patients in the Critical Care Units places a high demand on foreign national nurses because of the severe complications of patients, such as Adult Respiratory Distress Syndrome (ARDS) and eventually multi organ failure (Richardson *et al*. 2020: 2052). Reports indicated that a

moderate to high level of burnout, emotional fatigue, together with low job satisfaction impacted on the psychosocial well-being of foreign national Critical Care nurses (Ma *et al.* 2020: 61). Psychosocial factors underscore the close connection between psychological aspects of a person's experiences and include one's thoughts, emotions, and behaviour and are related to wider social experiences such as relationships, traditions and culture. However, many psychosocial problems may not require clinical treatment but are rooted in stigmatisation, apathy, feelings of hopelessness and inability to function in normal social roles (Richardson *et al.* 2020: 2053). A more recent study of anxiety in healthcare workers in Saudi Arabia, found that foreign national nurses were experiencing higher anxiety levels than other professions and as in China, Saudi Arabia needed to plan for the situation of burnout or emotional fatigue becoming chronic in this workforce leading to psychosocial distress (Alenazi *et al.* 2020: 1645).Therefore, strategies and interventions aligned with Alderfer's Theory of Existence was used to illustrate the constructs of relatedness and growth which assisted foreign national Critical Care nurses focus on the actual working conditions during a shift, whilst the emotional support aided them to cope with the effects of the Covid-19 pandemic. For efficient management of psychosocial factors in healthcare organisations, leaders need to listen to health professionals about work demands and assist in team planning and redistribution of workloads.

Psychosocial factors are understood to be the interplay between work, workers, the environment, satisfaction with the work performed and organisational conditions. In addition, these factors may also involve the capacity of the worker, their needs, culture and personal situations. These factors can influence the health either positively or negatively, the welfare and performance of the worker. Nurses, as the main force in the battle against the global pandemic and also bear monumental responsibility as frontline workers. The researcher in this study aimed to explore the psychosocial experiences of foreign national Critical Care nurses working in the designated Covid-19 units caring for Covid-19 infected patients in a Saudi Arabian Military Hospital during the global pandemic.

1.3 PROBLEM STATEMENT

Pandemics, such as Covid-19, can be mentally demanding due to the unpredictability of the situation, the uncertainty of how to control the disease, and the seriousness of the risk. These, along with misinformation and exaggerated media coverage can put immense mental pressure on individuals and societies (World Health Organisation (WHO, 2020).The first wave of the pandemic saw the front-line foreign national nurses experiencing huge workloads, long-term fatigue, infection threats and depression over the death of patients whom they cared for. They also faced anxiety or even misunderstandings with patients and their families. Additionally, they agonised about their own families and vice versa, with them being far away from home. All these factors resulted in high psychosocial pressure among foreign national Critical Care nurses within the Saudi Arabian hospital.

This crisis has further caused immense stress on governments, institutions and the global population. Delirium, psychosis, severe anxiety and depression have been well-observed during this pandemic (WHO, 2020). The Centres for Disease Control and Prevention (CDC) reported that pandemics are marked by disrupted sleep cycles, concentration difficulty, fear and excessive worry about one's own life and their loved ones, and increased substance abuse (CDC, 2020). Thus far, the literature search has revealed many articles relevant to the Covid-19 pandemic and related strategies to contain its spread. However, the psychosocial effects of and experiences with Covid-19 of foreign national Critical Care nurses remain an under-researched area in Saudi Arabia, prompting the need for the present topic of inquiry.

1.4 AIM OF THE STUDY

The aim of the study was to explore the psychosocial effects of the Covid-19 pandemic on Saudi Arabian foreign national Critical Care nurses.

1.5 OBJECTIVES OF THE STUDY

The following objectives are aligned with Alderfer's Existence, Relatedness, and Growth (ERG) theory, which was the theoretical framework chosen to guide this study as described below:

- To identify factors that influence foreign national Critical Care nurses' motivation and their performance that is related to their work in the Critical Care Units whilst caring for Covid-19 patients.
- To establish the psychosocial effects on the human needs in an organisational setting amongst the foreign national Critical Care nurses during the Covid-19 pandemic.
- To determine the various psychosocial factors influencing the Covid-19 working environment and the professional growth and development opportunities of the foreign national Critical Care nurses.
- To determine the behavioural factors influencing foreign national Critical Care nurses, such as job turnover and transfer from one location to another due to shortage of Critical Care nurses during the Covid-19 pandemic.

1.6 RESEARCH QUESTIONS

This study aimed to answer two (2) specific research questions as follows*:*

- What are the various psychosocial effects on foreign national Critical Care nurses whilst caring for Covid-19 patients in a Saudi Arabian hospital?
- How has the Covid-19 pandemic influenced the foreign national Critical Care nurses in relation to environmental and behavioural factors in the Critical Care Units?

1.7 SIGNIFICANCE OF THE STUDY

Psychological factors are considered an essential part of the health and quality of life of an individual. The WHO (2020) has stressed the importance of a person's physical, psychological, social and spiritual well-being. Unfortunately, many front-line nurses have sacrificed their own well-being and have been infected or lost their lives,

which has caused increasing psychological stress among nurses. During the pandemic outbreak, both positive and negative emotions of the foreign national nurses were interweaved and coexisted in nurses' minds. In the early stages, negative emotions were dominant but gradually, positive emotions surfaced. This study provides significant evidence to highlight the psychosocial well-being of foreign national nurses caring for Covid-19 patients during this global pandemic. The objective of this study fundamentally involves the analysis of psychosocial risks that affect foreign national Critical Care nurses, their tasks and the organisation where they are employed. In the area of nursing, studies on stress and burnout have proliferated in recent years according to França and Ferrari (2012: 743), leaving behind other psychosocial variables, such as mental workload Sun *et al.* (2020:148), which is what has acted as a catalyst for the development of this study. This study aimed to understand through semi-structured interviews, the subjective experiences of foreign national Critical Care nurses participating in the care of Covid-19 patients. Data was analysed using phenomenological methods that provided fundamental data on the psychosocial experiences of foreign national Critical Care nurses who were nursing Covid-19 confirmed patients. The study also provided evidence for the government departments, policy-makers and nurse leaders on the situation and suggested strategies to improve the psychosocial health and well-being of foreign national Critical Care nurses.

1.8 STUDY DESIGN

Research design is a blueprint for the conduct of a study that maximises control over factors that can interfere with the study's desired outcome (Burns and Grove 2020: 809). The methodological design adopted for this study was underpinned by a qualitative research methodology. Creswell (2014: 220) describes research design as types of inquiries within research approaches that provide specific direction for the procedures to be followed. A research design is an overall plan for addressing a research question, including specifications for enhancing the study's integrity (Polit and Beck 2017: 784). In this study, a qualitative, exploratory design was followed to explore the psychosocial effects of foreign national Critical Care nurses caring for Covid-19 patients in the Critical Care Unit. A qualitative explorative

phenomenological design was particularly relevant to this study as this approach allowed engagement and interaction with the foreign national Critical Care nurses through interviews whilst striving for subjectivity. Phenomenological methods focus on the experiences and feelings of participants and find shared patterns rather than individual characteristics in the research subjects.

This scientific approach guarantees the authenticity of the collected experience of participants in adhering to scientific standards. Any researcher undertaking a study of this nature must be open to and truly want to know the answer to the question, not merely to confirm their preconceived assumptions about the phenomenon, but to allow the phenomenon to reveal itself as it is. Gibson and Hanes (2003: 186) argue that five concepts are critical to conducting phenomenological research and in uncovering the essences of lived experiences namely; openness, encounter, immediacy, uniqueness, and meaning. In a study that debated the use of phenomenology in research, Kleiman (2004: 9) also revealed that by using phenomenological research, the researcher seeks to find the essence of the experience of a phenomenon. Therefore, the goal of the phenomenological researcher in this study was to uncover the essence or underlying meaning of these shared experiences of the psychosocial effects of Covid-19 on foreign national Critical Care nurses in a Saudi Arabian Hospital.

1.9 STRUCTURE OF THE THESIS

CHAPTER 1: BACKGROUND AND THE OVERVIEW OF THE STUDY

This chapter provided an overview of the study. It addressed the problem statement, key objectives, significance of the study, and provided a brief overview of the related literature as well as the methodological approach of the study.

CHAPTER 2: LITERATURE REVIEW

This chapter provided the literature review on psychosocial factors and its influence on foreign national Critical Care nurses. The sources that are relevant to the research topic is discussed in detail in chapter 2 of the study.

CHAPTER 3: THEORETICAL FRAMEWORK

This chapter gave an overview of the theoretical underpinnings that provided a framework for this study. The conceptualisation of how the various psychosocial factors relate to foreign national Critical Care nurses experiences during the Covid-19 pandemic were explored and discussed within the context of nurses' perceptions.

CHAPTER 4: RESEARCH METHODOLOGY AND DESIGN

This chapter discusses the research methodology and design and outlines the strategy used to address the research questions.

CHAPTER 5: PRESENTATION OF RESULTS

This chapter presented the results of the qualitative analysis and the study findings using themes extracted from the data revealed by the interviews related to psychosocial experiences by the foreign national Critical Care nurses.

CHAPTER 6: DISCUSSIONS AND FINDINGS

This chapter provided a discussion on the literature sources that supported or refuted the findings of the study.

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND RECOMENDATION:

This chapter presented the conclusion, limitations and recommendations of the study.

1.10 SUMMARY OF THE CHAPTER

An overview of the study was presented in this chapter and the objectives of the study together with the problem statement and rationale were outlined. In the next chapter, the relevant literature sources on Covid-19 from global perspective will be reviewed. The various psychosocial factors within various models and its influence on foreign national Critical Care Nurses caring for Covid-19 patients from global and Saudi Arabian viewpoints will also be detailed.

CHAPTER TWO
LITERATURE REVIEW

2.1 INTRODUCTION

Aveyard (2014: 2) defines literature review as an interpretation and study of literature, which follows a topic of enquiry and attempts to identify and track all the available literature on the subject by following a systematic and comprehensive methodology. Literature reviews are a process that involves researching, reading, understanding and using the findings from the various literature sources to conclude a topic. A literature review determines what is known and not known about a subject, concept or problem (Burns and Grove 2011: 509). The working environment can influence the mental and physical health of the nurses. The workplace has a significant impact on the foreign national nurse's health and well-being (Gabriel and Liimatainen 2000: 402), the workers and organisations (Wang *et al*.2020:58). Psychosocial risk factors and work-related stress still need to be addressed and made more understandable in critical care environments (Britt *et al*.2021:120). Health care psychosocial risk factors have unique aspects, and they are connected with patient safety and quality of care and well-being of employees. Previous studies show that those employees, who suffer from cognitive, depressive or emotional symptoms during the pandemic, could not provide the best, safe and quality services to the patients (Gonzalez *et al.* 2020:172).

A poor psychosocial work environment can cause anxiety, burnout, depression, and sleeping problems. Quantitative and emotional demands, work pace, role conflicts and relationships are negatively related to the workers' mental health. Work-family role conflicts and job insecurity may significantly impact employees' work stress (Freimann and Merisalu 2015: 447). Nursing as a profession has long been considered one of the most stressful professions (Lambert and Lambert 2001: 161). The main factors contributing to foreign national nurses' stressors include long hours, heavy workload, lack of influence within the workplace, insufficient resources, role ambiguity, experiences of aggression according to Lim, Bogossian and Ahren (2010: 22), and lack of support and recognition from co-workers and the

management (Lewis, Ricard and Klijn 2018: 288). The literature review in this study aims to identify and analyse literature related to the concept of psychosocial factors experienced by foreign national nurses working in a Saudi Arabian hospital critical care environment whilst caring for Covid-19 patients.

2.2 PROCESS OF SOURCING RELEVANT LITERATURE

For the current study, a literature search was conducted using various search engines, namely Academic Search Complete, Cumulative Index to Nursing, Allied Health Literature (CINAHL) Plus with Full Text, EBSCO Host, Education Resources Information Centre (Eric) on the EBSCO Host platform, Google Scholar, Medical Literature online (Medline) with full text, South African (SA) e-publications, Science Direct, and the Ministry of Health in Saudi Arabia and World Health Organisation (WHO) websites. Different search words related to the research topic were used, namely nursing care, critical care, Covid 19, psychosocial, mental demand, well-being, behavioural influences and mental well-being. To yield maximum results when conducting the literature search, terms were used independently and combined with other keywords to broaden search parameters. The literature search was conducted at different stages of the research process. The advantage of the search process was to organise the literature review into sections that present themes or identify trends, including relevant theory to synthesise and evaluate it according to the guiding concept of the topic of enquiry (Adair and Vohra 2003: 15).

2.3 CONTEXTUALISING AND DEFINING PSYCHOSOCIAL FACTORS

Psychological factors include individual-level processes and meanings that influence mental states such as moods, feelings and thoughts. Sometimes, these words are combined to contextualise the psychosocial aspect of a person. This combination of psychological and social also implies that the effect of social processes is sometimes mediated through psychological understanding (Rigotti *et al.* 2020:1-6). Psychosocial factors namely, stress, hostility, depression, hopelessness, and job control seem associated with physical health, particularly heart disease (APA, 2020:422). Among the definitions found, adverse risk applies the notion of psychosocial risk at work and is related to damage and injury to the worker, which may be associated with the

premature exit from the labour market (Britt *et al*. 2021:70)). The central focus of the study is the search for psychosocial consequences of work that must be the objective of preventive interventions. In this study, prevention specifically refers to:

1. Content, organisation and management of work.
2. Relationships among workers.
3. The context of the labour market and career.
4. Individuals' perceptions of these aspects can potentially harm their mental, social and physical health whilst caring for Covid-19 critically ill patients.
5. Exposure to psychosocial hazards can affect employees' psychological, psychosocial and physical health and well-being through a stress-mediated pathway. In addition, the health and resiliency of healthcare organisations are affected by absenteeism, high turnover, lower productivity and organisational commitment (Cox, Griffith and Rial-Gonzales 2000: 69).Table 2.1 below outlines the construct definitions of psychosocial work factors.

Table 2.1: Construct Definitions of Psychosocial work factors.

Paper	Psychosocial factor at work
Amponsah-Tawiah, Jain, Leka, Hollis and Cox (2014: 28)	"... psychosocial hazards are defined by the International Labour Organisation (ILO,1986) in terms of the interactions among job content, work organisation and management, and other environmental and organisational conditions, on the one hand, and the employees' competencies and needs on the other; that prove to have a hazardous influence over employees' health through their perceptions and experience" .
Bergh, Ringstad, Leka and Zwetsloot (2014: 825)	"Those aspects of work design and the organization and management of work, and their social and environmental context, that have the potential for causing psychological, social or physical harm".
Canivet *et al*.	"... the health related mechanisms causing a person to

Paper	Psychosocial factor at work
(2016: 687)	prematurely leave the labour market".
Law, Dollard, Tuckey and Dormann (2011: 1782)	"Work stress results from prolonged exposure to workplace psychosocial hazards aspects of the work environment, work design, and organisational management which potentially cause psychological and social harm."

2.4 PSYCHOSOCIAL RISK FACTORS

Psychosocial health factors encompass the mental, emotional, social and spiritual dimensions of being mentally healthy. Psychosocial risks were further defined as the interactions among job content, work organisation and the management. Environmental factors and organisational conditions played a vital role on the one hand and employee's competencies, skills and needs, on the other. This interaction can prove to be hazardous or at risk to employees' health through their perceptions and experience. Cox, Griffiths and Rial-Gonzales (2000: 69) provide a more straightforward definition of psychosocial hazards which is related to those aspects of the work designs and the organisation and management of work tasks, and their social and environmental contexts, which may have the potential to cause psychological or physical harms.

The concepts of psychosocial factors at work are challenging to grasp and comprehend since it represents employees' perceptions and experiences and this reflects many considerations. Some of these factors can be related to the individual worker, while others relate to work conditions and their environment. Others refer to the social and economic influences outside the workplace but which have repercussions within it.

Psychosocial risks (PSR) refer to the work designs and the management of work tasks and its social and organisational contexts that have the potential to cause harm to workers (Cox *et al.* 2020:69). Exposure to the PSR can affect an employee's psychological, psychosocial and physical health through a stress-mediated pathway

and interventions. In addition, the health and resiliency of any organisation, namely absenteeism, high turnover, and organisational commitment, can be affected (Hupke et al 2020: 125). Seemingly, the sources of psychosocial risks are numerous, as illustrated in Table 2.2 which represents the taxonomy of psychosocial risks.

Table 2.2: Taxonomy of psychosocial risks

Job content	Lack of variety or short work cycles, fragmented or meaningless work, under-use of skills, high uncertainty, continuous exposure to difficult clients, patients or pupils.
Workload and work pace	Work overload or too little work, machine pacing, high levels of time pressure, continually subject to deadlines
Work schedule	Shift work, night shifts, inflexible work schedules, unpredictable hours, long or unsociable hours
Control	Low participation in decision-making such as lack of control over workload, pacing and shift working.
Environment and equipment	Inadequate equipment availability, suitability or maintenance; poor environmental conditions such as lack of space, poor lighting or excessive noise
Organisational culture and function	Poor communication, low levels of support for problem solving and personal development, poor managerial support; lack of definition of, or agreement on, organisational objectives
Interpersonal relationships at	Social or physical isolation, poor relationships with superiors, interpersonal conflict, lack of social support,

work	harassment, bullying, poor leadership style, third-party violence
Role in organisation	Role ambiguity, role conflict, and responsibility for people
Career development	Career stagnation and uncertainty, under-promotion or over-promotion, poor pay, job insecurity, low social value of work
Home-work interface	Conflicting demands of work and home, low support at home, problems relating to both partners being in the labour force

Source: Taxonomy of psychosocial risks. Adapted from Cox (1993: 117) and (Yao *et al.*2020:21).

There is marked evidence and reasonable consensus among the scientific community of the nature of psychosocial hazards (Table 2.2). New forms of work give rise to unknown risks, not all of which will yet be represented in the scientific publications (Yao *et al.* 2020:21). Health workers are exposed to various PSR at work, and infectious disease outbreaks exacerbate the risks (Barello, Palamenghi and Graffigna 2020: 113). As an occupational category, nurses are particularly exposed to PSR (Wagner *et al.* 2019: 53). Exposure to the physical hazards and the psychosocial risks in healthcare from working overtime, work overload, and time pressure (Michel and Ecarnot 2020: 345), an insufficient number of rest breaks and days away from work, leading to poor work-life balance, shift position, low wages and job insecurity and the exposure to adverse social behaviour, such as violence and harassment (Vento, Cainelli and Vallone 2020: 7).

2.5 DIMENSIONS OF PSYCHOSOCIAL FACTORS

Psychosocial well-being is a super ordinate construct that can include emotional or psychological well-being and social and collective well-being (Lai *et al.* 2020:203). The term "quality of life" is very similar to the term psychosocial well-being in that it involves emotional, social and the physical elements. This term is often used in healthcare organisations to specify how the individual's well-being may be impacted over time by a medical condition, according to Harladstad *et al.* (2019:2641), thus muddying its conceptual clarity and specificity. There have been various conceptual proposals Wang *et al.* (2020:311) and even new designs of psychological interventions. However, Chen *et al.* (2020:15) allude that psychological well-being is in the centre of mental health for healthcare providers. Positive psychology is an approach based on enhancing happiness by focusing on the positivism Moskowitz *et al.* (2020:60) and flourishing attitude which represents a paradigmatic shift away from the deficit models that began two decades ago. Considering the Covid-19 pandemic and the crisis, it can be said that the isolation, quarantine and the physical distancing protocols brought a burden and exacerbated those pre-existing mental health conditions, and caused the various daily stressors to become worse(Smith and Lim 2020:5).

The physical health effects of the virus and the psychosocial effects of the isolation protocols and processes, quarantine and physical distancing measures adopted, have seen many people face various types of fear namely the fear of death, loss of loved ones or to loss of income or their jobs. Many of the employees are struggling with the harsh economic conditions and many people had to survive without the support of their standard social networks. Reports of the impact of quarantine on the mental state document symptoms of irritability, insomnia, depression and the development of stress-related conditions (Brooks *et al.* 2020: 912). The current uncertainty of the pandemic in terms of the course of the virus can lead to triggering dysphoric moods. Those challenges also can be elaborated regarding the specific group and their vulnerabilities. By virtue of social isolation, interrupted education, economic stressors of family life, children and adolescents have been facing exacerbated psychological problems which affect their emotional and mental

development. One of the most critical work environment issues in Saudi Arabia is psychosocial risk factors that pose a significant challenge to nurses' health and quality of life in the Critical Care Units. A previous study indicated that a poor working environment can adversely affect productivity, health and employees' mental and physical well-being (Said and El Shafei 2021:8791). To improve productivity and increase efficiency in healthcare, it is imperative to explore the psychosocial needs of Critical Care nurses.

Few studies have investigated adverse psychosocial factors at work, and the impact of these factors on the quality of life of health carers in Saudi Arabia and minimal studies on Critical Care nurses experiences on psychosocial factors whilst caring for Covid-19 patients during the global pandemic. The psychosocial consequences of the Corona virus pandemic are serious for health professionals, including nurses, because of a higher level of exposure. Nurses often face enormous psychological and psychosocial pressure due to workload, long hours, and working in a high-risk environment. The psychosocial risk factors may result in work-related burnout, cognitive stress symptoms and job dissatisfaction as alluded to by (Rosa, Ferrell and Wiencek 2020: 28). The pandemic affects not only physical health but also mental health and well-being. Mental health and psychosocial consequences of the Covid-19 pandemic may be severe for health professionals because of a higher level of exposure.

2.6 GLOBAL IMPACT OF THE COVID-19 PANDEMIC ON HEALTHCARE

In the context of the global crisis caused by the Covid-19 pandemic, we know that health carers are the first line of defence to combat this disease. The current Covid-19 pandemic is an incredibly challenging time and the evolving situation impacts the health care system in many aspects, especially critical care settings worldwide. The Covid-19 pandemic has escalated into the most significant health crisis of the 21st century. According to the Covid-19 situation dashboard of the World Health Organisation (WHO), the virus has infected many people worldwide to date and has also killed many globally (WHO 2020). Epidemiological projections show that the outbreak overwhelmed even the best well-developed healthcare systems

(Fergusson *et al.* 2020: 20). Many countries have thus imposed pandemic suppression measures such as lockdowns and community quarantines to stem the progress of the pandemic (Yu and Aviso 2020: 183). Therefore, the rising number of critically ill patients is expected to surge in most countries, leading to severe shortages of intensive care unit nurses and requiring careful advanced planning (Jit *et al.* 2020: 1003).

During the current worldwide nursing shortages, nursing administrators must manage the available nursing workforce to ensure patient and nurse needs are met. Unfortunately, we face this health emergency with poor working conditions due to the shortage of bio -safety equipment, scarcity of infection control systems, the lack of recognition and reward programs and the work incentives and finally the physical and psychological abuse and discrimination by patients, which has an impact on nurses' mental health (Kang *et al* 2020: 303). Due to the Covid-19 global pandemic, healthcare systems worldwide are working under many challenging conditions. Patients, who are critically ill, require intensive care admission. In fighting Covid-19, nurses are the front-line workers and, as such, have a great responsibility for providing needed specialised patient-care in intensive care units (ICU). However, working conditions, job demands and emotional factors have an impact on the quality of the care provided. These are well-known stressors of work contexts that can be identified as psychosocial factors of work (International Labour Organisation 2020:22). Such effects could be manifested as stress, depression and anxiety due to insufficient information about the virus, the continuous care of patients with Covid-19, high workload, constant exposure to critical events such as death (Zhang *et al.* 2021: 1584), fear of being infected and infecting their families and its consequences on their health. Studies have been reported the presence of psychiatric symptoms, according to Lima *et al.* (2020: 43), in a population without mental illnesses, such as depression, anxiety, post-traumatic stress and aggravation in those who have a mental illness.

During the pandemic, healthcare professionals (HCPs) are at significant risk of adverse mental health outcomes resulting from limited clinical knowledge about the virus, long working hours, risk of infection, and insufficient provision of protective equipment, loneliness, physical fatigue, and separation from families Globally, the psychological and the psychosocial health of healthcare workers in general, and Critical Care nurses in particular, has been challenged in the Covid-19 pandemic. Several earlier studies revealed that health carers suffer from adverse psychosocial disorders, namely as anxiety and fears. Depression is noted as one of the dominant disorders and conditions and is often seen among health carers. (Huang and Zao 2020:288). Nurses must wear N95 masks and heavy protective garments, making it much harder for them to carry out procedures than under ordinary circumstances. Along with the fear of being infectious, these factors could increase the chances of nurses experiencing negative psychosocial symptoms (Lai *et al.* 2020: 3976) carried out a cross-sectional study involving 1 257 participants. They reported an elevated incidence of mental illness symptoms and disorders among healthcare workers whom cared for patients with Covid-19 in China, namely, depression (50.4%), anxiety (44.6%), insomnia (34.0%), and distress (71.5%).

They revealed that the causes of psychosocial problems and mental disorders might include feelings of susceptibility or failure of control, concerns regarding the personal health factors, and the rapid spread of the virus and the health of family members and others, modification and challenges in work procedures and processes, and continuous quarantine. The continuing escalation of the many confirmed and suspected cases of Covid-19 during the pandemic, the overwhelming workload, the reduction of personal protection equipment, and the shortage of some drugs may contribute to the negative psychological symptoms experienced by healthcare workers.

This pandemic has severe psychosocial effects on health workers, especially nurses, as they are directly linked to the working conditions. Thus, if the nurses working conditions and work environment are inadequate and not conducive, they will put their families and loved ones health at risk and, consequently, the impact on their

mental health will be exacerbated (Shanafelt *et al.* 2020:2133).It is important to acknowledge that a few studies showed evidence that training with bio- safety measures and a correct application of infection control procedures and policies and practices, as well as having adequate accessibility to personal protective equipment and the recognition of their efforts at organisational and governmental levels in the healthcare system, can generate a feeling of security and motivation to continue working (Cai *et al*. 2020: 924). The Global Impact of Covid-19 highlights the consequences, implications, risks, opportunities and critical challenges of the Covid-19 pandemic on our current world order, as illustrated in Table 2.3 below that depicts the pandemic and its several short-term and long-term impacts on human health, society, the economy, and the environment. The severe lockdowns imposed in certain countries have caused a widespread economic and humanitarian crisis. This depiction has further made it vital to draw important lessons from this pandemic to amplify future preparedness and response capacities to similar shocks within the healthcare sector. Table 2.3 below presents the key challenges and trends of the global impact of Covid-19.

Table 2.3 Key Challenges and Trends of the Global impact of Covid-19

	Health/Social	**Economic**	**Geopolitical**
1	On- site safety for employee and/or patients/clients Availability of staff and permissibility to work	Immediate shuttering of high-risk services Sufficient liquidity to trade and pay employees Ability to service customers during lockdown	International and domestic travel bans Shortages and delays in intentional supply of crisis related goods/medications
2	Requirement for remote working	Dramatically altered demand patterns and	Heightened price volatility in globally-traded

	Sustained illness and absence across global supply-chain participants Pressure on social license through crisis conditions	service priorities Pressure to right-size cost-base through rationalisation and restructuring /surge plans Urgency to develop capacity and pivot to digital channels	commodities Political intervention in supply and pricing of critical products Humanitarian demands in emerging markets
3	Demand for appreciate flexible working arrangements to attract and retain talent and skills Long-term focus on hygiene and health Impetus to continue minimizing air-travel	Altered market structures and competitive dynamics Long-term suppressions of demand in critically impacted sectors Growth in nationalisation and public partnership models for mobilisation of chronic patients	Exacerbation of poverty-driven conflict and social issues Potential bias towards domestics or regional supply chains Disruption of trade talks and negotiations

Source: Challenges and Trends on Global impact of Covid-19 (Cai *et al*. 2020: 924).

2.7 IMPACT OF COVID-19 ON SAUDI ARABIAN HEALTHCARE

In the Saudi Ministry of Health, 107 092 registered nurses work in primary, secondary, and tertiary health care settings. In contrast, only 20,891 (19%) registered nurses work in Critical Care Units (MOH Statistical Yearbook 2019). Furthermore, Critical Care nurses might face an overwhelming workload and simultaneously be challenged on multiple aspects. These challenges include huge under-staffing with surge capacity plans and limited numbers of well-qualified Critical Care nurses, protection of cross-infection risks, job stress, and work-related burnout

(Mo *et al*. 2020: 1002). Improving hospitals' ability through supporting national surge capacity plans is crucial to sustaining the safe provision of critical care (NCHF 2020: 202). The psychosocial effects of Covid-19 have also been reported in Saudi Arabia. Different distress ranges were reported among 40% of the general Saudi population due to Covid-19, as reported by Al-Hanawi *et al.* (2020: 733). Moreover, Alkhamees *et al*. (2020: 192) reported a moderate to very severe psychological and psychosocial impact among a population of 23.6% of the Saudi general public.

Previously mentioned studies found higher rates among females, young people and health practitioners (Al-Hanawi *et al*. 2020: 733). While literature established and cited the psychological impact of the pandemic on the Saudi population, evidence shows there was limited discussion of the factors influencing it. Yet, Alkhamees *et al*. (2020: 152) found that commitment to infection control preventive measures is negatively associated with stress and anxiety levels. Psychological distress is a reaction to a specific stressor that can cause timely or permanent dysfunction (Barry *et al*. 2020:227).An individual may mostly experience coping difficulties, fluctuations of emotions, and feelings of irritability (Al-Hanawi *et al.* 2020:733). The Saudi Arabian authorities noted the rise of psychological disorders and responded by distributing several health messages and guidelines to the public.

The Saudi CDC (2020: 1232) provided a preventive guide for mental and social health prevention, stress relief, fear and anxiety management during the global pandemic. The target was the general population and how to take care of children and the elderly and tips for health carers and managers of health facilities. The National Centre for Mental Health Promotion (NCMH 2020) promoted a free call counselling centre with mental health specialists for help during the pandemic as well as provided some health messages on psychological tips during the lockdown, such as how to increase resilience and to deal with loneliness and isolation especially with elderly and with particular need family members. Some hospitals educated the public about mental health, such as King Faisal Specialist Hospital and Research Centre (KFSHRC), which provided social media messages on managing stress and anxiety during the pandemic. This study explored the various psychosocial factors affecting

Critical Care nurses working in the Critical Care Units of Saudi Arabian hospitals during the Covid-19 pandemic. An understanding of this phenomenon will enable the development of protection and intervention programs to enhance mental health, especially among the distressed population under study, being the Critical Care nurses who are caring for Covid -19 patients.

2.8 PANDEMICS AND PSYCHOSOCIAL IMPACT

Emergencies and any global pandemics are commonly known to lead to large scale psychosocial impacts. The psychological impacts may include pandemic-induced distress, fear of the virus, death anxiety, diffused anxiety which is future-oriented, grief, the physical isolation of individuals, families or communities leading to non-pathological pain and emotional and mental health problems in a small minority, worsening of pre-existing problems, namely, severe mental disorder; alcohol abuse and humanitarian aid-related problems such as anxiety due to a lack of information (IASC 2007, 2015). Pandemics are highly impactful on individuals' health which may threaten people's lives or mental well-being. This can cause significant numbers of casualties, disabilities and sudden deaths, and may lead to the fear of contagion, endangering the safety and normal functioning of the community. The psychosocial impact created by the pandemics can exceed the individuals' and community's management capacity, often leading to high levels of distress where the effects or the impact can last longer than expected or planned even after the outbreak has ended (Que *et al*.2020:33). Studies on psychosocial effects of the outbreak of Severe Acute Respiratory Syndrome (SARS) have shown adverse psychological and physical outcomes such as higher depressive levels among those impacted by the pandemic (Ko *et al*. 2006: 397). Survivors of these sudden outbreaks report experiencing fear of death, stigma from the community, and discrimination and violence in some cases. Contacts and the health care providers, on the other hand, experience anxiety, grief and stigmatisation (Van Bortel *et al*. 2016: 214; Lithin *et al*. 2019: 159).

Physical and social isolation of individuals, families or communities exposed to the virus can create an additional risk for psychosocial problems (IASC 2015). At the

same time, most survivors and caregivers show a variety of distress reactions while a small minority experiences diagnosable mental health problems. Impact on the nurses and healthcare providers also involves effects such as stigma and isolation, disruption in the workplace and cultural life, loss of trust in health services, and the loss of emotional support or coping resources (Hwang *et al.*2020:1217). There is also a decline in income generation within families due to travel and work restrictions, as well as the loss of family and employees exposed to Covid-19 (IASC 2015). Internationally, this may lead to stigma, discrimination and blame towards specific staff and communities due to fear of unknown or the fear of the infection and a increased interaction with affected areas (Van Bortel *et al*. 2016: 214). While there is large-scale experience of moral and emotional distress and the universal need for psychosocial support during the pandemics, there is a varying degree of vulnerability experienced by different groups of healthcare providers based on their age, their gender, the social locations, predominantly those who have precarious living conditions and lifestyles, few resources and limited access to social and health services. The health care workers and front-line workers too are at risk of experiencing high amounts of distress (Grace *et al*. 2005: 385; PAHO 2016: 1-17).

Having looked at the psychosocial impact of pandemics, it is also essential to understand frameworks for conceptualising the same. The literature points out particular mental health vulnerabilities among those quarantined (Chatterjee and Chauhan 2020: 125) and front-line healthcare workers (Spoorthy, Pratapa and Mahant 2020: 102). Nurses who were in quarantine at home and in designated health facilities indicated a sense of dejection, disconnect, anxiety and the experiences of social stigma and emotional trauma. Given their constant exposure to the health risks, many reported fears, including death, anxiety and concern about their health and their loved ones and their families. Stigma is a major social determinant of ill-health that drives factors including, morbidity, mortality, and health disparities (Bendau *et al.*2020:125).

Stigma against patients and healthcare providers during the Covid-19 pandemic and its mental health effects are slowly being documented (Singh and Subedi 2020: 102).

The infectious nature of Covid-19 disease and preventive measures of lockdown containment and stigma mainly targeted at specific communities, castes, class, and religion created an atmosphere of suspicion and doubts among nurses within the Saudi Arabian hospital under study (Yeung and Gupta 2020:25). Previous studies have been published which explored the prevalence of psychological outcomes among healthcare workers during infectious disease outbreaks (Chew *et al.* 2020b: 559; Tan *et al.* 2020: 317). However, to date, the impact of the Covid-19 outbreak on the psychosocial health of nurses has not yet been systematically reported.

2.9 COMMON PSYCHOSOCIAL FACTORS AFFECTING CRITICAL CARE NURSES DURING THE PANDEMIC

Nurses who work in Critical Care Units take care of people with acute and chronic health problems that require permanent, specialised and intensive nursing care. Nurses perform their roles in a clinical context where specific characteristics co-exist, namely:

- direct work with vulnerable persons
- high level of responsibility for their work tasks and the consequences of possible errors
- the need to confront unpredictable events namely suffering, pain and death
- the development of critical judgement regarding the actions produced after a medical diagnosis
- interacting with the families and their loved ones of the people they care for
- maintaining a balance between work and personal life

 (Lakanmaaa *et al*. 2012: 329).

Psychosocial factors are the interactions between the work, the workers, the environment, the satisfaction with the work performance and the organisational working conditions. These factors may also involve the worker's capacity, needs, culture and personal situations. These factors positively and negatively influence the worker's health, welfare, and performance (Blanch *et al*. 2015: 633). Many studies focused on recognising protective factors that would help health professionals' performance and improve their adaptation during the pandemic (Dalglish 2020:

1189). However, this over capacity for adaptation and resilience can be due to the protection and the support provided by having adequate working conditions and environment, with a decrease in psychosocial risk factors.

Researchers Karasek and Theorell (1990: 185) presented a theoretical two-dimensional model relating the psychosocial dimensions of demand and control at work to physical and mental illness risk. Work demands include, psychological pressures, such as time and speed in carrying out the work tasks, and the contradictory conflicts that can arise. The term control is related to the task, that is, the worker's skill and competencies or the dexterity to comply with them, and the opportunities to participate in decisions in the workplace to perform such tasks (Karasek and Theorell 1995: 185). In addition to the model, there should be social support systems or structures in the workplace which can be defined as the level of social interactions between colleagues and managers at work (Theorell *et al.* 1988: 189). As the Covid-19 pandemic accelerates, global health care systems have become overwhelmed (Dalglish 2020: 1189), leading to tremendous psychological pressure on nurses in the care of critically ill patients with Covid-19. Front-line Critical Care nurses experience a vast workload, long-term fatigue, infection threat, and depression with the death of patients they care for. Many also face anxiety or even misunderstandings among patients and their family members. In the early stage, nurses from other clinical areas outside of the Critical Care Units did not communicate with them due to fear of contracting the virus and this created lonely feelings and stigmatisation from the health teams. Additionally, they worried and stressed about their families and loved ones and vice versa. These factors have resulted in high psychological and psychosocial pressure among Critical Care nurses caring for critically ill Covid-19 patients in the Saudi Arabian Hospital under study.

One of the vital psychosocial factors affecting the Critical Care nurses during the pandemic was the inability to travel and be with their families. Saudi Arabia attracts many migrant workers from low-income countries. It was estimated that during 2019, legally resident foreign workers made up a little more than two-thirds (67.3%) of the total workforce in Saudi Arabia, excluding undocumented workers and those working in the security and military sectors (General Authority for Statistics 2020). The

hospital under study has an average of 80 % expatriates who have sought employment in Saudi Arabia due to financial constraints in their country of origin and to earn tax-free income to be able provide better lifestyles, education and living conditions for their families. The hospital nurses are very diverse, and many migrate from different counties, namely South Africa, India, the Philippines and Egypt.

2.9.1 FOREIGN NATIONALS AND THE PSYCHOSOCIAL IMPACT ON CRITICAL CARE NURSES DURING COVID-19 PANDEMIC IN SAUDI ARABIA

Foreign nationals are among the most susceptible group of Saudi Arabia, often facing several physical and mental health challenges (Raghavan and Cooper 2018: 182). Foreign national nurses during the Covid-19 pandemic were one of the stark examples of how the pandemic intensified the existing rifts within the social structures in Saudi Arabia. As an outsider to the host city, the culture challenges already make foreign nationals a vulnerable population. The global pandemic and the subsequent lockdown led to further intensification of uncertainty and economic vulnerability among the foreign nationals, as many lost their livelihoods and their zest to work due to inability to travel and be with their families in their respective countries due to travel bans and the surge of Covid-19 patients. The sudden lockdown, coupled with anxiety travel bans and restrictions, made it difficult for nurses to focus on their work tasks. The high prevalence of Covid-19 cases, and the fear of contracting the disease itself, heightened their anxieties. The community, the patients and their families became increasingly inhospitable, further intensifying a sense of panic and alienation among foreign nationals leading to the desperation to return to their homelands.

Lack of access to information, transportation, food, health and essential facilities and support systems worsened the plight of foreign nationals. Many of them reached out to support groups and social workers for assistance with these concerns. Foreign national nurses reported being locked into their tiny accommodations with their colleagues sharing three in one room, surfing on their mobile phones for the whole day and worrying for their loved ones who were back home with some infected with

the Covid-19. Although the quarantine had been planned to control potential health catastrophes, the impact of quarantines or isolation and compliance with restrictions is often an unpleasant experience and fear of reality for those who endure it. Separation from loved ones, loss of freedom, helplessness, vagueness and lack of knowledge over the disease status, fear, boredom and job burnout can potentially cause dramatic effects on the affected individuals, especially on the mental health of the quarantined. Traditionally, masculinity scripts of being providers and breadwinners often prevented male nurses from sharing their vulnerabilities with the family members back home.

Family members back home, too, were worried about the safety of their family and relatives who lived in Saudi Arabia, which was the breeding ground of Covid-19 infection as portrayed in the media and Saudi News statistics. Some of the foreign national nurses who approached the Human Resources departments at the hospital expressed helplessness and desperation during their discussions, while many others expressed intense anger against the system. This also included anger towards management personnel who showed complete apathy when they were approached for help. Foreign national nurses did not know what the future held for them as they felt lonely, scared and some cut off from their families and communities back home.

2.10 CONSEQUENCES OF PSYCHOSOCIAL FACTORS ON FOREIGN NATIONAL CRITICAL CARE NURSES DURING THE COVID-19 PANDEMIC

As the number of patients with Covid-19 infections increased, more health resources, including personnel, beds and facilities, were at maximum capacity. With limited resources, people will be under tremendous pressure and experience more significant distress, especially healthcare workers compared with the general population, healthcare workers faced immense pressure and challenges from the Covid-19 pandemic. This pertained to those who might be in contact or exposed to suspected or confirmed cases   due to the high risks of infection, inadequate protection, loss of control, lack of experience in managing the disease, overwork,

negative feedback from patients, perceived stigma, significant lifestyle changes, quarantine and less family support.

These factors increased the incidence of psychosocial problems among healthcare sectors, such as fear, anxiety, depression and insomnia, which can negatively affect work efficiency and long-term well-being(Al Maqbali *et al.*2021:141). Some of the significant consequences of the Covid-19 pandemic among nurses is related to, psychological effects, behavioural consequences and high turnover of nurses due to fatigue and work overload emanating from the shortage of staff.

2.10.1 PSYCHOLOGICAL CONSEQUENCES

The Covid-19 pandemic outbreak has posed a significant threat to public health worldwide. Nurses fighting against the pandemic on the front line were under great physical and psychological distress. This psychological distress factors were predominantly described as sleep disturbance or insomnia, the symptoms of anxiety and depression, post-traumatic stress, inability to make decisions and even somatic symptoms (Al Maqbai *et al.* 2021:141). Recent literature from many cited articles, highlighted the ill-effects of stress factors and symptoms on the nurses' psychological well-being and work or job outcomes (Falguera *et al.* 2021: 1-10; Faremi *et al.* 2019: 68 Vivian *et al.* 2019). Stress can generally be sourced from stressful situations that a person has no control over, such as a pandemic. Currently, there is an enormous surge of studies on how the Covid-19 pandemic has caused emotional and work stress to the various health care systems across the globe (Bong *et al.* 2020: 86; Iyengar, Jain and Vaishya 2020: 1443).

Among the healthcare workers, nurses were found to be the most vulnerable population that were anxious, overwhelmed and stressed in caring for and treating patients infected with Covid-19. (Mo *et al.* 2020: 1002). Additionally, external factors, including workload, work- stress, work environment and training, also played an essential role in influencing the mental health of nurses (Maharaj, Lees and Lal 2018: 61; Molina-Praena *et al.* 2018: 2800). Few studies highlighted the positive influence of social support and family support on psychological health

(Hamaideh 2012:15; Kutluturkan *et al.* 2016: 33 and De Brier *et al.* 2020:24). However, in a previous public health crisis, a study reported that front-line nurses received intense stigmatisation from family, co-workers and the community (Taylor *et al.* 2020:102).In addition, the coping style was also said to be related to mental health among nurses (Ilić *et al.* 2017: 167). Healthcare and hospital staff in crises such as the Covid-19 pandemic is under more stress. They are exposed to infection with Covid-19 due to their frequent exposure to infected patients and psychological and the psychosocial distress, long working hours, fatigue, occupational stigma and physical violence (Zhang *et al.* 2021: 1584). Being exposed to a prolonged source of individual and organisational distress, may exceed their coping skills, as illustrated in Figure 2.1 below. During this period, a more comprehensive understanding of the psychological burden among different groups of health carers is crucial for providing psychological support, improving mental health support services and strengthening mental healthcare wide.
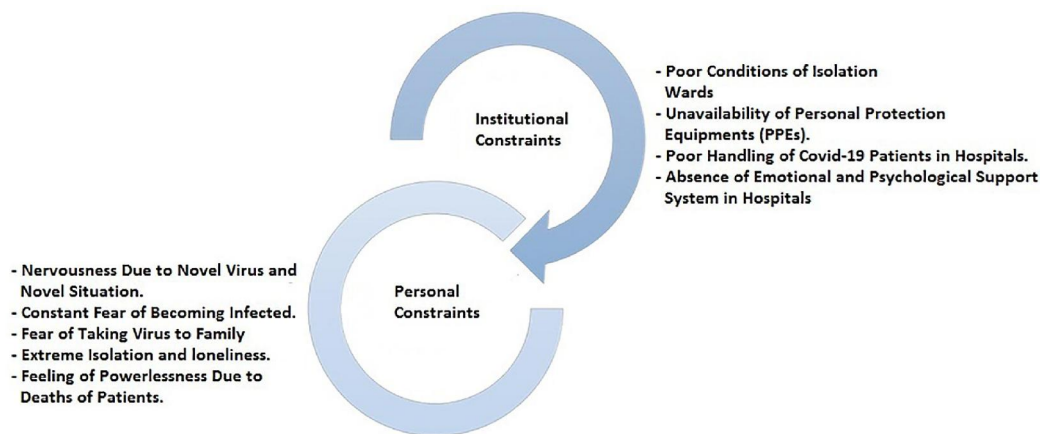
Figure 2.1 Personal and organisational psychological consequences(Zhang et al. 2020:242)

2.10.2 BEHAVIOURAL CONSEQUENCES

The emotional and behavioural response to the Covid-19 global pandemic was multi-factorial. It relied not only on external components, but also on the personal and

innate factors as well. However, the reaction to the current circumstances seems to have predominant elements within the overall population. A significant increase in the feelings of functional impairment, boredom, stigma, worry, phobia, frustration and anger has been observed (Ahmadi and Ramezani 2020: 285; Brooks *et al.* 2020: 912). Many behavioural factors influence the Critical Care nurses' behaviour during the Covid-19 pandemic and the researcher outlined the critical behavioural factors related to psychosocial factors in the Critical Care Unit with direct patient care exposure during the pandemic, namely, role conflict, lack of organisational justice, workload, interpersonal conflict, emotional work, job security, psychosomatic health problems and burnout were but a few behavioural consequences as illustrated in Figure 2.2.

Figure 2.2 Illustration of various psychosocial factors and behavioural consequences. Adapted from WHO (2020), wellbeing program.

- Role conflict: This is the situation whereby an employee cannot simultaneously satisfy the contradictory role expectations in which they are involved. There is evidence of role conflict when an employee receives contradictory demands from two or more people or persons or tasks without having the necessary resources to complete them. Previous researchers have shown that problematic distress levels were 53 per cent more likely for workers reporting role conflict (Johannessen, Tynes and Sterud 2013: 605).

- Lack of organisational justice–this refers to the extent to which employees perceive they are being unfairly treated in their workplace and the perceptions of the absence of reciprocity in social exchanges during interaction. Low organisational justice is known to be a potential risk factor for poor physical and psychological health among employees (Kobayashi and Kondo 2019: 2143).

- Workload: This applies to quantitative and qualitative workload factors. Quantitative workload factors refers to the number of activities to be performed in a given time period. In contrast the qualitative workload refers to the difficulty perceived by employees related to the task and the volumes of information that needs to be processed concerning the time available (Gil-Monte 2016: 86). A high workload can be associated with low well-being and high risks of health problems (ILO 2020:8).

- Interpersonal conflicts: This refers to the frequency with which workers perceive that work conflicts are coming from the hospital management teams, their colleagues, patients, or relatives of the patients. Interpersonal conflicts can be associated with health problems, particularly depression (Kubik *et al.* 2018:147).

- Emotional work refers to the efforts, the planning, and control necessary to express the organisationally desirable emotions during interpersonal transactions. This includes emotional demands, such as "dealing with strong feelings of sorrow, anger, desperation, and frustration" at work. Previous

researcher have alluded that problematic distress levels were 38 % more likely for workers reporting high emotional work (Rose *et al.*2021:252).

- Job insecurity: This is the perceived threat of losing one's current job in the near future (Heaney, Israel and House 1994: 1431), or also that the employer did not comply with his obligations or promises (breach of psychological contract), which can have equally severe consequences as actual job loss. Mainly, job insecurity is considered a stressor that negatively affects the employee's physical, psychological, and social health (De Witte, Pienaar and De Cuyper 2016: 18).

- Psychosomatic health problems refer to the alterations in which mental processes influence the organism (Montiel *et. al.*2016: 828). Among the most common conditions, there are various types of symptoms affecting multiple organs and systems in the body. Examples of these are namely back pain, tension headaches, sleep problems, chronic fatigue, heartburn, tension diarrhoea or heart palpitations Jaradat *et al.*2016: 381).

- Working conditions or work demands and the consequences that arise from various behaviours can be significantly affected by the psychological, psychosocial and social context, mainly when events that affect the entire population occur, such as pandemics that Covid-19 caused.

2.11 SUMMARY OF THE CHAPTER

The various concepts of psychosocial factors in the health care sector experienced by nurses were highlighted. A complete framework of factors that affect the well-being of patient-care workers was explored and discussed in-depth, aligned to the study aims and objectives. The literature review contributes to the general theme, specifically nurses' psychosocial experiences during the pandemic of Covid-19. In the next chapter, the theoretical framework underpinning the study and the rationale behind the choice of the framework will be discussed.

CHAPTER THREE
THEORETICAL FRAMEWORK

3.1 INTRODUCTION

The theoretical framework underpinning this qualitative study and the rationale behind the choice of the framework will be discussed in this chapter. A framework is known as a conceptual underpinning of a study (Polit and Beck 2017: 119) and a theory enables an accurate description of phenomena, while offering a systematic explanation of processes that leads to knowledge claims. The researcher chose to use Alderfer's Existence, Relatedness, and Growth (ERG) theory to guide the study. Given the various behavioural models both social and cognitive, the study adopted the ERG model by Alderfer (Alderfer 1969: 142). Alderfer proposed the ERG theory of humanistic needs based on Maslow's hierarchy of needs. He believed that people have the following three core needs:

- A need for survival
- A need for relationships
- A need for growth and development.

The framework was based on the three-fold conceptualisation elements of basic underlying human needs namely existence, relatedness, and growth. While existence needs includes various required basic material, safety and physiological desires, the concept relatedness encompasses needs that involve peoples' willingness to establish and maintain meaningful interpersonal and social relationships. Foreign national Critical Care nurses experience significant stress when fighting against Covid-19 with health, safety, interpersonal relationships and related knowledge requirements. Therefore the various constructs of the ERG theory were used to explore the psychosocial experiences of foreign national Critical Care nurses who cared for their patients amidst the Covid-19 pandemic in a Saudi Arabian hospital. These Critical Care nurses, whilst caring for these patients have had to be mindful of patients' as well as their own needs for survival; for relationship interaction and a need for growth and development. This study also used in-depth interviews to understand the psychosocial needs of front-line Critical Care nurses working in

extraordinary pandemic situations, analysing participants' needs from the lens of the ERG theory.

3.2 THE HISTORY OF ALDERFER'S ERG THEORY

The ERG theory (Alderfer 1969: 162) extends Maslow's hierarchy of needs (Maslow 1968: 140). Alderfer suggested that the basic needs could be classified into mainly three categories rather than five categories. These three category types of basic needs are existence needs, relatedness needs and growth needs.

- Existence needs are similar to Maslow's physiological and safety needs categories.

- Relatedness needs mainly involve interpersonal relationships and are comparable to aspects of Maslow's belongingness and esteem needs.

- Growth needs are those related to attaining one's overall potential and are predominantly associated with Maslow's esteem and self-actualisation needs.

Existence needs are similar to Maslow's physiological and safety needs. Relatedness needs involve interpersonal relationships and interaction and are comparable to the elements of Maslow's belongingness needs and self-esteem needs. Growth needs are mainly related to the attainment of one's potential. The justification for applying Alderfer's ERG theory is to demonstrate an understanding of theories and concepts relevant to the research topic. It will also relate to the broader concept of psychosocial factors that may influence foreign national Critical Care nurses' experiences in the ICU environment, whilst caring for Covid-19 patients during the pandemic. The ERG theory concept differs from the main hierarchy of needs. It does not suggest or allude to the lower-level needs that must be completely satisfied before upper-level needs become motivational. The ERG theory also indicates that if individuals are continually unable to meet upper-level needs, they will regress, and lower-level needs become the significant determinants of their motivation needs. With this theory, the implications and applications for managers are similar to those for the needs hierarchy pyramid. Managers should focus on engaging and meeting employees' existence, relatedness, and growth needs,

without necessarily applying the proviso that job-safety concerns necessarily take precedence over challenging and fulfilling jobs.

3.3 VARIOUS MODELS RELATED TO THE PSYCHOSOCIAL FACTORS INFLUENCING NURSES WITHIN CRITICAL CARE ENVIRONMENT

3.3.1 Maslow's Hierarchy of Needs

Maslow (1943: 370) categorised an individual's motivation into basic needs, psychological needs, and self-fulfilment needs (see also McLeod, 2020). If health care organisations were going to successfully weather the Covid-19 pandemic, Maslow's theory would have to be put to the test and operationalised in immediate actions. It quickly became apparent that his analysis was to correct conceptualised motivation as a pluralistic behaviour, whereby needs can operate on many levels simultaneously (Tay and Diener 2011: 354). One way to understand this theory is to apply a classic theory of human motivation needs. The basic premise of this theory application, is that people will not be happy or well-adjusted unless they have their basic needs met (Greenberg 2002: 154). Not only are humans motivated by meeting their needs, but their needs are ordered in such a way that if basic needs are not met first, then humans will not have the motivation to meet needs that are not considered fundamental. Basic needs are described as lower-order needs, while needs beyond essential needs are described as higher-order needs(Maslow1943:370).

According to Smit, Cronje and Palmer (1992: 324), Maslow's theory relies on the people who want to increase what they want to achieve or attain in their life and their needs are prioritised according to their importance based on their human needs. Deriving from the hierarchy in the pyramid of needs by Maslow, the content theories of job satisfaction evolve around employees' basic needs and the factors that bring them a reasonable degree of satisfaction (Benjamin *et al.*2020:125). Based on the fundamental physical, biological, social and psychological needs of human beings, Maslow derived a five-stage theory model that places the needs of individuals in different categories and prioritises their attainment according to Maslow (1943:370),

as illustrated in Figure 3.1 below. These categories are in order of decreasing priorities which are:

- Physiological needs related to food, shelter and clothing.
- Safety and security needs which is the physical protection.
- Social needs related to the association with others.
- Self-esteem needs which is receiving acknowledgement from others and
- Self-actualisation needs, the desire for self-accomplishment or to leave behind a legacy.

Figure 3.1 A theory of human motivation (Maslow 1943: 370).

Although Maslow's hierarchy of basic needs is not a clear linear progression, it does offer a multi-layered model where Covid-19 management activities could meet society's needs, particularly if integrated with the social determinants of health.

3.3.2 Herzberg's Two-Factor Theory/Motivator-Hygiene

Herzberg's two factor theory, also known as the motivation hygiene theory, is one of the most significant model of theories related to job satisfaction (Scanlan and Still 2019:62). The central concept of Herzberg's theory is related to the difference between the two factors namely, motivation and hygiene factors. Motivation factors include achievement, recognition, the work itself, responsibility, advancement and

the possibility for growth (Herzberg 1966: 339; Herzberg 2003: 87). Hygiene factors include company policies and administration, supervisors' relationships, interpersonal relations, working conditions and salary (Herzberg 1966: 339; Herzberg 2003: 87). Motivation factors can lead to positive attitudes towards the job, and hygiene factors surround the actual doing of the job (Herzberg *et al.* 1959: 450; and Barati and Bashirian 2020:165). Figure 3.2 below presents Hertzberg's Two Factor Theory of Motivation.

Figure 3.2: Herzberg's Two Factor Theory (Herzberg 1996: 339)

Herzberg's theory continues to be used to determine and identify the level of job satisfaction in research within a variety of international settings. Numerous studies in nursing populations utilised Herzberg's theory specific to job satisfaction, and several have also used it as a conceptual framework (Edunote, 2021)

3.3.3. McGregor's X and Y Theories

Organisations in all sectors are dealing with a host of new challenges, from disrupted supply chains to new safety regulations. A challenge that is less obvious can significantly impact an organisation's recovery. How to manage a workforce that has been fundamentally altered by the response to the Covid-19 global pandemic factors

requires motivational approaches. McGregor (1960: 84) identified the manager as a pessimistic authoritarian who assumes his staff lack the characteristics or inherent behaviour of responsibility and accountability, a sense of direction that can be a hindrance to the work productivity or the work expectations.

Applying these assumptions to a work environment, one could argue that two of the leading causes of work dissatisfaction among nurses is having to deal with problem patients and strict and inconsiderate management. This theory neglects the psychosocial aspect of the nurse. Figure 3.3 below illustrates MC Gregor's theory X and Y.

MCGREGOR'S THEORY X & Y

Theory X	Theory Y
Work avoiding	Work is natural
Need to control	Capable of self-direction
Avoid responsibility	Seek responsibility
Workers seek security	Can make good decisions
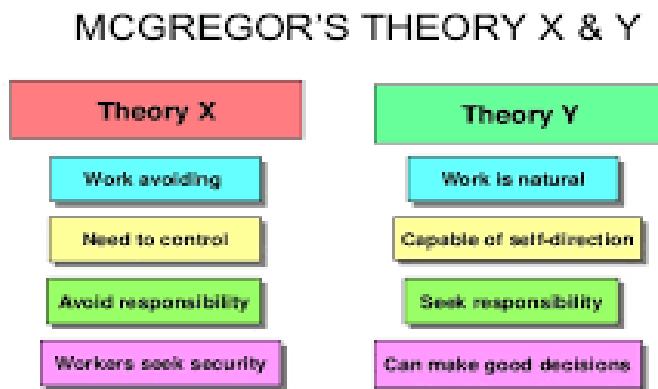
Figure 3.3   McGregor Theory X and Y theory (McGregor 1960: 84)

For this study, the Existence, Relatedness and Growth (ERG) model by Alderfer was adapted as this theory offers clear explanations of the mechanisms that can drive the implementation processes and mainly focuses on observable actions rather than presenting a list of factors that need to be considered.

3.4 THE THEORETICAL FRAMEWORK THAT GUIDED THE STUDY

A framework is the overall conceptual underpinning of a study (Polit and Beck 2017: 119). A theory enables the accurate description of phenomena, offers a systematic explanation of processes and leads to knowledge claims. Henning, Gravett and Van

Rensburg (2005: 25) describe theories as statements about how things are connected and why such things occur the way they do. Theories and theoretical frameworks assist people to sort out the world, make sense of it and guide one on how to behave in it. The researcher used Alderfer's Existence, Relatedness, and Growth (ERG) theory to guide the study. Given the various behavioural models– social and cognitive, the study adopted the ERG model by Alderfer (Alderfer 1969: 142). Alderfer proposed the ERG theory of humanistic needs based on Maslow's hierarchy of needs. He believed that people have three core needs: a need for survival, a need for relationships and a need for growth and development.

Foreign national Critical Care nurses experience significant work stress factors when fighting against Covid-19 with needs for health, safety, interpersonal relationships and related knowledge. The various constructs of the ERG theory were used to explore the psychosocial experiences of foreign national Critical Care nurses who were caring for Covid-19 patients in a Saudi Arabian hospital. Therefore, this study used in-depth interviews to understand the psychosocial needs of front-line Critical Care nurses working in extraordinary pandemic situations and to analyse the main content of their needs from the lens of the ERG theory, whilst trying to provide a perspective for interventions to alleviate the psychosocial ill-health at the front-line. Figure 3.4 below presents a graphic illustration of Alderfer's ERG Theory of psychosocial factors.
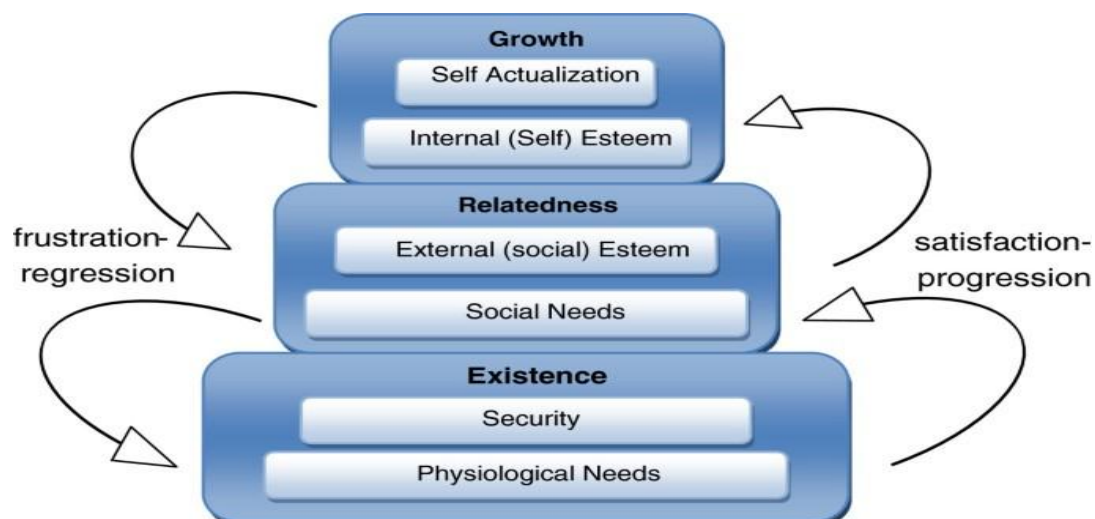
Figure 3.4 Alderfer's ERG Theory of psychosocial factors influencing Critical Care Nurses whilst caring for Covid-19patients in the Critical Care Units. (Alderfer 1969: 142).

Over the months, the Covid-19 global pandemic has disrupted the employees' experience, changing everything from where people work to how they interact with colleagues, patients and the community. There are currently signs that the pandemic is affecting employees' fundamental expectations and assumptions about work. According to Alderfer (1969: 142), man is motivated by three core needs: Existence, Relatedness, and Growth, hence the term ERG theory. The existence needs manifest in the workplace as the need for monetary remuneration and fringe benefits, while the relatedness needs manifest in peer or co-worker relations. Growth needs represent the employee's desire for personal development and advancement namely recognition and rewards. Implementation of various interventions or inputs and process which provide outputs or expected results in terms of improved working conditions, improved motivation, improved staff retention and various other psychological, behavioural and psychosocial factors.

These, in turn, will result in the effects of the intervention in terms of measurable improvements on the availability, productivity, competence and or responsiveness of Critical Care nurses. The products may positively influence performance, namely the outcome of the interventions, for which the intervention is not accountable. Improved performance, in turn, will contribute to the improved health status of foreign national Critical Care nurses during the Covid-19 pandemic. This can be related to many factors on a macro, micro and individual level. Empirical studies have shown that employees' satisfaction with fringe benefits significantly influences their organisational commitment (Bagie'nska and Anna 2021:1903). Gimenez-espert *et al.(*2020:566) reported that satisfaction with benefits and acknowledgements positively determines job performance and output. Research has also shown that commitment to co-workers (peer relatedness) is significantly and positively related to organisational commitment (Hakami *et al*. 2020:692) and job performance.

3.4.1 CORE PROPOSITIONS OF ALDERFER'S ERG THEORY

The three predominant types of needs are existence, relatedness, and growth. Existence needs are aligned to Maslow's physiological and safety needs categories according to his model. Relatedness needs can involve interpersonal relationships and are comparable to Maslow's belongingness and esteem needs. Growth needs are those related to attaining one's full potential and are associated with Maslow's esteem needs and self-actualisation needs (Alderfer 1969: 140). The ERG model differs slightly from the hierarchy of Maslow's needs. It does not suggest or allude that lower-level needs must be completely satisfied before upper-level needs become motivational. ERG theory also indicates that if individuals are continually unable to meet upper-level needs, they will regress, and lower-level needs become the significant determinants of their motivation. The theory's implications for managers are similar to those for the needs hierarchy and managers should focus on meeting employees' existence, relatedness, and growth needs, though without necessarily applying the proviso that job-safety concerns necessarily take precedence over challenging and fulfilling job requirements as illustrated in Figure 3.5 of the components of Alderfer's ERG Theory (Alderfer 1969: 142).
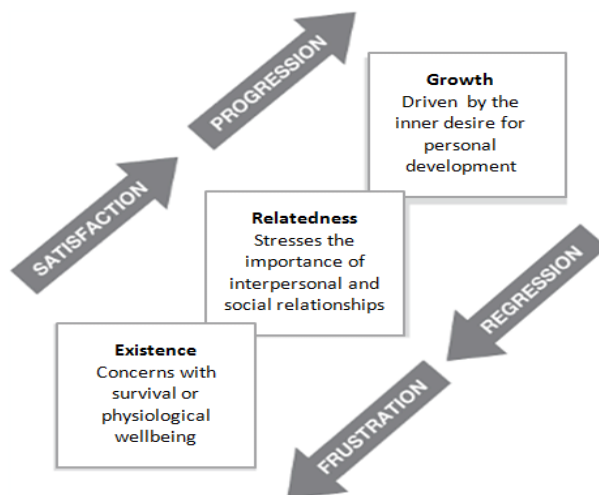
Figure 3.5: Components of Alderfer's ERG Theory (Alderfer 1969:142).

- **Existence Needs:** includes all material and physiological desires such as food, water, air, clothing, safety, physical love and affection. This is related to Maslow's first two levels in the pyramid.
- **Relatedness Needs:** Encompasses the social and external esteem; relationships with significant others such as family, friends, co-workers and employers. This also means being recognised and feeling secure as part of a group or family. Maslow's third and fourth levels.
- **Maslow's fourth and fifth levels. Growth Needs**: Internal esteem and self-actualisation compels a person or individual to adopt creative or productive effects on oneself and the environment namely to progress toward one's ideal self). This includes desires to be creative, innovative and effective and to complete any meaningful tasks.

The priority of such needs differs from person to person. Alderfer's ERG theory prioritises the categories' concreteness. Existence needs are the most concrete and most accessible to verify. Relatedness needs are less tangible than existence needs, depending on a relationship between two or more people. Finally, growth needs are the minor concrete in that their specific objectives depend on the uniqueness of each person. Within the context of this study, this theoretical model was adopted to lead the discussion related to the topic of inquiry in the study, whilst depicting its various psychosocial factors as drivers to effective development and recommendation of supportive well-being strategies for foreign national Critical Care nurses.

3.5 APPLICATION OF ALDERFER'S ERG THEORY

While the Covid-19 situation is still far from reaching its peak and continues to disrupt brands' ambitions and plans, there are certain classic theories and frameworks that can offer some guidance in the post-coronavirus era. Thinking beyond the current predicament, when things return to relative normalcy where does that leave healthcare and their nurses? One such framework that can be fruitfully applied is the ERG motivational theory of human behaviour. The framework is based on a three-fold conceptualisation of basic underlying human needs: existence,

relatedness, and growth. While existence needs include all kinds of required basic materials, safety and physiological desires, relatedness encompasses needs which involve the desire people have for establishing and maintaining important interpersonal and social relationships.

While it does categorise needs into lower-order ones namely physiological and safety needs and higher-order needs and growth needs related to personal development, the critical difference between this and other popular needs-based frameworks like the one by Maslow is that ERG model does not assume lower-level need satisfaction as a prerequisite for the emergence of higher-order needs. Hence, it offers a more realistic account where multiple needs dynamically co-exist and interact.There are some needs of the workers that can influence their work motivation. According to the ERG theory Alderfer (1969: 142), employees' motivation at work is impacted by three factors as illustrated in Figure 3.5. The first factor is: (a) existence and it refers to the security and physiological needs of the worker. This also includes all material needs of the employees. The second factor is: (b) relatedness which refers to the self-esteem and the social needs of employees. This also includes the relationships of the employees with family, friends, co-workers and employers. The third factor is: (c) growth which refers to the self-actualisation of the employees. This includes the desires of the workers to be more productive. Employee satisfaction and productivity can be influenced by workplace flexibility.

A study conducted by Davidescu *et al.* (2020: 6086) examined the connection between worker development and work-time and work-flexibility as relevant characteristics of job satisfaction, and job performance as well as the impact of different types of flexibility such as contractual, functional, working time, and workplace flexibility in raising overall employee job satisfaction. The results of the multiple correspondence analysis revealed that only one-third of employees demonstrated high levels of flexibility, whereas logistic regression analysis revealed the importance of functional flexibility, working time flexibility and workplace flexibility in increasing employee job satisfaction. Flexible scheduling in the workplace has an effect on employee loyalty and job satisfaction. A study conducted by Giovanis (2019: 84) investigated the relationship between job satisfaction, employee loyalty

and two types of flexible employment arrangements: teleworking and flexible timing. The findings support the existence of a positive causal effect from these employment arrangements, teleworking and flexible scheduling on job satisfaction and employee loyalty.

Work-life balance has been described as the balance between work and all other life activities that occur outside of work (Guest 2002: 255). There is a taxonomy of ideologies to work-life balance. Forsyth (1980: 175) suggested that there are four categories of work-life balance. The first is (a) the absolutist. An equal distribution of time, involvement, and satisfaction across work and life domains as suggested by Greenhaus, Collins and Shaw (2003: 510) is supportive of the absolutist assortment. The second category is (b) the exception's perspective which is utilitarian in nature and aims to reveal what balance works best for the greatest number of individuals (Reiter 2007: 273). The subjectivist being the third category (c) and (d) the situationist being the fourth. Both ideologies are two perspectives of multiple iterations of balance. Specifically, the situationist perspective emphasises the definition of balance to suit the individual's personal context. Moreover, balance facilitates the grouping of people per similarities in values together with career, gender, family structure, life stage, or financial gain level with varied definitions of work-life balance (Reiter 2007: 273). Gajendran and Harrison (2007: 1524) found that distal outcomes, such as performance, job satisfaction, turnover intent and role stress were partially mediated by perception of autonomy. For the purpose of this study, the researcher will discuss the following factors aligned with the study objectives and the open-ended questions during the interview to gain more insight into the application of the ERG model namely psychosocial factors, work motivation, job satisfaction, fear and anxiety, social distancing and work load demands related to the ERG model application during Covid-19 pandemic as discussed below.

3.5.1 PSYCHOSOCIAL FACTORS AS A THEORETICAL CONSTRUCT

Understanding the role of psychological and psychosocial constructs of nurse's behaviour due to the Covid-19 pandemic is vital if effective interventions are developed to support long-term engagement in psychosocial factors within this

population of healthcare workers. The psychological literature from the general population also suggests that social constructs are essential in determining these factors. Normative beliefs relate to beliefs of others about one's engagement in psychological and psychosocial vicarious beliefs about others who are engaging in the behaviour (Liu *et al*.2020:112).

More pragmatically and moving away from an individualistic approach to a social model of behaviour, environmental factors may influence Critical Care nurses' behaviour. Support from management, family and friends appear important in influencing motivation for nurses and group therapy is essential in influencing motivation and support during and after the pandemic. Furthermore, socio-demographic factors such as ethnicity, gender, education, income and age may also be influential in determining likely behavioural and social influences among Critical Care nurses (Kaslow *et al*. 2020:117)). Given the evidence from the general population, the social environment may influence the psychological and psychosocial being of individuals. It is also important to examine what is known about these factors to pandemics and if interventions to address the psychosocial complexities of Critical Care nurses' behaviour are to be appropriately developed and applied.

The most important pandemic behaviour, in general, appear to be attitudinal beliefs that evaluate the positive and negative aspects of the behaviour. Expected outcome and self-efficacy beliefs, perceived competence, and perceived behavioural control relate to confidence in one's ability to perform the behaviour and are essential determinants of pandemic behaviour and experiences during Covid-19. Other important constructs involve an intention to undertake the behaviour, which incorporates setting goals and committing to the behaviour through self-regulatory skills. Given the various behavioural models, social and cognitive, the study adopted the ERG model by Alderfer. Clinical nurses experienced great stress when they were fighting against Covid-19 with needs for health, safety, interpersonal relationships and related knowledge.

The purpose of this qualitative study was to use in-depth interviews to understand the psychological needs of front-line nurses working in extraordinary epidemic situations, and to analyse the main content of their psychological needs from the lens of the ERG theory and to provide a perspective for interventions to alleviate the psychological stress of nurses at the front-line. Alderfer's ERG motivation theory differs from Maslow's theory in mainly three ways:

- At the lower-level, needs do not have to be gratified, where such a person may satisfy a need at hand, whether or not a previous need has been satisfied.
- Suppose a relatively more significant need is not gratified. In that case, the desire to gratify a lesser need will be increased, where the frustration in meeting high order needs may lead a person to regress to the situation to be a more concrete need category.
- Alderfer's ERG theory allows the order of the various needs to differ from person to person where it accounts for the "starving artist" who may place growth needs above existing ones.

The ERG Motivational Theory of Human Behaviour offers leaders a framework that is structured for charting steps forward in uncertain times such as the Covid-19 pandemic. The likelihood of new displayed behaviours and lifestyle norms or patterns formed during the pandemic, whereby the situations return to normal is relatively high. While the Covid-19 situation is still far from over and with the emergence of new variants that continues to disrupt health care sectors and their activity plans, some specific classic theories and frameworks can offer some guidance and psychological preparedness in the post -pandemic era. Thinking beyond the current predicament or situation, when things return to relative normalcy, can predominantly assist and steer Critical Care Unit staff towards recovery. One such framework that can be fruitfully applied is the ERG motivational theory of human behaviour as shown in Figure 3.6 below.
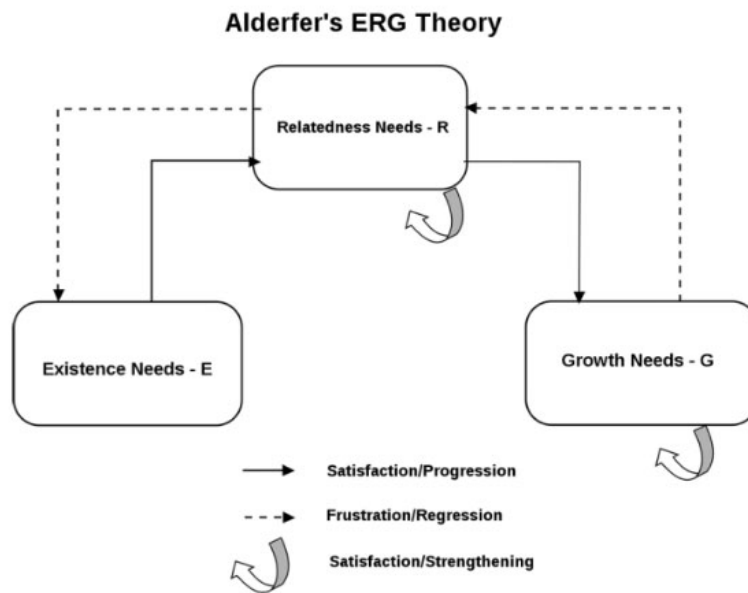
Figure 3.6 Alderfer's ERG model (1969: 142).

While the needs are categorised into lower-order ones, namely, physiological and safety-based existence needs and higher-order ones, such as growth needs related to personal development and the critical difference between these factors and many other popular needs-based frameworks like the one developed by Maslow, is that ERG theory does not assume lower-level need satisfactions as a prerequisite for the emergence of higher order needs. However, this offers a more realistic account where multiple needs dynamically co-exist and interact with each other. Applying this framework will highlight several notable takeaway messages for moving forward post-pandemic and lessons related to human coping and behaviour, including psychological and psychosocial factors influencing Critical Care nurses within the environment.

3.5.2 DETERMINANTS OF CRITICAL CARE NURSES BEHAVIOUR DURING THE COVID-19 PANDEMIC

Interventions should be designed to analyse the determinants that influence Critical Care nurses' performance during the Covid-19 pandemic. Implementation of various interventions inputs and process which provides outputs (expected results) in terms

of improved working conditions, improved motivation, improved staff retention and various other psychological, behavioural and psychosocial factors. These, in turn, will result in the effects of the intervention in terms of measurable improvements on the availability, productivity, competence and or responsiveness of Critical Care nurses. The effects may positively influence performance, namely the outcome of the interventions, for which the intervention is not accountable. Improved performance, in turn, will contribute to the improved health status of Critical Care nurses during the Covid-19 pandemic. This can be related to many factors on a macro, micro and individual level, as discussed below:

- The macro level, or the overall health system, includes resources allocation, planning and deployment of health workers, current regulatory framework, communication and decision-making processes and accountability mechanisms. These can be influenced by policy-makers and planners in the health sector and other stakeholders at a national level, such as the ministry of finance, ministry of education, professional associations, civil society groups and funding agencies health systems level.

- Micro-level, or the workplace itself district or facility, includes the availability of medical equipment, lifesaving drugs or medications and supplies, teamwork with collaboration and human resources management activities namely staffing. In principle, these can be influenced by administrative leadership, managers, colleagues, patients and other local partners (health facility level).

- Individual characteristics and living circumstances includes living in conflict areas or being a female or a newly graduated professional. These require specific group- approach strategies and can be developed locally by managers or nationally by policy-makers and planners with other stakeholders at individual level.

A nurse's performance is a complex issue, as various determinants influence staff behaviour at different levels. Multiple authors have regrouped the determinants (Rowe *et al.* 2005: 1026; Hongoro and Normand 2006: 130; WHO 2020). Determinants of poor work performance can be influenced in various ways, using

multiple methods at different levels or tiers in the healthcare system or structure. The 2006 World Health Report describes three levers to affect workforce performance: job-related interventions that focus on individual occupations, support-system related interventions and interventions that create an enabling environment and focus on organisational culture and organisational arrangements (WHO 2020). Using these levers, a further refinement can be made at micro, macro and individual levels to link these interventions to the determinants of poor performance.

3.5.3 PSYCHOSOCIAL FACTORS AFFECTING CRITICAL CARE UNITS

The Covid-19 pandemic has placed front-line healthcare workers, primarily nurses, at risk of physical, psychological, and psychosocial harm and exposure to ill health (Adams and Walls 2020: 1439). Increased contact with affected patients is predictive of acute anxiety and post-traumatic stress disorder (PTSD) compared with staff facing a higher risk of exposure (Kisley *et al*. 2020: 1642). Covid-19 has caused tremendous psychological pressure on healthcare workers (HCWs), especially at the front lines. Facing a novel "enemy" with many uncertainties, most of the HCWs needed to rush to rescue an unprecedented number of victims who overwhelmed the emergency rooms (ER) and intensive care units (ICUs). As a result, many healthcare workers reported psychological symptoms during the Covid-19 pandemic, such as acute stress (57%), depressive (48%), and anxiety (33%) symptoms (Shechter *et al*. 2020: 1-8). Exploring these factors among the ER and ICU HCWs is vital to optimising the support needed for these front-liners.

Maintaining their psychological and mental health is essential for nurses to play a valuable role during this pandemic. However, recent literature highlighted that Covid-19 significantly impacted nurses' psychological and mental well-being (Catton 2020: 4-6; Xing *et al.* 2020:145). During the Covid-19 crisis, ICU nurses have been reported to experience immense workload, exhaustion, infection hazards, fear of the disease, isolation, quarantine, social distancing, job- dissatisfaction and difficulty with the loss of patients whom they attend, with some extreme incidents being attributed to work demotivation, suicide and depression among nurses caring for the critically-ill patients (Shen *et al.* 2020: 1582 The following psychosocial factors will be

discussed: work motivation; job satisfaction; fear and anxiety of the disease; social distancing and loneliness and workload demands related to Critical Care nurses during the Covid-19 pandemic, which may influence nurses' psychological and psychosocial health.

3.5.3.1 Work Motivation

In a healthcare organisation, work motivation is an essential measure of a healthcare professional's response to the increasing challenges and demands (Toode *et al.* 2011: 246). Motivation is known as a process that begins with an inspiration to perform and energised to an end (Ryan and Deci 2000: 54). This initiates behaviours to accomplish the intended goals. Motivation is complex, multidimensional, and defined as the force within individuals that influences or directs behaviour (Marquis and Huston 2012:155). Motivation, according to Roussel and Swanberg (2009: 122), is a concept used to describe an external state which inspires a particular behaviour and internal responses revealing that behaviour. In the organisational context, motivation is the stimulus of work behaviour, which channels the worker's effort to accomplish the organisation's goals . Worker motivation can be the result of the interactions or collaboration between individuals, internal psychological process, their work environments, a transactional process and the fit between these interactions and the societal context (Franco*,* Bennett and Kanfer 2002: 1255). Nurses' work motivation impacts well-being, organisational performance, satisfaction, retention, engagement and commitment (Huang and Rong 2020:152). Regarding well-being, feelings of happiness are known as an advanced psychological experience of individuals (Lyubomirsky, Sheldon and Schkade 2005: 111). Individuals who were intrinsically motivated found that the job itself is interesting, challenging and fun (Hee and Kamaludin 2016: 342). The happiness and well-being of workers themselves depend mainly on their motivation level, organisational or personal sources of happiness at work (Warr 2013: 733).

According to Lambrou, Kontodimopoulos and Niakas (2010: 8), high quality services by healthcare professionals technically, are driven by motivation. In the organisational context, motivation is explained as the stimulus of work behaviour,

which channels the worker's effort to accomplish the organisation's goals (Suangga and Tuppal 2017: 24).The role of motivation on work outcomes or outputs in nursing was examined in several studies (Galletta *et al.* 2016: 61). Motivated nurses have reported more assertive behaviour, verbal outcome empowerment and high-performance quality than unmotivated nurses. In contrast, low work motivations, on the contrary, have led to a decrease in service quality. The success of any organisation depends on how well motivated its personnel or staff are. Nurses, especially in hazardous care units, have a professional obligation to care for the infected patient during a pandemic. It was revealed that the nurses, depressed from the death of their colleagues in the workplace and fear from being infected, became vulnerable to social stigmatisation in a study by Huang and Zhao (2020: 112).

3.5.3.2 Job Satisfaction

Sudden onset of a potentially life-threatening illness such as Covid-19 leads to an extraordinary amount of pressure on nursing staff coupled with an increased workload, physical exhaustion, inadequate personal protective equipment, fear of being infected and infecting family members (Pappa *et al.* 2020: 901), disturbance of work-life balance, neglect of individual and family needs, and lack of updated information on a new disease (Raudenská *et al.* 2020: 553). The detrimental effect is most significant among nurses directly in contact with infected or suspected Covid-19 patients on the front-line (Al Muharraq 2021: 237). Fear of infection among the health workers is based on awful statistics: at least 7000 health workers have died worldwide after being infected with SARS-Cov-2 (Amnesty International Report 2020), while more than thousands of the infected were nurses (International Council of Nurses 2020) . During the pandemic, the medical working environment is highly intense for the nurses. The combination of stress, high susceptibility for acquiring Covid-19, surges in workload, and the difficult job situation has created a challenging working environment that affects the quality of care to Covid-19 patients.

Job satisfaction is a very complex phenomenon with multiple causal factors mainly related to the work environment, supervision and management support. It is defined as the positive responses of professionals to working conditions that meet their

needs due to their assessment of the value or fairness of their professional experience (Song *et al.* 2020: 60).Employee job satisfaction and retention strategies are linked and can the result from various conditions within and outside of the organisation. Motivator drivers such as the work environment and perceived support from organisational leadership influences job satisfaction and employee retention decisions among direct care workers (Yoon, Choi and Park 2007: 388). Holmberg, Caro and Sobis (2017: 581) said that nurses working in acute in-patient settings identified their experiences of collaboration and close teamwork as significant motivators that account for their job satisfaction. To help understand the underpinnings of motivation, one must first explore what job satisfaction means because motivated employees will have job satisfaction. Depending on the rewards and incentives employees receive and the management's motives for giving them, employees will respond well to their work environment by being more productive.

3.5.3.3 Fear and Anxiety of Covid-19

Fear and anxiety about the virus and the mental health impacts of the restrictions are already creating a significant additional mental health burden across all of society. During this period, the breakdown in the humanising trend of ICU care mainly resulted from the isolation of Covid-19 patients. It was noted that direct exposure to a new infectious hazard may generate symptoms of anxiety, depression or other emotional factors that can have a negative impact on quality of life (Elbay *et al*. 2020: 113). Reorganisation of work tasks and allocations in the context of a crisis can also be a source of stress among employees. Moreover, psychological consequences for health care workers facing a global pandemic can be associated with lifestyle changes such as modified dietary and altered sleeping patterns as well as possible increases in tobacco consumption (Azoulay and Kentish-Barnes. 2020: 52).

Critical Care Units are well known for their stressful working environment due to the high workload demand and complexity of the conditions and nurses need to manage under higher levels of anxiety and depression (Vandevala *et al*. 2017: 16). Nurses, direct exposure to Covid-19 critically ill patients and working in the critical care

environment are some factors, which have been found to be associated with negative psychological impacts (Lai *et al*. 2020: 3976). Azoulay and Kentish-Barnes *(*2020: 52) identified several factors associated with mental health outcomes during the Covid-19 pandemic, such as fear of contracting the coronavirus, inability to rest adequately, inability to care for loved ones or family members, emotional stress, restricted visitation for relatives of patients and having to witness hasty end-of-life decision-making (Azoulay and Kentish-Barnes 2020: 52).

3.5.3.4 Social Distancing

The Covid-19 outbreak has spread across all continents globally, causing major economic losses, reduced physical interactions, and significant psychological distress (Remuzzi and Remuzzi 2020: 1225). Social distancing (physical distancing) in Saudi Arabia has included banning public gatherings, closure of schools and all non-essential shops, workplaces and services, and the recommendation of keeping a distance of more than 2 metres apart from others. Social isolation (self-isolation) guidelines in the KSA have included seven days of quarantine for those showing more than four symptoms or signs of or testing positive for Covid-19 and a 14 day quarantine period for others within the same household, although specific guidelines have varied over time. Due to the extent of the social distancing protocols and social isolation measures and policies being implemented by the government in response to Covid-19, social and psychological impacts on the public were anticipated and warrant further attention.

A recent rapid review of the psychological effect of quarantine found that more extended quarantine periods, infection fears, frustrations and boredom, inadequate supplies, inadequate information, financial loss and stigma were among the significant stressors. In addition to the protective recommendations and protocols against Covid-19, the fear of contracting the virus and subsequently dying from it, the uncertainty about the disease spread and type, the control and vaccines availability, daily routine interruptions by re-organising health care sectors, economic loss globally triggered fears and anxiety symptoms (Akdeniz *et al*. 2020: 695; Zhao et al. 2020: 446).

3.5.3.5 Workload Demands

According to Souza (2021: 464), the concept of workload may shed light on the dynamics of the crisis situation faced by majority of the nursing professionals in the first months of the first wave or the surge of Covid-19 of the global pandemic. It is important to take note that this theory does not view occupational risks as static concepts, or as an inherent part of the work process or job tasks but as it is often described (Souza 2021: 464) Instead, the workload is viewed as a set of dynamic components of the work process and environment, arising from different sources, internal or external to the worker. External sources of a working strain include many physical variables, namely as the radiation and variations in temperatures or atmospheric pressure changes; chemical interaction variables, such as the handling of risky acids, different types of solvents, soluble or drugs; biological variables such as viruses and bacteria; and mechanical variables, present in situations involving accident risks (Souza 2021: 464).On the other hand, internal sources of a strain includes physiological variables which can be often related to ergonomic elements such as poor posture, physical overexertion or excess weight-bearing, and psychological variables that influence psycho -emotional well-being, such as excessive working hours, constant demands for attention or problems in interpersonal relationships.

In view of these observations, this review aimed to examine the workload of nursing activities during the Covid-19 pandemic, focusing on the first quarter of 2020. Previous studies have analysed the work burden of nursing professionals, especially in hospital settings (Carvalho *et al.* 2021: 1-9). The most common issues affecting these employees are viruses as a source of physical workload, sustained tension as a psychological workload, and physical exertion as a source of physiological workload. The psychological workload was examined in greater detail by Secco *et al*. (2010:17), who alluded that the impact of exposure to pain and death, which apply to the context of Covid-19, where the fear of contamination, magnifies these effects.

Mininel *et al*. (2011:340), in turn, identified sources of psychological workload such as the fast pace of work, the lack of collective defence and the constant high demands for attention, all of which are amplified in a context of the pandemic. Understanding the dynamics of work burdens or demands and its peculiarities in the context of the global pandemic, is crucial for the formulation and execution of strategies and actions to preserve the health and well-being of nursing professionals whom are facing these global challenges. Future analysis of the impact of the global pandemic will allow for a reassessment of these reflections, readjustment of governmental policies and process and further additions to the disease related models for prevention and implementation.

3.6 SUMMARY OF THE CHAPTER

Overall, the Covid-19 pandemic has placed a significant burden on the health care system, mainly on nurses in the front-line. This crisis has dramatically affected the nurse's capacity to care and manage during emergencies. Resilience and adaptability are needed for a dynamic and rapidly changing environment like Critical Care Unit. The ERG theoretical framework as explained in this chapter, has demonstrated that each of its three constructs play a vital role in the psychosocial adaptation and resilience of a health care worker especially amidst crises. The next chapter will detail the research methodology utilised in this study

CHAPTER FOUR
RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The previous chapter described the selected theoretical framework to contextualise the study. This chapter focuses on the research methodology, describing the design, procedures, and tools employed to conduct the study. It also highlights the use of the ERG model to guide the study. A systematic approach towards resolving an issue is the crucial aspect of any research. It enables the researcher to identify specific tools and methods that will assist in achieving the desired outcomes of research (Saunders, Lewis and Thornhill 2016:110; McBurney and White 2009:150).Bryman and Bell (2015: 424) state that a logical approach enables researchers to be aware of the aim of the study and select data instruments which are appropriate to achieve the aim.

4.2 RESEARCH DESIGN

Research design is a blueprint for conducting any study and it maximises control over factors that can interfere with the study's desired outcome (Burns and Grove 2011: 509). The methodological design adopted for this study was qualitative research methods that were applied. Creswell (2014: 12) describes research design as inquiries within research approaches that provide specific direction for the procedures to be followed. A research design is an overall plan for addressing a research question, including specifications for enhancing the study's integrity (Polit and Beck 2017: 743).

A qualitative, exploratory design was followed in the current study to explore the psychosocial effects on foreign national Critical Care nurses caring for Covid-19 patients in the Critical Care Unit. A qualitative, explorative phenomenological design is particularly relevant to this study as this approach allowed engagement and interaction of the foreign national Critical Care nurses through interviews whilst striving for subjectivity. The phenomenological method focused on the experiences and feelings of participants and found shared patterns rather than individual

characteristics in the research subjects. This scientific approach guaranteed the authenticity of the collective experiences of participants whilst adhering to scientific standards. Any researcher undertaking a study of this nature must be open to and genuinely want to know the answer to the research questions and not merely to confirm their preconceptions about the phenomenon but to allow the phenomenon to reveal itself as it is. Gibson and Hanes (2003: 186) argue that five concepts are critical to conducting phenomenological research and in uncovering the essences of lived experience, namely openness, encounter, immediacy, uniqueness, and meaning. In a study that debated the use of phenomenology in research, Kleiman (2004: 9) revealed that by using phenomenological research, the researcher seeks to find the essence of the experience of a phenomenon. Therefore, the goal of the phenomenological researcher in this study was to uncover these essences or underlying themes of the meaning of these shared experiences of psychosocial effects of Covid-19 on foreign national Critical Care nurses in a Saudi Arabian Hospital.

4.3 PHILOSOPHICAL UNDERPINNING OF A PHENOMENOLOGICAL STUDY

Phenomenology, which examines the subjective human experience, has evolved as a philosophical context for nursing science inquiry and research methods. A primary assumption underlying phenomenology is that humans seek meaning from their experiences and the experiences of others. This meaning is interpreted through language and thus leads to a reality that is socially constructed rather than the reality that exists outside these meanings (Kleiman 2004: 9). The relationship between the researcher and research participant is seen as a 'subject to subject' interaction in which values and facts reside within each individual and cannot be separated (Gibson and Hanes 2003:182). The structure of phenomena is the significant findings of any descriptive phenomenological inquiry. This structure is based upon the various essential meanings present in the descriptions of the participants and is determined both by analysis and intuition (Kleiman 2004: 8). There are two main types of phenomenological frameworks used in nursing literature: the descriptive type, also known as the Husserlian type of phenomenology, and the interpretive type, also known as the Heideggerian type of phenomenology (Polit and Beck 2017:

786). These approaches add insight to the meaning of the phenomena under study but differ in their aim. Phenomenological studies begin with the importance of the participants' experiences of a phenomenon for which the researcher has a profound interest and commitment. The goal of the phenomenological researcher in this study is to uncover these essences or underlying themes of the meaning of these shared experiences of Covid-19 and the influence on foreign national Critical Care nurses. In the context of this study, a descriptive phenomenological approach was used, which involved a search for the meaning of the experience of the participants and thus provided a foundation from which to build an understanding of what it is like to be a foreign national Critical Care nurse caring for Covid-19 patients.

The researcher also contends that using a descriptive approach of phenomenological methodology can augment and expand what is known about Covid-19 and its influence on nurses in a critical care environment. Therefore, the interviewees and the descriptions of their experiences should be instantly recognisable, expanding and enriching the store of knowledge about the living world. It must be noted, however, that researchers can never totally step out of their own implicit pre-understandings and interpretations of the phenomenon. Therefore, pure description and knowledge, free of the researcher's own perspective and involvement in the life world, are impossible (Gibson and Hanes 2003: 186).

Polit and Beck (2017: 785) asserted that humans have intentionality and will see something as something when it presents itself. However, the researcher acknowledged and consciously set aside or bracketed her own pre-understandings and focus on the description of the experience from the perspective of the participants in their own voices rather than via interpretation (Aspers 2004:11). In this study, this was done by ensuring that the four steps of a descriptive phenomenological study were maintained as follows:

4.3.1 Bracketing
The researcher brackets out any preconceptions and opinions they might have about the phenomena under study. This is done to avoid any researcher bias. This aspect

is sometimes called phenomenological reduction (Polit and Hungler 2008: 247). In the context of this research, despite having countless experiences with critically-ill infectious patients as a foreign national Critical Care nurse, the researcher ensured that each interview was entered into with a clear and open mind-set so that due consideration was given to interviewees' experiences without any prejudices or preconceived opinions (Polit and Beck 2017: 784).

4.3.2 Intuiting

This occurs when researchers remain open to the meanings attributed to the phenomena by those who have experienced it, resulting in a common understanding of the phenomena under study. In this study, the researcher ensured that only responses from participants were taken into consideration. No personal viewpoints of the researcher were put forward to the interviewee (Polit and Beck 2017: 785).

4.3.3 Analysing

This occurs when the gathered data is coded or categorised to make sense of the essential meanings of the phenomenon, at the same time allowing common themes to emerge. With this thematic approach, the researcher was able to sift the common ideas or concepts that emerged from the respondents and thereafter develop them into the major theme and then sub-themes (Polit and Beck 2008: 228).

4.3.4 Describing

This is the final phase, where the researcher comes to understand and define the phenomenon. The aims here are to communicate and to offer distinct, critical descriptions in both written and verbal form. The researcher was able to correlate literature searches with a discussion of the findings after an analysis of findings (Polit and Beck 2017: 784)

4.4 CRITERIA FOR CONDUCTING PHENOMENOLOGICAL RESEARCH

Qualitative research is an inductive research approach and gives attention to the social context in which the research takes place. It tries to discover, describe and

understand the social reality from the perspective of the participants. Thus the data gathering is flexible and may be constantly revised during the data gathering process (Raiman, Weaver and Arrington 2016, 267). Any researcher undertaking a study of this nature must be open to and truly want to know the answer to the question, not merely to confirm their preconceptions about the phenomenon but to allow the phenomenon to reveal itself as it is. Gibson and Hanes (2003: 186) argue that five concepts are critical to conducting phenomenological research and in uncovering the essences of lived experience, namely: openness; encounter; immediacy; uniqueness and meaning. These concepts are explained as follows:

4.4.1 Openness

Openness refers to the researcher's ability to be receptive, sensitive and willing to understand how the phenomenon reveals itself. The researcher must be able to ask true phenomenological questions but at the same time withhold their own assumptions of the answers.

4.4.2 Encounter

The goal within the encounter is inter-subjectivity or being with the participant throughout the research interview. The encounter is the balance between the researcher's goals of developing new knowledge and ethical concern for the research participant. As a result, of this coming together or 'being with' of the researcher and interviewee in the research interview, the interviewee feels more comfortable in describing the experience, leading to more concrete and accurate descriptions of the phenomenon under investigation.

4.4.3 Immediacy

This concept was described as being present and engaging with the participant throughout the research relationship, which establishes a level of trust and intimacy. Immediacy reflects the immersion of the researcher in the phenomenon being studied while maintaining enough distance to be aware of oneself and of the interview's purposes and process.

4.4.4 Uniqueness

Uniqueness refers to the researcher's acknowledgement and acceptance of the individuality of each participant while simultaneously looking for the essences that are common to all. As a research methodology, phenomenology focuses on finding the essence of the phenomenon rather than the essence of a singular experience. While interviewing, therefore, it is important to take the uniqueness of each interviewee into consideration as well as his or her unique experience of the phenomenon while searching for the underlying themes of meaning that flow through the experience of all of the interviewees.

4.4.5 Meaning

The fifth concept lies within the individual. The researcher must create an atmosphere in which the individual can reflect on a concrete experience and assign meaning to that experience. The researcher then must uncover the essence of the meaning in the experience being studied.

4.5 RATIONALE FOR USING THE PHENOMENOLOGICAL METHOD FOR ENQUIRY AND ANALYSIS

The flexibility of phenomenological research and the adaptability of its methods of inquiry is one of its greatest strengths. A phenomenological analysis does not aim to explain or discover the actual causes. Instead, its goal or objective is to clarify the meanings of such phenomena from lived experiences. Phenomenology, when practiced within a human science perspective, can thus result from invaluable knowledge about individuals' experiences (Raiman, Weaver and Arrington 2015, 267). The phenomenology approach differs from other approaches due to its emphasis and focuses on the participants' experiences. This means the focus is rather than just on a description of their observed behaviours or actions. This highlights the subjective aspects of human activities by focusing on the meaning rather than the measurements of the various social phenomena. The descriptive phenomenological research methods used in this study attempted to uncover the

underlying essence and meanings of experiences to arrive at a deeper understanding. Polit and Hungler (2004: 246) define this concept by simply stating that it is an approach to thinking about what the life experiences of people would be like.

4.6 SETTING AND PERMISSION TO CONDUCT INTERVIEWS

The study was only commenced after the study design and procedures had been approved by the university Faculty Research Committee (FRC) and only when the Hospital Director of the Saudi Arabian Hospital management had approved that the study be conducted in their facilities. Permission was granted and approved in principle (See Appendix A and B). According to Polit and Beck (2017: 744), a research study setting is a location where the study is being conducted. The hospital is funded by the government and is referred to as the Military hospital and is managed and governed by the Military Services Department of Saudi Arabia. The hospital is situated in the Southern region of Saudi Arabia.

The overall responsibility for the Critical Care Unit is managed by the Clinical Director of Anaesthesiology and his team of experts. The patients that are ventilated are managed and given nursing care by the nurses; however, the monitors and the ventilators are managed by the respiratory care unit technician. The study hospital is accredited by the Joint Commission International (JCI), and the sustaining of safe patient care delivery is critical within this organisation, particularly in the ICUs (JCI 2016: 10). The hospital under study has a bed capacity of one thousand beds which includes a total of ninety-three beds allocated to ICUs. A total of 25 beds in the main ICU is allocated for Covid-19 patients, which are all single isolation rooms. These 25 beds are allocated as per patient's conditions for acute cases and for recovery cases. A total of 8 beds were allocated for critically-ill Covid-19 patients on full ventilation, six beds for patients on high-flow oxygen requirement and eleven beds for patients post-extubation and patients on recovery phase post-ICU. For the purposes of confidentiality, the hospital names will be anonymous. This study was conducted in the main Critical Care Unit of the Main Hospital, which is a total of 25 beds that were specifically allocated for Covid-19 patients. These settings were chosen as the Covid-19 pandemic impacted significantly in these areas and during

the lockdown period whereby these areas were classified as Covid "hotspots" due to the soaring infection rates. The interviews were scheduled so that they were conducted at the time and convenience of the healthcare service and the participants.

4.7 POPULATION

The term population refers to the entire group of people (N) who meet the criteria for inclusion (Brink, Van der Walt and Van Rensberg 2018: 123). In this study, the target population were foreign national Critical Care nurses (N=10) working in the Covid-19 Critical Care Units at the Saudi Arabian Hospital. Keeping in mind that the sample size of a qualitative study cannot be predetermined and it will depend on the availability of nurses who met the inclusion criteria and gave voluntary consent. The population, also referred to as the target population, is all elements, individuals, objects or substances which meets the specific criteria to be included in the study (Grove, Burns and Gray 2012: 44). There are approximately 2000 nurses currently working in the hospital where the study was conducted. Of these nurses, 220 are Saudi Arabian nationals, with the remaining nurses comprising predominantly foreign nationals of other nationalities.

Of the total population, there are 200 foreign national nurses working in the various ICUs within the study setting. Of the 200 only 20 nurses are working in the Covid-19 Critical Care Unit and a total of 10 foreign national Critical Care nurses constituted the total population of the current study and met the inclusion criteria. This included males and females of all nationalities with two years' experience within the Covid-19 critical care environment and who had been employed within this organisation for more than two years. There were no restrictions with respect to demographic characteristics of nurses such as age, gender or religion. The main stipulation for being included within the study was that the nurses needed to be ICU trained or experienced and currently working in the Covid-19 Critical Care Units, in addition to being available at the time of the study and possess a valid Saudi Council Registration to practice in this environment as a Registered Nurse.

4.8 SAMPLING PROCESS

Sampling refers to the process of selecting a portion of the population that conforms to a designated set of specifications to be studied. A sample is a subset of a population selected to participate in the study (Polit and Beck 2017: 46). Purposive sampling refers to the selection of sites or participants that will best benefit the study (Polit and Beck 2017: 493). The purposive sampling method was used to select all foreign national Critical Care nurses who have been rendering direct patient-care to Covid-19 patients during the pandemic in the selected respective Covid-19 Saudi Arabian Critical Care Units of the participating hospital.

4.8.1 Inclusion criteria

- All foreign national Critical Care nurses that were directly involved in caring for Covid-19 patients in the designated Covid-19 Critical Care Unit in the Saudi Arabian Hospital.
- Participants who have been allocated to the Covid- ICU post critical care cross-training for a period of 6 months.
- Participants who understood English as the country's primary language is Arabic, and the majority of the foreign national nurses use English as their first language.

4.8.2 Exclusion criteria

- Nurses who were employed within the designated Covid-19 ICUs less than three months as these nurses were still on orientation and worked under preceptors in the Critical Care Unit.
- Student nurses on internship programmes and those on secondment from the universities as they were not directly involved in patient-care.
- All participants who did not understand English.

4.9 PRE- TEST

A pre-test was conducted for the purpose of the study before the commencement of the main study to establish the reliability and validity of data collection instruments.

The pre-test was also used to identify whether there was a need to refine the methodology or the data collection processes. It was conducted in the same setting as the main study, using the same data collection and analysis techniques. The pre-test study was conducted with five homogeneous participants made up of nurses working outside the ICUs to determine the clarity and effectiveness of the interview questions and the average time required to complete the interview and data collection methods. The pre-testing study participants were asked to comment on the applicability and validity of the interview questions about the healthcare sector in the Saudi Arabian context. According to Sekaran (2013: 138-141), the purpose of a pre-testing study is to refine the questionnaire to ensure there is no ambiguity or bias. For this study, five homogeneous participants, who were not part of the inclusion sample, were randomly selected to participate in the pre-test. Overall the feedback from the participants were that the questions were clear, concise and relevant to the subject. There were no changes to the proposed interview schedule of questions as participants indicated that they were very simple to understand during the interview.

4.10 DATA COLLECTION

To gain a full understanding of the lived experiences of foreign national Critical Care nurses with Covid-19 critically-ill patients and their well-being, a method of qualitative data gathering was employed. Informed consent included an explanation of the handling of all interview materials, confidentiality issues and anonymity procedures for participants and the option to withdraw at any time. Once informed consent was obtained, all interviews were recorded with participants' permission, by audiotape to provide an unobtrusive and accurate record of the participants' comments. The in-depth semi-structured interviews were conducted with the use of an interview guide containing demographic sections as well as a central question to focus the discussion. Probing questions were used to elicit more information (See Appendix E). Probing is eliciting more useful information from a respondent in an interview that was volunteered in the first reply, with the goal being to ask questions that give the respondent an opportunity to provide rich, detailed information about the phenomenon under study (Polit and Beck 2017: 788). The purpose of interviewing was also to understand the essence, meaning and values that participants attributed

to the phenomena under study. Interviews were scheduled for twenty-five to thirty minutes for each participant. If no common themes emerged in the initial set of scheduled interviews, additional interviews would have been conducted until saturation of key themes occurred. However, during the ten interviews, similar information and common themes emerged. Data saturation was reached after interviewing ten foreign national Critical Care nurses as no new information emerged. So, no additional interviews were arranged. Transcribed recordings of interviews and written notes will be kept safe for a period of five years and thereafter will be destroyed. As noted before, the interview was the method of data collection, and for the purposes of this research, a face-to-face interview was conducted with the foreign national Critical Care nurses.

4.11 DATA ANALYSIS

Giorgi's four steps approach for data analysis was used to identify the various themes regarding the experiences of Covid-19 and influence on foreign national Critical Care nurses. The aim of data analysis in this study was to identify commonalities and differences in the individual experiences of all participants. The goal was to keep the richness of the experiences that each participant had with the Covid-19 patients that they cared for whilst exploring the descriptive meanings of such experiences through the identification of essential themes (Polit and Beck 2017: 784). The first step in using Giorgi's method in this research was to read and re-read the entire set of participants' experiences in order to familiarise the research with the contents and get a sense of the whole picture of the phenomena under discussion. This method helped and guided the researcher to understand the meaning of the experience from the participants' viewpoints and not in terms of the researcher's theory about the topic under study. This first step also served as grounding for the next step.

The second step involved reading each successive transcript thoroughly and breaking each down into distinct meaning units. Meaning units consisted of words, phrases, sentences or passages and were then coded by the researcher to ensure accuracy and completeness. After the whole description of the phenomena under

study had been broken down and divided into meaningful units, the researcher then reflected on these units in the context of the whole experience or phenomena under study. This was done so that the true essence and meaning of the foreign national Critical Care nurses' experiences with Covid-19 patients about their well-being would not be lost during the data analysis process.

The third step using Giorgi's analytical method was to transform participants' words into scientific terms. This was done by re-describing the meaning units into psychological language, and this was accomplished by searching for essential or dominating meanings in each unit. The researcher then related each meaning unit to the topic under study. This again was done so that the meaning of the participants' experience was not changed, but at the same time, unimportant meanings in the participants' experience or situation were discarded.

The final step was to involve the synthesis of the transformed meaning units into an overall description of Covid-19 patients and influence on their well-being as experienced by the foreign national Critical Care nurses. This the researcher did by consistently describing this phenomenon and adding a psycho-analytical approach to the obtained data. The researcher then attempted a general analysis by focusing on the essential aspects and characteristics of the phenomena under study. By providing descriptions and then analysing these meaning units, the researcher was able to draw individual and subjective meanings of all participants, relating to their experiences during care of Covid-19 patients and influence on their well-being.

4.12 TRUSTWORTHINESS

According to Polit and Beck (2017: 785), researchers want their findings to reflect the truth. Research that is inaccurate or holds a biased viewpoint cannot be of any benefit to nursing practice. The nature of this study being a qualitative design, methods of enhancing trustworthiness were utilised, and the following four principles outlined by Guba's strategies of credibility, transferability, dependability and confirmability were applied (Lincoln and Guba 1985).

4.12.1 Credibility

Credibility was achieved through the accuracy of the descriptions of the parameters of the study such as who, where and when. Participants were purposively sampled. The information was probed until data was saturated to ensure the credibility of the study. This also ensured that there would be confidence that there was truth in the collected data and truth in the way the data was interpreted by the researcher so that all research results were reflected in a believable way.

4.12.2 Transferability

Transferability refers to the generalisation of the data or the extent to which this data can be applied to other settings or sample populations (Polit and Beck, 2008: 202). In this study, this was achieved through a thick description of data and purposive sampling. Transferability was also promoted in this study by ensuring that there was an adequate amount of data collected to provide evidence of research findings in this study.

4.12.3 Dependability

Dependability refers to evidence that is consistent and stable (Polit and Beck 2008: 196). In this study, this was achieved by a description of the method of data gathering, data analysis and interpretation. In order to enhance the consistency, the researcher conducted a pre-test with one participant prior to the study. This participants did not participate in the main study.

4.12.4 Confirmability

Polit and Beck (2017: 786) maintain that confirmability is similar to objectivity in that the study results are derived from participation information related to the context of the study. Researcher biases do not have a place in the study. Within the context of this study, tape recordings, as well as field notes, increased the confirmability of the research. The tape recordings, transcriptions and field notes were preserved for future auditing.

4.13 ETHICAL CONSIDERATION

Before the commencement of the actual study, ethical clearance was obtained from the university Faculty Research Committee (See Appendix A). Written consent was obtained from the Hospital Director of the participating hospital (See Appendix B). All the participants made an informed, voluntary decision to participate in the study. This included the nature of the study, the right to refuse to participate, the risks as well as the benefits that were fully described to them (See Appendix D). The researcher personally approached registered nurses who were either trained in ICU nursing or experienced in ICU nursing in order to get written and informed consent from them.

4.13.1 Beneficence

Polit and Beck (2017: 784) maintain that beneficence basically stresses that the researcher has to minimise any harm to subjects or society as a whole. Instead, the researcher and research findings should benefit the participants or individuals that are part of a study. The aim of this study was to ensure that the findings create awareness and to provide ongoing foreign national Critical Care nurse support in the area of coping with the Covid-19 pandemic and their mental well-being. One of the consequences of participating in a study of this nature was the sensitivity of the various concepts discussed under the topic of mental well-being and coping during the Covid-19 pandemic. For example, participants were asked questions about their personal views and weaknesses. The very use of probing by the researcher in order to get the participant to elaborate on certain aspects did at times mean that the participants became highly emotional.

During the interviews and discussion with participants, a certain amount of distress was evoked concerning issues of health and well-being, and as a result, a lot of mental anguish and deep-seated anger seemed to arise from the pent up emotions that participants appeared to harbour when they related their work experiences during the Covid-19 pandemic to their own personal experiences of the same situations. The personal concern of not being able to be with loved ones due to travel restrictions and the fear of the disease seemed to trigger emotional outbursts and

episodes of crying whilst being interviewed. This resulted in debriefing sessions being held after the interviews by the interviewer.

4.13.2 Respect for Human Dignity

This principle involves the right to self-determination and the right to full disclosure (Polit and Beck 2017: 785). In this study, this meant that participants could choose to participate or not. They had the right to ask questions, to refuse to give information or to withdraw from the study at any time. None of the participants were asked to perform any acts or make statements that would cause discomfort, compromise them, diminish their self-esteem or cause them to experience embarrassment. There was also no risk of damage to their financial or social standing.

4.13.3 Justice

This principle included the participants' right to fair treatment and their right to privacy (Polit and Beck 2017: 784). The researcher ensured that the study participants met all the inclusion criteria or research requirements. All due respect was shown to participants' beliefs, values, morals, culture, lifestyle and opinions. A courteous, tactful and careful line of questioning was used by the researcher at all times during data collection. Privacy was maintained throughout the study, and participants were assured that the data they provided was going to be kept in strictest confidence. Neither the names of the hospitals or the participants were disclosed. Interview data would be kept for five years and thereafter would be destroyed.

4.14 STRENGTHS AND LIMITATIONS

This study focused on a fundamental phenomenon (Covid-19 and well-being) in foreign national critical care nursing. The views of the participants concerning the thoughts and feelings of a Critical Care nurse coping during the Covid-19 pandemic in the constant face of fear and anxiety with an apparent lack of knowledge or scientific understanding of the virus or support structures were documented and made known during the interviews. The fact that the researcher was a Critical Care trained professional nurse with vast amounts of experience with critically ill-patients and infectious issues in an ICU would influence the research process, content and

findings. It was hoped that the researcher's integrity, honesty and commitment would influence the leadership within the organisation of the sciences and the profession to take steps to focus on and alleviate the stumbling blocks that promote ineffective coping skills of foreign national Critical Care nurses with such pandemics in the future.

4.15 SUMMARY OF THE CHAPTER

Using this research methodology, the researcher was unable to anticipate how the study was going to evolve. Much of the research design appeared to come about during the data collection and analysis process. It was also found that using the phenomenological approach in this study helped the researcher examine the human experience based on the descriptions provided by the persons involved and what meanings these descriptions held for them alone. Polit and Beck (2017: 784) argue that qualitative analysis of data can be both challenging and labour intensive at times. However, if it is guided by the researcher's approach to phenomenological data analysis, common patterns or themes of experiences emerge. Raiman, Weaver and Arrington (2016: 267) state that themes are recurring patterns of meaning and are likely to identify both a matter that concerned the participant and the meaning that this matter of concern conveyed to the participant. Such themes did appear to emerge in this study and provided rich insight into participants' experiences, and highlighted similarities and contrasts amongst the viewpoints of the different participants. This chapter described and discussed the research methodology used in this study. The next chapter will therefore present the results of the study in question and highlight the common themes, as they were identified from participants' responses and summarised by the researcher. Evidence will also be presented to back up the generated themes and will be underpinned by quotes from the transcribed data of the actual interviews.

CHAPTER FIVE

PRESENTATION OF FINDINGS

5.1 INTRODUCTION

In Chapter Four, the research methodology was discussed. This chapter presents research findings derived from the data collected on the study topic by employing a qualitative approach. The qualitative data findings after analysis were aligned to the aim of this study which was to explore the psychosocial effects of the Covid-19 pandemic on Saudi Arabian foreign national Critical Care nurses. This study was further carried out using a phenomenological exploratory approach.

The following research questions had to be answered to achieve the aim of the study:

- What are the various psychosocial effects on foreign national Critical Care nurses whilst caring for Covid-19 patients in a Saudi Arabian hospital?
- How has the Covid-19 pandemic influenced the foreign national Critical Care nurses in relation to environmental factors and behavioural factors in the Critical Care Unit?

5.2 SAMPLE REALISATION

The study units, number of interviews and participants, are discussed in the ensuing sections. Only the Covid-19 Critical Care Unit in the Armed Forces Hospital, Southern Region was included in the study. The participants were coded in numbers from number one to number ten (No.1 to No.10) for the interview process. Coding for the qualitative phase of the data collection included categorising respondents according to the Covid-19 Critical Care Unit that they worked in. These units are part of the General hospital and part of an established Military hospital group managed by the Military of Saudi Arabia and regulated by the by-laws of the Medical Directorate Services. This data collection process, saw a total of 10 participants being interviewed (Table 5.1).

Table 5.1 Total number of participants from the Covid-19 Critical Care Unit during the Qualitative Data Collection

UNITS	TOTAL PARTICIPANTS
COMBINED UNITS	
Covid-19 Critical Care Unit Adult and Paediatric unit	10

The number of interviews conducted in each study site was guided by data saturation. A total of 10 interviews were conducted over a period of two weeks.

5.3. PRESENTATION OF THE FINDINGS

The presentation of the results for the study was guided by the principles of Alderfer's ERG model. Presentation of the participants' demographic data and the findings were related to the psychosocial factors within the Covid-19 critical care environment, which were aligned with the objectives of the study.

5.3.1 Demographic data of the participants

A total of ten participants were interviewed from the Covid-19 Critical Care Units within the Armed Forces Hospital, Southern Region under study. These participants were all foreign national nursing staff, working in the Covid-19 Critical Care Unit of the sample hospitals. Six (6) of the participants were female and four (4) were male. Two (2) of the participants were between the ages of 41 and 50 years old, seven (7) were between the 31 and 40 age group, one (1) was between the ages of 21 and 30.The experience levels measured in the years of service in the nursing profession, and ranged as follows: Nine (9) participants had between five-ten-years   experience and one (1) between 11-20 years. The designations of participants were foreign national Critical Care nurses who were involved in direct patient-care. The participants were selected from the designated Covid-19 critical care specialisations including adult and paediatrics, to gain a better understanding of the psychosocial effects of the Covid-19 pandemic on Saudi Arabian foreign national Critical Care nurses, in a wider context. It will also inform recommendations for the development of a managerial support framework

that explicates motivational factors, human needs and, professional and growth opportunities on nurses' psychosocial influences within the Covid-19 critical care environment. The demographic data of the interviewed participants is depicted in Table 5.2.

Table 5.2: Demographic data of the interviewed participants (P) (n=10)

P	Age in years	Gender	Highest Level of Education	Employment Status	Units Allocated Covid-19	Country of Origin	Experience in Current Position
1	31-40	Male	Degree	Contract Programme	Adult General ICU	India	7 years and 3 months
2	31-40	Male	Degree	Contract Programme	Adult General ICU	India	5 years and 7 months
3	31-40	Female	Degree/Diploma/Masters	Contract Programme	Adult General ICU	Malaysia	5 years
4	41-50	Female	Degree	Contract Programme	Cardiac ICU	Philippines	10 years
5	31-40	Female	Degree	Contract Programme	Adult General ICU	Philippines	7 years
6	41-50	Female	Degree	Contract Programme	Adult General ICU	Philippines	14 years and 4 months
7	31-40	Female	Degree	Contract Programme	Adult General ICU	Philippines	7 years and 11 months
8	21-30	Male	Degree	Contract Programme	Adult General ICU	Philippines	5 years and 4 months
9	31-40	Female	Diploma	Contract Programme	Adult General ICU	India	6 years and 6 months
10	31-40	Male	Degree	Contract Programme	Adult General ICU	Philippines	5 years and 4 months

The qualifications of the interviewed participants are depicted in Table 5.3.

Table 5.3: Foreign National Nursing qualifications of the interviewed participants (P) (n=10)

P	Registered Nurse: Bachelors BSC	Licensed Practical Nurse: Diploma	Masters Nursing Science: MSC	Doctorate in Nursing: PhD	Post Basic: ICU
1	x				
2	x				x
3	X		x		
4	x				x
5	X				
6	x				
7	x				x
8	x				
9		x			
10	x				x

5.3.2 Areas of specialisation in the qualitative phase

The participants who met the inclusion criteria from the interviews were from the Covid-19 Adult and Paediatric Critical Care Units as illustrated in Table 5.1. The overall results of the qualitative study indicated that all participants were working in the Covid-19 critical care designated units during the pandemic surge. The interview participants' qualifications also formed part of the demographics n=10. One hundred percent (100%) of the participants were working in the Covid-19 Critical Care Unit. Of the ten (10) participants, only one (1) was a Licensed Practical Nurses (LPN) which equates to a Diploma in Nursing Science and the other ninety nine percent (99%) were in possession of a Registered Nurse License (RGN) which equates to a Nursing degree. In the analysis, one (1) participant possessed a Diploma and nine (9), a Nursing degree. Over and above

these qualifications, four (4) of the participants possessed other qualifications which included Critical Care Nursing Science and this included postgraduate nursing qualifications. The data clearly showed that the total of six (6) nurses who participated in the interviews did not possess any qualification in critical care but have years of clinical experience in this specialised field of nursing critically ill patients. The qualifications of the participants are illustrated in Table 5.3.

5.4 THEMES AND SUBTHEMES

Six (6) major themes emerged during the analysis of the findings. The sub-themes are presented against each major theme in Table 5.4. Major themes included the following:

1. Resource challenges influencing job satisfaction of nurses

2. Staff motivation and its influence on work performance whilst caring for Covid -19 patients

3. Behavioural factors affecting group cohesion teamwork amongst staff working in a Covid-19 Critical Care Unit

4. Increase in workload and resultant emotional exhaustion of staff.

5. Existence, safety, and psychosocial needs of staff in the Covid-19 unit.

6. Altered growth needs, self-esteem and self-actualisation of staff whilst being exposed to Covid-19 patients

Table 5.4: Themes and sub-themes that emerged from the Interviews

Major themes	Sub-themes
Theme 1: Resource challenges influencing job satisfaction of nurses	1.1 Nurse-patient ratios during work allocation. 1.2 Shortage of skilled competent Critical Care nurses. 1.3 Shortage of PPE,medical and surgical supplies in the Covid-19 Units 1.4 Cross-training of nurses from other units to cope with the surge of the pandemic 1.5 High turnover of foreign national Critical Care nurses during the pandemic
Theme 2: Staff motivation and its	2.1 Emotional support from leaders and line managers

influence on work performance whilst caring for Covid-19 patients	2.2 Team work and positive team spirit
	2.3 Acknowledgment for work performance
	2.4 Supportive and safe organisational working conditions
Theme 3: Behavioural factors affecting group cohesion and teamwork amongst staff working in a Covid-19 Critical Care Unit	3.1 Social stigma in the context of health during the Covid 19 pandemic
	3.2 Psychosocial barriers to teamwork and group cohesion.
	3.3 Human respect and value systems in the workplace
	3.4 Isolation due to being labelled and discriminated against
Theme 4: Increase in workload and resultant emotional exhaustion of staff	4.1 Sleep deprivation and its influence on emotional exhaustion.
	4.2 Fatigue and distress and their influence on emotional exhaustion.
	4.3 Work life balance and its influence on emotional exhaustion
Theme 5: Existence, safety, and psychosocial needs of staff in the Covid-19 unit	5.1 Health and safety of working environment.
	5.2 Lack of Existence needs during Covid-19
	5.3 Physiological and psychological factors experienced during Covid-19
	5.4 Lack of sense of belongingness
	5.5 Fear and anxiety during Covid-19 exposure.
Theme 6: Growth needs, self-esteem and self-actualisation whilst being exposed to Covid-19 patients	6.1 Professional growth and development
	6.2 Low self esteem
	6.3 Lack of self-actualisation

In the presentation of the findings, the themes and sub-themes are supported with verbatim statements from the participants to substantiate their relevance in the results. All foreign national critical care nursing staff were interviewed in English as this is the spoken language at work. Excerpts of interviews that have been included in this chapter to support the themes are from the original transcripts of interviews. The only alterations have been the inclusion of punctuation such as full stops, commas, question marks to make the participants' quotes more understandable and logical. This approach was used by the researcher to present the participants' descriptions accurately while maintaining integrity of the data.

5.5 PRESENTATION OF FINDINGS WITH THEMES AND SUB THEMES

5.5.1 Major theme 1: Resource challenges influencing job satisfaction of nurses

When participants were asked about the human resources and material management concerns in the critical care Covid-19 unit, some of the participants expressed their unconscious prejudices towards the current staffing concerns during the pandemic and shortage of PPE during the first wave of the disease and rapid spread. The Covid-19 pandemic posed substantive challenges to health systems globally, balancing additional service delivery needs required to manage the pandemic while preserving and enhancing access to essential health services. Critical Care nurses are both a central component of the pandemic response and among those most vulnerable to infection and mental health impacts due to their professional exposure. Low staffing levels, particularly nurse to patient ratios, are themselves associated with the spread of pathogens in healthcare settings and risk of outbreaks. The remuneration factors was amongst the many factors that was raised by the participants in general and they believed they should be commensurate with duties performed and working hours as a form of retention. Additional allowances may be required to compensate for higher Covid-19 workload and risks and to minimise attrition. The general feedback from all participants related to this question revealed common factors of staff shortage and shortage of PPE during the first wave of the pandemic in the Critical Care Unit.

The six sub-themes that emerged under this major theme during the interview were:

Sub-theme 1.1: Nurse patient ratios decreased during work allocation due to surge of Covid-19 patients

Sub-theme 1.2: Shortage of skilled competent Critical Care nurses with recruitment on hold due to lockdown

Sub-theme 1.3: Shortage of PPE and surgical supplies during the pandemic

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Sub-theme 1.4: Cross training of nurses from other units to cope with the surge during the pandemic

Sub-theme 1.5: High turnover of foreign national Critical Care Nurses during the pandemic

Sub-theme 1.1 Nurse-patient ratios decreased due to demand and supply in the Critical Care Unit during the Covid-19 pandemic

During probing, the participants were asked how they managed with the human resources and the materials during the Covid-19 pandemic in their Critical Care Units. The majority of the participants raised issues about increased nurse - patient ratios and increase in the work demand and supply. The participants also highlighted shortage of PPE during the first wave of the Covid-19 pandemic, but noted an improvement in subsequent waves, as stated in the following excerpts:

We experienced everyday shortage of staff and the staff that came to help could not manage the patients although they were cross trained. The high admission rate increased the nurse patient ratios, at times I took 3 patients which included 2 ventilated and 1 non ventilated and this was not safe. (Participant 6, Female).

*Well, getting staff has been difficult as the practices of recruitment and hiring from other countries decreased or not permitted due to the Covid-19 pandemic, which made us feel like we are helpless while giving the exact patient demands of care and this increased our workload, our day to day…. on a day-to-day basis. (*Participant 2, Male).

It was tough in terms of material management due to financial issues and availability of PPE in the marketplace at the time of the first wave…… And human resources staff prefers to end their contract because of fear of their life…….. The hiring process was long because

*of, pandemic which caused locked down and new staff could not arrive as most of our staff are foreign nationals. (*Participant 5, Female).

…..some staff prefers to end their contract because of fear of being infected and losing their life. And also, the hiring process was long because of the pandemic and flight restrictions to recruit foreign national nurses. (Participant 3, Female).

Sub-theme 1.2 Shortage of skilled competent Critical Care Nurses, with recruitment on hold due to lockdown.

While hiring has stalled overall, essential sectors have experienced a surge in demand, and job postings in these sectors are increasing. Meeting this demand at a time when job interviews are difficult to hold and training can only be done online, poses a challenge. Participants expressed their concerns as the problem was compounded by flight closures due to Covid-19. Majority of the participants appreciated the rapid retraining and job matching efforts implemented in the immediate response to the Covid-19 crisis and provided insights for redeploying and retraining and cross-training nurses from other non-specialised units in the medium-term recovery phase. However many of the participants expressed their concerns that the short training of the Covid-19 Critical Care "crash" course which was a blended learning program that provided the knowledge and skills for nurses to care for the patients with Covid-19 respiratory symptoms, was insufficient. Participants were very concerned about the medical errors, patient safety and quality of patient-care during the surge of infected patients. Majority of the participants recommended that maintaining sufficient staffing requirements during the pandemic was also necessary to maintain a safe work environment and quality patient care. The following excerpts are evidence of participants concerns:

*The first issues, when the starting of the Covid-19 situation, the first issues was the safety issues……. So, the safety issues were the concerns about nurses who were cross trained but also scared to work in the critical care Covid-19 unit and this created more work for us experienced nurses. (*Participant 1, Male*).*

*We have opened, extra beds to care for Covid-19 patients and not adequate competent and skilled nurses and low nurse patient ratio …..we sometimes had to take 3 ventilated patients and this was not safe during the surge of Covid-19 patients in the unit. (*Participant 4, Female).

Sub-theme 1.3 Shortage of PPE and surgical supplies during the pandemic

Healthcare workers rely on personal protective equipment to protect themselves and their patients from being infected and infecting others. But shortages were leaving doctors, nurses and other frontline workers dangerously ill-equipped to care for Covid-19 patients, due to limited access to supplies such as gloves, medical masks, respirators, goggles, face shields, gowns, and aprons. Participants in this study expressed their concerns about constant supplies shortages and inadequate secure supply chains and felt that they were at high risk as healthcare workers. Some participants verbalised that the organisation and government had to act quickly to boost supplies, ease export restrictions and put safety measures in place.

The concerns raised during the interviews were related to shortage and the quality and quantity of the supplies and PPE. Participants also expressed that supplies can take months to arrive and market manipulation was widespread, with stocks running low as the surge increased. Participants also feared the virus and stated that PPE for healthcare workers was a key component of infection prevention and control and organisations should ensure that healthcare workers are protected as stated in the following excerpts.

For material-wise for example as PPE, we did experience with the first wave many challenges and then fortunately we have been continuously receiving PPE….. In the unit. However…… in my opinion, the quantity and the quality of the resources that has been delivered to us should have been improved in order for us to feel safe... and did not make us feel safe. Due to this many….. Of us nurses became infected with the virus. This experience was very frightening for us foreign nurses. (Participant 3, Female*).*

*It was tough…..of material management due to financial issues and availability of PPE in the marketplace. During the first wave the quality and quantity of the supplies….were not sufficient and poor quality. But by the second wave we are lucky enough that the administration provided the PPE and surgical supplies. The PAPR helmets…. not available and by the second wave we had sufficient stock and felt a bit safe (*Participant 5, Female*).*

Sub-theme 1.4 Cross training of nurses from other units to cope with the surge during the pandemic

As hospitals prepared for the Covid-19 surge, nurse leadership has been working non-stop to ensure the hospital has a robust staffing model to handle the increased need for Critical Care nurses. In mid-March 2020, Nursing Education leaders launched an immersive training experience for ambulatory and peri-operative nurses to help care for Covid-19 patients. Nursing education departments put together an intense training program with simulated skills stations within the critical care locations. Many of the participants appreciated this venture from the nursing leadership and education however the training was not tailored to meet each nurse's learning needs for the Critical Care Unit. They added that they needed more clinical exposure especially with the ventilators as there were

challenges due to knowledge deficit with the critically-ill patients as stated in the following excerpts:

With regards with the human resources ….. Cross training given to others from the non-critical areas…on how to take care of Covid-19 patients……. So with this training through the nursing education it adds to the workforce…. This helped but nurses feared the critically ill patients and scared to work with ventilated patients. They lacked the skills and also fear becoming infected. This caused more strain on the experienced nurse's because we had to nurture them all the time especially the critically ill Covid-19 patients. Participant 6, Female).

One challenge…. even in other healthcare systems is with the staffing helping in the Critical Care Units from other units. This is because some of the staff are afraid actually and were floated to the critical area……. because of the fear and anxiety brought by the disease wherein they can get infected…. We appreciated the cross trained nurses but felt sorry for them…. because they were so fearful of the ill patients and all the monitors and ….The cross trained nurses could not deal with the mortality rate win the Covid-19 unit. (Participant 7, Female*).*

Sub-theme 1.5 High turnover of foreign national Critical Care Nurses during the pandemic

The nursing profession is considered to be a stressful and emotionally demanding profession; nurses in their everyday practice are dealing with various stressors, such as critical situations, workload, grief and death. The participants expressed that the nursing profession was considered to be a stressful and emotionally demanding profession and nurses in their everyday practice are dealing with various stressors, such as critical situations, workload, grief and death and this constant exposure to stress and impacted nurses' personal and professional lives.

Participants raised concerns that they were exposed to various stressors and not satisfied with their profession or the provision of low-quality care and were experiencing secondary traumatic stress disorder and occupational burnout and were adopting withdrawal behaviors that led to high turnover and absenteeism. Nursing leaders needed to exhaust all possible measures and resources to support frontline nurses and address their physical, mental and social needs. Supporting nurses through developing a safe and healthy working environment is essential. Evidence-based strategies should be followed by nursing leaders to retain and support nurses all the time, especially during pandemics as stated in the following excerpts:

*For us in Covid-19 Critical Care Unit ..... the human resources...... I mean the staffing was very bad...... as many nurses were infected and they were quarantined for 14 days and some went on vacation and could not return from Philippines and India..We very tired and exhausted and feel sick and not wanting to work. Many staff ended their contracts and left......no compensation or risk allowances as we were taking 3 ventilated patients and risking our lives....... long working hours and increase the workload in the unit. The turnover.....mainly… was related to the fear of the disease and also staff were burnout due to surge of patients. (*Participant 9, Female*).*

Our work....is always stressful and shortage of nurses is a global problem but this pandemic really has moreover… exposed us nurses to additional stressors… We fear our life and patients die everyday not good for us emotionally. … Initially with no vaccine and media was very frightening……. and we do not want to be nurses anymore and want to go back to our country. (Participant 5, Female).

*As foreign nationals this caused more stress….. the lockdown we were unable to be or see our family. But thank God…. because of the technology we are able to talk to our families and then we feel better. Work stress increased and…. damaging to our physical and mental health, and this high levels of burnout and stress resulted to high staff absenteeism and decrease our productivity. The increase workload….. really caused more…. emotional exhaustion and many nurses ended their contract. (*Participant 8, Male).

5.5.2 Major Theme 2: Staff motivation and its influence on work performance whilst caring for Covid-19 patients

The workforce in the health sector has specific features that cannot be ignored and motivation can play a vital role in many of the compelling challenges facing healthcare today. Due to the global pandemic, majority of the participants, who responded to effect of work motivation, during the interviews, believed that their motivation has an effect on their organisational performance during the pandemic. The extrinsic motivation yielded better performance on their job tasks and their workload during the pandemic that required discipline and determination. Therefore, both intrinsic and extrinsic motivation was essential in enhancing foreign national nurses' job performance in the Covid-19 Critical Care Unit. Many of the participants suggested that hospital management should determine the extent of influence of both elements on job performance and employee's willingness to work and stay in an organisation. This depended on the extent to which they were adequately motivated.

The majority of the participants stated increased work performance followed by good team spirit is important during the pandemic and many believed this factor did not exist. Getting prospective encouragement, recognition and financial incentives were the main descriptions the nurses gave to motivation. Increased work performance, job satisfaction, good team spirit, patient satisfaction and job attachment were the identified effects of foreign national Critical Care nurses' motivation. The five sub-themes that emerged under this major theme during the interview were:

Sub-theme 2.1: Recognition and Reward

Sub -theme 2.2: Emotional Support from leaders and line managers

Sub-theme 2.3: Team work and positive team spirit

Sub-theme 2.4: Acknowledgement for work performance

Sub-theme 2.5: Supportive organisational working conditions

Sub-theme 2.1 Recognition and Reward

Incentives, rewards and recognitions are the prime factors that impact on employee motivation. As employees engage in their working activities purposely for own sake, they feel a kind of intrinsic motivation, which is displayed in their behaviours and their activities. The reward and recognition programs serve as the most contingent factor in keeping employees' self-esteem high and passionate. Flynn (1998: 30) argued that rewards and recognition programs keep high spirits among employees, boosts their morale and creates a linkage between performance and motivation of the employees. The increased workload during the Covid-19 pandemic within Critical Care Units created a sense of low morale and physical and emotional exhaustion. Many of the participants expressed that at times they just worked and had no choice because of the patient demands. They added that the extra shifts and longer working hours and no financial compensation did demotivate them and they expressed their dissatisfaction at being misled about Covid-19 allowances as an occupational health allowance as stated in the following excerpts.

I just think that that the whole world is facing this pandemic or this situation….. So, what I'm thinking, …. that, management should give us some reward for working in the Covid-19 Critical Care Unit . But what I have now, so I should be happy with it. But our organisation now, they're still giving us the opportunity to earn our salary, to still survive during the pandemic. So, and the number one motivational factor is occupational risk allowance over and above our salary…..” (Participant 6, Female*).*

*As a foreign national…. of course away from the family wherein we don't have anyone here is that, the most important thing, one of the motivational factors…… I guess is, the significance of support…… of any kind and some appreciation for risking our lives…. with an allowance. The management rotated us into the Covid-19 units and…….. allowances or compensation for occupational risk allowance but were misled and this created mistrust and demotivated us to work extra shifts and long hours. (*Participant 9, Female*).*

Sub-theme 2.2 Emotional support from leaders and line managers

Supporting your staff in a work setting strongly impacted by the coronavirus (Covid-19) outbreak should involve some key adaptations to your routine. The workplace is often a place where people turn to others for help when they are dealing with problems. However, stress reactions can affect everything we value at work: control, growth, productivity and connections. Given the many variables that occur at work in relation to a pandemic response, as a manager or leader if you can build a relationship of trust with teams and individuals who are experiencing intense stress reactions, you can support and help employees recover more quickly. Supervisors and Managers have a critical role in providing care, compassion and support to staff, as well as identifying when someone may need additional psychological help, especially during the Covid-19 pandemic when employees were under additional stress. Participants expressed that they experienced stress reactions which were physical, psychological, cognitive, and behavioural. Overall, the majority of the participants expressed that they received enormous support whilst some did not feel supported or appreciated by their line managers and leaders during the Covid-19 pandemic as stated in the following excerpts:

We became dependent for the support from each other….. because we all feared the virus…. fear of being infected and dying. Also give us strength….. prayers in giving care of …patients and the support of the

administration…. in our psychosocial support. We received …..lots of support from other units were staff came to help and from the doctors and the multidisciplinary team. Our team leader made sure….. we had enough meals water… as we could not leave unit and this showed us that we were appreciated and gave us strength to overcome our fears." (Participant 6, Male*).*

*One of the basic needs….. and fulfilment is that, proper, information regarding the Covid-19 infection. We lack… adequate information about the virus and this created more anxiety and fear. The increase in the workload….. frustrated us and the shortage of PPE increased our anxiety levels …. mistrusting to the management. But in time we felt a bit at ease and … feel a bit safe and working as a team. The emotional and psychological support ….. from the peers…. nursing team ….. with taking care of the Covid-19 patient. We had some sense of belongingness and appreciation for our work. (*Participant 10, Male).

Sub-theme 2.3 Team work and positive team spirit

Amidst the unprecedented outbreak of Covid-19, it is both critical and increasingly difficult for healthcare professionals to engage in the teamwork that will underlie an effective response to the pandemic. Teamwork is characterised by the coordination of expertise and other resources. In diverse groups, there is a natural inclination to focus inward and think about people who are like us, in roles like ours. Effective teamwork and positive team spirit in healthcare increasingly requires coordination across professions, units and even organisations. As the Covid-19 outbreak developed, healthcare professionals faced additional challenges to teamwork. The simultaneous need for and challenge to teamwork, though, is not unique to healthcare. Healthcare workers have been heroes during the Covid-19 pandemic, but many of the participants expressed that they aren't always treated as such.

Critical Care nurses have been feeling underappreciated at times during the surge of patients and had feelings of wanting to leave their jobs and return to their country of origin. However, some of the participants had a difference of opinion and believed that the good thing about Covid-19 was that it had brought out good leadership qualities and strengthened the bonds of the teams within the Covid-19 critical care environment. Participants also expressed the need for greater support and communication from healthcare work teams to look after their mental well-being as stated in the following excerpts:

As this is the first time for us to handle such cases…. when Covid-19 came, it came as a pandemic already… So of course, it brings fears and anxiety feeling.. We started to fight with each other and not happy taking care of 2 ventilated patients…… this created negativity. The nurses that came to help some added no value and this frustration increased our low team spirits. ….the first wave of the virus there was a very poor team spirit ... After sometime this became the new normal and the team work improved... (Participant 4, Female)

In my opinion….. Excellent leadership is most essential factors that affect my work behaviour.. When the Covid-19 started we knew nothing about this virus …… patients were dying and this created fear and mixed feelings. There was lack of team work and a very low morale that affected our team spirit. ….Staff became selfish and refuse to help turn patients…. they were exhausted. By ….the second wave there was a positive environment and..Teamwork better…..environment positive and healthy. (Participant 7, Female*)*

I have experienced lack of team work during the first wave… it was a very stressful environment to work. So…. it was all new to us. In the beginning… some confusion and disagreement about patient care and about protocols and guidelines. Nurses and doctors not agreeing on the care plan…. new doctors lack experience due to shortage of chest

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*specialist ... However, as the times…. we were getting more information and more education about the disease….. the team work improved. But now at least we have some more information and more guidance from the management. (*Participant 2, Male*).*

Sub-theme 2.4 Acknowledgement for work performance

Performance, recognition, acknowledgement, and praise is a direct reflection on an individual's performance and thus the individual's personality and preferences should be considered. Tangible incentives are effective in increasing performance for tasks being done during this challenging time of the Covid-19 pandemic and to encourage thinking smarter and to support both quality and quantity to achieve goals. Work performance can be referred to as the ability to accomplish a work done with satisfaction to the worker. Barati and Bashirian (2020:60) also relate motivation to organisational performance as a drive of a stable mind, aspiration, force or interest within the individual that translates into action. Many of the participants expressed that their work motivation is deemed to be important for their intent to work.

Participants expressed that it is important to recognise employee performance and make sure the individual is at the heart of any consideration you may have on how you proceed to reward them. They also shared the feeling to connect or engage with management or closest colleagues if they unsure how the nurses would like to be recognised for their exceptional work during the pandemic. In their opinion, they believed when they received acknowledgement for a job well done then this creates a positive relationship between their own motivation and their performance. Praise and recognition will then exhibit positive energy and increase the collaboration within the teams and thus alleviate fears of the virus. Participants shared their feelings that this is a way to make your employees proud of their work and let them share in the joy of their achievement as stated in the following excerpts:

In my opinion….. The recognition for our hard work and performance during this challenging time. These factors…… might have been affecting my behaviour. As we are ..busy and feeling overwhelmed with all the fear, anxiety, while taking care of critically ill ventilated patients, at least we will get….. recognition from our superiors. At least thanks or some kind of appreciation. … We also feared our lives due to fear of becoming infected. This also affect my behaviour, as I will have the fear, anxiety, and also stress and danger and tension while working. (Participant 8, Male)

Well, for me, I'm a very thankful person for every single thing that I have. So, appreciation is a very big method as the highest motivational drive for me as a foreign critical care nurse. I received acknowledgement for my performance and my charge of the shift always appreciated my work and thanked me for my work after every shift. I received lots of respect to my line of work from all in the unit. (Participant 1, Male).

*Acknowledgment to me is both as expressing the existence of something, and as expressing or displaying the appreciation for something…What I wanted was someone …..like my charge or team leader to acknowledge that the care was good and then provide an expression of gratitude for our patience. With the surge of patients a …..simple thank you is more than enough for me and this will drive us to be more productive and have a sense of belonging and appreciate our work. (*Participant 4, Female)

Sub-theme 2.5 Supportive and safe working conditions

Because of the Covid-19 pandemic, healthcare systems worldwide are working under challenging conditions. Patients, who are seriously ill, require critical care admission. In fighting Covid-19, nurses are the frontline health care workers and,

as such, have a great responsibility providing needed specialised patient care. However, working conditions and emotional factors can have an impact on the quality of the care provided and influence the safety in the unit. The peculiarity of care marked by the great number of patients in isolation, led to an exponential increase in the workload of the nurses.

They had to deal with care in a unique way and without previous specific experience with such pandemic situations. Another key theme that emerged in the interview was the participants' expectations were about good working conditions and safe working conditions, flexible working hours that allow time for staff to spend with family, having competent co-workers, salary increases and supportive supervision Participants expressed the need to improve on the quality of care for patients and to improve on the security for the staff in the Critical Care Units and to improve staff-patient ratios. The lack of material and human resources has had an influence on the feeling of safety and protection of people, more specifically, on family. The interviewees felt that they did not receive adequate logistical support to be able to do their job in a safe manner as stated in the following excerpts.

*As a foreign national…… in Saudi Arabia, it's hard…… as we don't know what will happen for us… But the key factors… that gave us the strength to work was the support from the administration. And one of the support, also that we receive from our Government in the Philippines, we have a total program for the Covid-19 crisis management. And those Philippinos who are infected with Covid-19, we were give them monetary compensation. (*Participant 5, Female*).*

First of all….. Covid-19 was, fear. Fear……if we will have Covid….. Are we going to survive if we get infected….. During that time it was very stressful… you don't know how to manage these patients…..patients dying every day. We're just praying…. like trial and error at first, until we get to know and understand how to manage the

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*patients that time. We are tired because of the workload that I am scared because in a foreign country if I make mistake very serious consequences. (*Participant 3, Female*).*

5.5.3 Major Theme 3: Behavioural factors affecting group cohesion, teamwork amongst staff working in Covid-19 Critical Care Unit

During the interviews, the majority of the participants expressed their concerns about the group cohesion and trust within the critical care teams during the Covid-19 pandemic. They believed that the way teams develop and integrate norms, both social and performance based, in the evolution of the team dynamic is important during a crisis. Cohesiveness develops over time out of interpersonal and group-level attraction, through collaboration and as a result of a sense of belonging. Cohesive teams communicate more effectively, lead to higher member satisfaction and can create efficiency in resource allocation. There can also be negative consequences to group cohesion. If the social pressures of the group intensify, it may lead to conformity and resistance to change. The four sub-themes that emerged from this major themes from the interviews are:

Sub-theme 3.1 Social stigma

Sub-theme 3.2 Psychosocial barriers to team work and group cohesion

Sub- theme 3.3 Human respect and value systems

Sub-theme 3.4 Isolation due to being labelled and discriminated

Sub-theme 3.1 Social stigma in the context of Covid-19 disease

Social stigma in the context of health is the negative association between a person or group of people who share certain characteristics and a specific disease. In an outbreak, this may mean people are labelled, stereotyped, discriminated against, treated separately, and/or experience loss of status because of a perceived link with a disease. Such treatment can negatively affect those with the disease, as well as their caregivers, family, friends and communities. People who don't have the disease but share other characteristics with this group may also suffer from stigma. The

current Covid-19 outbreak has provoked social stigma and discriminatory behaviours against people of certain ethnic backgrounds as well as anyone perceived to have been in contact with the virus as stated in the following excerpts:

*….. I have actually minimised contact with people….. because of the fear of getting infected and because of infecting others. We are branded as Covid-19 ICU nurses wherever we go and this upsets us. If people know us among the accommodations the communal area, even our own hospital staff they do not talk to us and fear us. When we try to cook our own food, people disappear. So, using communal washing areas were difficult …. we are being condemned and discriminated…… as if we are the one having the disease. (*Participant 3, Female*)*

I*t was difficult…. some of … Roommates, they're not working in a place with, Covid-19 patients. Sometimes they look at you as if you're an infected person also….. So they … avoid you… people look at you as if you have a disease that u can get…. just by greeting. They will not approach you the same way that they were approaching you before, so you will just try to, be alone with yourself. I mean, feeling your needs alone. This loneliness caused me to become depressed and also lost many friends. (*Participant 4, Female)

Sub-theme 3.2 Psychosocial barriers to teamwork in the workplace
The Covid-19 pandemic has greatly affected all of society, including teams in healthcare settings and critical care settings. Collaborative teamwork is particularly susceptible to pandemic disruptions, as coordination across individuals becomes challenging in socially distanced and virtual contexts. Unfortunately, Covid-19 research thus far has not primarily studied individual health and performance and team work. Many of the participants reflected on challenges experienced, changes to team communication, tasks, roles and consequences to team progress and

outcomes. The first set of teamwork challenges stemmed from the impact of outside influences. In other words, these were challenges that impacted the team's ability to coordinate, communicate, and collectively achieve shared goals, but the primary source of the challenge was external to the team.

Participants mentioned increased distractions diverting attention away from the team's goals caused by social cohesion and isolation with a combination of stigmatisation. Majority of the participants expressed the lack of teamwork during the Covid-19 pandemic in the critical are unit among the multidisciplinary team and this could be due to many factors, namely work overload, burnout and fear of the disease. It was evident that failures in inter-professional teamwork and communication lead directly to compromised patient care, staff distress, tension and inefficiency, making a substantial contribution to medical errors as stated in the following quotes:

In my opinion… we tried to work as teams … workload was too much and tried our best to help each other… But at times nurses refuse to help and being in a multicultural unit and diverse culture people expected us foreigners to work in the Covid patients. As the fear increased and workload increased we started to become selfish… and ignore each other. Staff in the team got angry especially with doctors refusing to examine patients and expecting us nurses to do their work….. However we managed and all emotions settled but was a good experience to know whom u can depend on in the unit. (Participant 10, Male).

*At times we felt alone as we could not go out… had to stay within isolation areas and no one came to help us including the charge. We tried to work together… but the fear of being infected affected our mental health…. we were shouting each other and not helping each other. This was not good …. after the second wave we more familiar with the virus and environment healthier and we more relaxed. this was not a good feeling fighting and arguing with our seniors and our colleagues. (*Participant 8, Male)

Sub-theme 3.3 Human respect and value systems in the workplace during Covid-19.

Every human might contract diseases in their life, especially during pandemics such as Covid-19, which has affected a significant percentage of the medical staff globally. Meanwhile, infected nurses should not be forgotten and like all patients, their rights must be respected. The Covid-19 pandemic significantly increased the challenges of Critical Care nurses and caused their resignation in many cases. Paying attention to nurses, encouraging and supporting them and allocating resources to resolve their challenges can assist them in solving their existing problems and providing the most effective services for patients. Moreover, participants expressed the need for leaders to lighten the burden of Critical Care nurses' difficulties and help them more effectively fight the pandemic by identifying and paying attention to their problems in pandemics.

According to the participants, declined ethical values were a challenge faced by the nurses within the multidisciplinary teams. According to the recovered nurses, ethical values threatened at different levels, including patient rights, professional values governing nursing and the way administrators treated nurses regarding their human rights might eventually reduce the quality of patient care. These concerns were rooted in the workplace of the recovered nurses some of whom were the participants that were infected and re-infected as stated by the following participants:

*At times the first wave….. was no respect from doctors and the charge nurses…. tried my best to manage with the workload... many changes to my life to give off my best. ..but when there was complains or errors that not too big…. charge nurse always reprimanded me and made me feel incompetent. The trust was not good and people lost respect for some charge nurses and some doctors blamed us for all the issues in the unit…. This at times wanted me to cry and leave the country and go back to my family. I feel not respected and appreciated for my hard work and no compensation for risking our lives. (*Participant 7, Female*).*

*Umm… trust and respect is very important for our well-being and psychological mind and at times I felt unappreciated …. Wanted to quit my job. But because of my oath to the job I stayed. We were promised some safety allowance and to date nothing…. This now create a feeling of mistrust from our managers… we worked hard and nothing we got in return as most national nurses refused to work with Covid-19 patients and we foreigners were exposed and infected. But we all survived and I plan to exit soon and be with my family. (*Participant 5, Female*).*

*Because you don't like the person or you don't' trust the person. You only have that person. For example, in our, team…. I'm doing charge, then we don't trust the staff because he's new or he's, uh….. not competent…. but you don't have anyone. So….for them to get your respect … you should respect them….. you don't have anything on that moment. In Covid- ICU we became a team…. so we got our backs together. And even the doctors…. they are there for us and whenever we need them.(*Participant 2, Male*)*

Sub-theme 3.4 Isolation due to being labelled, stereotyped and discrimination

The Covid-19 pandemic has been instrumental in creating a dramatic shift from people's need to live in mutual association toward a desire to stigmatise distinctive others. Stated simply, stigmatisation is a social process set to exclude those who are perceived to be a potential source of disease and may pose threat to the effective social living in the society. Apart from the fears, anxiety, and sadness, people's sense of irritability has started mounting. Amid such a deranged spread of Covid-19, one of the important concerns expressed by the participants was the negative impact that needs to be urgently attended namely stigmatisation associated with the pandemic. Many of the participants felt this isolation and discrimination amongst their roommates and their colleague because of working with Covid-19 patients. Fear of contracting the disease has been understood as one of the major precursors for the

people to indulge in stigmatising the infected and the suspected because of their close-knit association with the spread of the disease.

Some of the observations participants experienced was discrimination exhibiting itself verbally or non-verbally, and also in various contexts of the situations within the Critical Care Unit and in their accommodation. Exclusion from other social groups within the teams, sometimes racist nickname calling, threats, hostile messages, cyber-bullying, obscene gestures or physical attacks are some of the more commonplace acts of discrimination participants experienced within the unit and within the social groups outside the unit. Regardless of how it manifests, participants expressed that discrimination leads those targeted to feel isolated, rejected and ignored and to experience penalty, harassment, scapegoating, and even various forms of violence as stated in the following excerpts:

*Ma'am….. I got Covid. That time I was isolated in the F block… That time I have a three-year-old and he want to see me….. So, my husband brought him to this F block…. Then the security would not allow him inside to enter the door. The glass door was there, he showing the hands like that, only I can show my hand only. That time I was crying also. I felt the loneliness…. But in the mind, I fixed it positively. So, I prayed. I was thought positively that this will change that. (*Participant 7, Female*)*

Actually when I get…. Covid I got quarantined… I don't know if I will go straight to my room or where will I go…I might infect my roommate. In ICU also during break time I feel alone and do not want to be with others ….It's very difficult…. Like fear…. that you might…. Uh…. you might spread...to others and you are the cause. Working in the Covid-19 unit…. felt isolated and labelled from the rest of the staff .You're thinking that you are the cause…if they will be get, uh, sick or, I don't know. People outside the ICU labelled and distanced themselves from us like we had the plague. (*Participant 2, Male)*

5.5.4. Major Theme 4: Increase in workload and resultant emotional exhaustion of staff

Healthcare workers who are on the frontline of Covid-19 and are also undergoing shift schedules and face long work hours with few days off or rest days. They further experienced de-synchronisation of their circadian rhythm, and an imbalance between work hours effort and reward in saving lives, resulting in an impact on work capacity, aggravated by the lack of personal protective equipment (PPE), few resources and precarious infrastructure and fear of contracting the virus and contaminating family members. Some consequences were sleep deprivation, chronic insomnia, stress-related sleep disorders, and post-traumatic stress disorder. These sleep alterations critically affect mental health, precipitating or perpetuating anxiety, stress and depression, resulting in the inability to regulate positive and negative emotions.

Pre-existing sleep disorders are an important risk factor for the development and maintenance of PSTD when individuals are exposed to an important stressor such as a Covid-19 pandemic. At the same time, how an individual regulates the emotion associated with worries during daytime functioning, impacts night-time sleep, precipitating and perpetuating difficulties in sleeping. All of these changes in sleep and emotional regulation also alter the immune system. **The sub-themes that emerged from the major themes from the interviews were:**

Sub-theme 4.1 Sleep deprivation and its influence on emotional exhaustion.

Sub-theme 4.2 Fatigue and distress and their influence on emotional exhaustion.

Sub-theme 4.3 Work life balance and influence on emotional exhaustion

Sub-Theme 4.1 Sleep deprivation and its influence on emotional exhaustion.

The occupational field of the health professional during the pandemic brings with it an increase in the workload and a displacement of sleep schedules, causing sleep deprivation and increased stress. Both stress and its deprivation have a bidirectional relationship, intimately linked to the immune system and the regulation of emotions,

which creates an increase or presence of sleep disturbances, emotional disturbances and the appearance of immunological vulnerability. Sleep deprivation also affects the regulation of emotional processing. This condition makes us more emotionally reactive and more sensitive to stressful stimuli and events. Not only does emotion impact sleep, but there is also evidence that sleep plays a key role in regulating emotion. Emotional events during waking hours affect physiology, sleep patterns and how we react to events that affect our overall well-being. Many of the participants expressed their concern about being overworked and because of the increased workload they became too tired to rest. Emotional exhaustion led to sleep deprivation and insomnia. Participants related this increase in workload to sleep deprivation due to long hours of work and also they also faced high levels of stress when they were away from their home and families and/or when they remained in the medical setting because of the concern of contagion generated by living with family after caring for Covid-19 patients. The following statements note this:

*Normally, okay, but always we are doing extra duties….always tired and emotionally exhausted and cannot sleep. We lose focus because of increase workload….. too many patients critically ill and dying with and without.. co morbidities. If no staff they will call…. they can call us any times, we have to work more. So, we are disturbed in our sleep patterns….. Disturbed in our exercise and our lifestyle.   Lack of sleep also caused us to look tired and we became burnout. (*Participant 7, Female)

*The sleep….. has been affected because of the anxiety and the fear of getting, the infection. We so…… tired after our shift because too much work and very sick patients… We leave shift late and by the time we go to our accommodation we need to cook.. Clean…iron…this cause's further exhaustion…. we cannot sleep. We have flash backs if we finished the work or made any errors and this very scary and no time to rest our mind always thinking about work and errors. Fear causes me not to sleep properly. (*Participant 6, Female)

Sub-Theme 4.2 Fatigue and distress and their influence on emotional exhaustion.

The Covid-19 pandemic had a massive impact on healthcare systems, increasing the risks of psychological distress in health professionals. Due to their characteristics and working conditions, Critical Care Units have always been considered a place where healthcare professionals are at high risk of experiencing moral distress During the pandemic, professionals have suffered moral distress as a result of their exposure to potentially harmful situations such as repeated empathic commitment to patients grief and loss, limited access to proper personal protective equipment, poor perception of organisational support, worries and concerns regarding becoming infected and infecting their family members, uncertainty about disease containment strategies and concerns about seeing patients die.

Some of these situations could be understood as institutional violence or inappropriate ethical climates. Participants shared their experiences from workload and fatigue with distress. Their workloads increased considerably due to the clinical severity of the patients being admitted and complications linked to the use of PPE. They needed to perform activities more quickly and efficiently than usual due to the risk of contagion, coupled with the heat, suffocation, and discomfort caused by wearing PPE. This took a physical and psychological toll, especially on nurses as stated in the following excerpts:

*You feel very stressed. … Sometimes you want to give up during work. I think that's on the self-respect and also the fatigue. Other people not giving you respect, you feel like giving up from this work, from this stressful situation. The workload and patients very sick… more tiredness and fatigue. Patients were dying we could not cope. My fatigue due to increase number of critically ill patients and nurse patient ratios at times I had to take 3 patients of which 3 were ventilated. (*Participant 4, Female*)*

Everyone was stressed and fatigued during that time. You don't know what to do. And, uh…..doctors also will, they will shout at you … why you're not doing this to the patient. And you have another patient to be cared for which is critically sick also, you don't know which to prioritise. The environment was very stressful.. I tried to stay calm and manage my stress and fatigue but because people not working together increased my fatigue and this caused me to be unhappy. Was so emotionally exhausted because of the workload… I feel emotionally drained, overwhelmed, and fatigued and could not concentrate with my patients and making mistakes like forgetting to bath patients and give medications. (Participant 5, Female)

Sub-theme 4.3 Work life balance and its influence on emotional exhaustion.

During this lockdown, the scenario at home was quite different from the previous times, as all family members were on lockdown together inside the home. On the one hand, this lockdown gave an opportunity for good family time, but on the other hand, it created challenges to manage family responsibilities. Restriction on out-door movements changed the lifestyle of every individual. Keeping all the family members engaged during the lockdown and facilitating their psychological well-being required a lot of effort from every member of the family. The heavy workloads, extra shifts, and high levels of stress to which they were exposed led to physical fatigue, stress and insomnia.

A number of the nurses suppressed their emotions at work and burst into tears when they arrived home. Many of the participants expressed fear as one of the issues related to work-life balance and emotional exhaustion. They lived in fear of infecting their family members, especially the elderly and children. With respect to gender, women explained their emotions, distress and concern for their families and the self-cleaning and self-disinfection "rituals" performed at home in more detail whereas male participants provided less information on this topic and rationalised the situation more as stated in the following excerpts:

Balancing my work life and family life while working in the Covid-19 unit and with critically ill patients has been a challenge for many of us foreigners. For the nurses that did not have family I think they coped better because they lived alone in the accommodation for me my family with me and my 2 children. I was scared to go home.afraid I will infect them. My relationship with my husband took strain as we also feared me working with Covid patients and wanted to return to India. But we need the money. Many of the nurses experienced work-family conflict while working in the Covid unit but we all had to cope with the situation. (Participant 3, Female)

The struggle to juggle between work and family responsibilities was one of the reasons for my emotional exhaustion. During lockdown no life had to stay at work or at home. Our families became frustrated of being away from our other family. Some of our families died from Covid and we could not travel to sympathise with them for their loss. So, it's just frustrating when you go out.. Playing tennis was also restricted because some tennis courts, they were closed during that time so, I didn't get that time for myself… having more stress toward, during this pandemic. (Participant 2, Male*)*

5.5.5 Major Theme 5: Existence, safety and psychosocial needs of staff in the Covid-19 unit

The emergence of Covid-19 has affected health-care workers' psychological and mental health. Existence needs were the main needs during the epidemic, with health and security needs influencing each other. The need for health refers to the nurse's attention to their own physical and mental health and the need for safety refers to the hope for adequate personal protective equipment (PPE) and the emotional stability of patients' family members. The relatedness need was primarily manifested as a need for interpersonal relationships, a need for community concern and a need for affection by majority of the participants. Moral injuries were some of the psychological distress that prevented nurses from performing an action that contradicts one's own moral and ethical code. Participants expressed that such

incidents produced emotional guilt, shame and anger and some insecurity. This is consistent with the idea that was expressed by some of the participants. Even if a person's needs for existence and relatedness have not been fully met, he can still work toward developing the need for growth, as stated by the ERG theory. Five sub-themes emerged from the major theme as illustrated below:

Sub-theme 5.1 Health and safety of working environment

Sub-theme 5.2 Lack of existence needs during Covid-19

Sub-theme 5.3 Physiological and psychological factors experienced during Covid -19

Sub-theme 5.4 Lack of sense of belongingness

Sub-theme 5.5 Fear and anxiety during Covid-19

Sub-theme 5.1 Health and safety of working environment

The response to the Covid-19 pandemic is continuously evolving as we learn more about the virus and the best techniques to address the associated risks. The pandemic has also highlighted the extent to which protecting health workers is key to ensuring a functioning health system and a functioning society. Covid-19 has exposed health workers and their families to unprecedented levels of risk In addition to physical risks. The pandemic has placed extraordinary levels of psychological stress on health workers exposed to high-demand settings for long hours, living in constant fear of disease exposure while separated from family and facing social stigmatisation. Majority of the participants raised safety and health issues during the interviews and did not feel safe within the organisation and also feared their health. They strongly expressed their concerns about their mental well-being that altered from burnout and shortage of supplies and PPE. Violence from patients' families was another issue in the Covid-19 Critical Care Unit, as families were prohibited from entering resulting in poor security to protect nursing staff after hours as stated in the following excerpts.

I think that one does not focus much on health when we busy. The scarcity of supplies that time. This impacted negatively on our safety and increased out fear of being infected. Safety concerns by the security for the isolation areas. Families physically and verbally abusing us and no support from the head of security and management tried but also no feeling of security.(Participant 4, Female)

One of the health and safety challenge is sending the staff to Covid areas, since there is resistance due to fear of being exposed and infected. They were so fearful of the machines and ventilators and we spend more time reassuring So, how we manage it, we keep on educating and encouraging the staff to do the proper, use of PPE, and to protect them. Also security a big problem in the Critical Care Unit s. We encountered lots of physical most of all verbal abuse from the families refusing to accept that the area is isolated and no visitors. (Participant 5, Female)

Sub-theme 5.2 Lack of Existence needs during Covid-19

The existence needs comprises of all those needs that relate to the physiological and safety aspects of human beings and are a prerequisite for survival. Thus, both the physiological and safety needs of Maslow are grouped into one category because of their same nature and a similar impact on the behaviour of an individual. Alderfer proposed the existence, relatedness, and growth (ERG) theory of humanistic needs on the basis of Maslow's hierarchy of needs. Majority of the participants expressed that they have three core needs, namely a need for survival, a need for relationships, and a need for growth and development during the Covid-19 exposure in the Critical Care Unit. The existence needs primarily manifested as needs for health and safety with all the participants. Some of the relatedness need primarily manifested as a need for interpersonal relationships, a need for community concern and a need for affection. The interviews showed that the need for existence is currently the primary need in Critical Care nurses.

Physical health is a basic necessity required to overcome the epidemic and all respondents exhibited a strong need for maintaining health as stated in the following excerpts:

It's been a long time since I've seen any colleagues that I used to work. I hope that I won't become infected by the virus. And scared to die. I miss the days when we could talk to each other without face masks and I hope scientists can find the source of infection and develop a vaccine as soon as possible. I want my life back and want to enjoy my time with my family. But now we have the vaccine and still some nurses getting infected after the two doses and this is fear for us.(Participant 1, Male)

I hope that personal protective equipment is available every day so that I don't have to worry as much about myself or my colleagues getting infected. I hope that the hospitals also provides sufficient medical services so that I feel more at ease at work and less worried about my family. The virus still can't be treated with specific drugs. I feel really anxious and scared. Now that we all got the vaccine I am feeling more alive and have some hope. (Participant 2, Male)

To survive and be fit because of this scare of the virus I do not want to get sick or die or infect my family. Now, I eat fruit and take vitamin C supplements every day to strengthen my immunity. Now I am paranoid about my immune system and my existence. I now practice yoga and do aerobic exercises every day at home follow the guide on TV in order to get rid of toxins and strengthen my immunity. Lots of myths about ginger lemon honey and many homemade soups and this became our new normal and life. (Participant 6, Female)

Sub-theme 5.3 Physiological and psychological factors experienced during Covid- 19

Physiological needs are the requirements we all need individually for human survival. Moral distress is a negative feeling, such as guilt and worry that occurs in acute healthcare crises triggered by the inability to provide optimal care. The

psychological needs of nurses caring for Covid-19 patients were explored through the interviews from the perspective of the ERG theory. Majority of the participants expressed that needs for existence, relatedness, and growth coexisted among clinical nurses and affected each other. This is also consistent with the idea proposed by the ERG theory that an individual may have more than one need at the same time. By establishing psychological coping task forces with help of the nursing department and psychological experts, and setting up psychological support platforms to provide community support for healthcare professionals, may contribute to fulfilling the needs of nurses and protecting their mental health. Though, face-to-face communication was reduced during the epidemic, the need for interpersonal relationships and affection in clinical nurses can be enhanced through other ways for emotional expression, such as colleagues encouraging each other during work as stated in the following excerpts:

So, one of this is, affecting physiologically is my leisure, where there is no places to hang out, especially on, during the off duties due to the restrictions of the malls and other facilities outside. The second one is, uh, fear of being infected. It will affect our sleep, um, because of fear and being unsure that we will get the infection or, when our colleague will get the infection. We have no life during the lockdown and affected our well-being and also unable to see our families no flights to travel. (Participant 4, Female)

One of the important psychosocial factors that helps me is that the need for the peer support and as well as teamwork, within the healthcare team. Because without teamwork, then we will not be able to feel the sense of belongingness and it will give us more fear and tension when it comes to giving care to Covid-19 patients. At times we became frustrated with each other and started to shout and argue but by end of shift us friends and realized that we all stressed because of fear and high workload. (Participant 6, Female)

Sub theme 5.4 Lack of sense of belonging

The relatedness needs refer to the social needs that an individual seeks, to establish relationships with those for whom he cares. These needs cover Maslow's social needs and a part of esteem needs, derived from the relationship with other people. However, social, cultural, financial, personal, environmental, internal and educational perspectives and concepts may change the experiences, sense of belonging and career decision-making process of individuals. Environmental factors such as the Covid-19 pandemic may influence the experiences, sense of belonging and want to belong. It is human to feel that desire in all aspects of life, work, home, and social circles.

Participants expressed the need to not just wanting to belong but needing to belong which in their opinion was human. Participants further expressed the sense of belonging and feeling part of a group that accepts them and not label and distance themselves from them because of working with Covid-19 patients. But now that Covid-19 has pushed relationships remote and created more isolation, the impact on belonging is profound especially in the workplace. In essence, before the pandemic, those who remained close and engaged with people did not let emotions get the better of them and allowed people to know them personally and tended to feel the greatest sense of belonging as stated in the following excerpts.

In my opinion in what I have experienced because, during this time it was a very stressful, environment to work in. In the beginning we might have some confusion and disagreement about patient care and about protocols and guidelines. We did not feel supported and felt rejected by our team and here we had no sense of belonging. Our team leaders and managers never come inside the isolation area to check on us and how we coping with this patients and also about our well-being. Yes I was upset and disappointed however, as the times goes by we

were getting more information and more education about the disease.
(Participant 6, Female)

*The sense of respect in the workplace and the sense of belonging are there but in the early times of the disease we had feeling no one cares but as the disease or virus progressed we felt good. We can find ourselves not alone in this time of pandemic. We had good support from management and at times I can say I used to get frustrated because workload too much and this made me angry because no staff wanting to help. (*Participant 5, Female)

Sub-theme 5.5 Fear and anxiety during Covid-19

The Covid-19 pandemic has led to a rise in fear, anxiety, stress and depression among the healthcare workers. The fear experienced by the nurses may be due to different factors such as the rapid surge of the Covid-19 cases and deaths in Saudi Arabia and other countries (Mekonen*,* Shetie and Muluneh 2021: 1353). Majority of the participants expressed that as nurses, they are considered front-liners who are directly involved in treating patients with Covid-19 and this contributed to their feelings of fear of being infected and fear of infecting others or family members. The fear of the unknown was in the early phase of the Covid-19 outbreak when there was no specific medication and knowledge of the mode of transmission of the disease. Several strategies were recommended by the participants to reduce the fear, anxiety and emotional burden of Critical Care nurses during the Covid-19 outbreak as follows:

I feel for the fear of the virus and unable to go outside. And I cannot go outside because I'm afraid from there we get the Covid virus.   I'm too much afraid to go even to the patient side because, and after that, I get the confidence to treat the patient like that. This fear was bad and mostly because I had no knowledge about the spread and the media

*also made us more scared. Not good to fear because I could not sleep and eat and the news showing what is happening here in Saudi Arabia and in my country Philippines the people dying was scared for my family there. (*Participant 1, Male)

*Well, in most cases, we fear of getting infected while taking care of Covid-19 patients. And we have fear of, um, infecting our family or our roommates when we go home. And at the same time, there are a lot of uncertainties if we will, even if we will go outside, we might get infected from outside…. became anxious when flights cancelled and lockdown and this really felt like the end of the world and all I could do was just draw close to god and pray for people and myself and my family and friends. (*Participant 4, Female)

5.5.6 Major Theme 6: Altered growth needs, self-esteem and self-actualisation whilst being exposed to Covid-19 patients

The Covid-19 pandemic has brought significant pressure on nurses globally as they are the frontline of care. This study is aligned with the ERG model. In this qualitative study, the researcher explored the experiences and challenges of nurses who worked with hospitalised patients with Covid-19 in the Critical Care Unit and how they perceived their growth and development during this pandemic period. Majority of the participants saw the pandemic as an opportunity to learn and develop whilst some participants felt they did not develop because they had to cancel their studies such as online studies was not favourable due to lack of face-face contact. Due to travel restrictions they could not travel home and write their exams which impacted on their professional growth. The following three sub themes emerged from the major theme as illustrated below:

Sub-theme 6.1 Professional growth and development

Sub-theme 6.2 Low self esteem

Sub-theme 6.3 Self actualisation

Sub-theme: 6.1 Professional growth and development

Most managers know that training is essential for team success. But many don't take the time to understand team members' individual needs. Even though it's the only way to ensure that people have the skills and knowledge they need to perform well and meet their objectives. The Covid-19 pandemic has caused disruption in the workplace and some participants expressed that they benefitted with online training whilst some preferred face-to-face training and believed they did not grow or develop during the Covid-19 pandemic. Therefore, training and development should not follow a "one size fits all" approach if you want it to be effective. Instead, managers need to take the time to understand the training that each individual needs, so that they can provide the right training for the right people according to training needs analysis. With this tailored approach people will also feel empowered and they will be able to link their skills and knowledge to their growth objectives and also boost their well-being and morale during pandemic situations for the future as stated in the following excerpts:

*Uh, in my opinion, I think I am fortunate because first time I face this pandemic and this time I learned a lot and was able to care for my patients with Covid-19. I have …er.. hmm….. received great, support from my nursing administration with constant webinars and zoom and WebEx conference calls and workshops on the disease the spread and scientific information on the spread and the ways to prevent the spread. I am allowed to study even though in this Covid-19 pandemic, uh, crisis I was able to learn more about the Covid virus and also finish my masters degree online. This was a great growth and self- development for me as ICU nurse. (*Participant 2, Male).

Because actually before, I was planning to pursue more of my studies but because of the Covid-19 situation, I cannot. I think it's possible but it's very difficult to pursue your, uh, growth, uh, like my education. Like, you want to take up some Masters or to expand your learning. But as

of now, it's very limited. The training inside hospital also not ongoing because of restrictions and social distancing. Now I feel that training stopped but the online zoom is there but not good for learning. I feel these 2 years wasted but I plan to continue my development with my country for future. (Participant 4, Female).

Sub-theme 6.2 Low self esteem

It's not an overstatement to say the Covid-19 pandemic will likely change us for life. Not only has the world lost loved ones and faced unprecedented challenges, the outbreak has changed the way people work, socialise and go about their daily lives. Unsurprisingly, it has had a significant impact on a person's confidence and self-esteem. The sudden changes and challenges brought by the pandemic have also had a knock-on effect on self-esteem, loss of control and job insecurity. Many of the participants related the Covid-19 exposure as traumatic experiences that deeply disturbed their sense of themselves, their safety, the relationships they rely on and their daily routines. Participants, become emotional during the interview and expressed that without safety and balance, their very being felt disturbed. Being around friends and family could give them confidence and a sense of who they were, but the isolation and loneliness had a serious impact on the way they felt about ourselves as stated in the following excerpts:

> *By nature we are like animals so being connected and having a sense of belonging is our natural and healthy way of being. The sudden detachment from this from our usual social, familial and daily interactions was bound to take its toll. Felt alone unable to be with our families and friends it was bad time for us a foreign people in different country and i became emotional as i lost my dad from covid-19 and some of my family. The more we have disconnected, the more we might experience not feeling good and worthy enough... Hopefully we will regain our self confidence in the future. (Participant 10, Male).*

*We've also been living through a period of heightened work anxiety too much Covid-19 patients. We had to make many changes to work routines, as well as being fatigued and sometime feeling low morale. Our self esteem was low at times, can lead us to question our skills and abilities. I felt useless because I knew nothing about this disease and then patients dying no cure this was sad for me and I lost all confidence in myself as critical care nurse and wanted to give up the profession. But I stuck through the pain because I am a nurse and my duty to care. (*Participant 8 Male).

Sub-theme 6.3 Lack of Self actualisation

The pandemic has brought great distress to the majority of the population in the world. Some adverse effects of the pandemic are depression and other mental illnesses. To attain positive well-being, self-actualisation in the social determinants of health plays a crucial role in attaining positive well-being among nurses. This is a vital area, knowing that each human being wants or desires to attain life's higher purpose. Finding meaning and happiness in life are basic human aspirations even despite a global pandemic such as Covid-19. Maslow's theory and Alderfer's theory prove that the drive to self-actualise will only emerge as a motivator once a variety of more basic needs are met (Del Castillo 2021: 148). Majority of the participants shared their experiences on this subject by expressing the chaos of the pandemic. They believed that the pandemic has caused unprecedented challenges and major impacts on their health and well-being. It shattered many dreams, halted normalcy and brought pain to many of them as this impacted on their families and lost their loved ones as stated in the following excerpts:

This experience during the pandemic really made me lose my confidence and made me not set goals and dreams. Was not sure that I will survive and felt like no purpose to live…Finding meaning and happiness in life are the basic human aspirations even despite a global pandemic such as Covid-19, but I did not care anymore…Our self-actualisation desire is to pursue our level of creativity and becoming human again and Covid did not allow us to transcend to a higher level of needs… the fear of the disease

and the rapid spread did not allow us to feel self-actualised. We were unable to take full advantage of our talents or our skills while still being mindful of limitations during covid-19.(Participant 10, Male).

For me the main part of self-actualisation is recognising my limits in addition to focusing on my strengths this were my practical skills, and my educational strengths...From there, you would live your life in a way that best utilizes your strengths while taking steps to achieve your dreams. The pandemic shattered my dreams both personal and career wise and hoping that everything when normal i will pursue my career goals....(Participant 4, Female).

5.7 SUMMARY OF THE CHAPTER

The qualitative data was collected through interviews which were conducted with ten participants from the Covid-19 Critical Care Units. The data was captured using a digital recorder and then transcribed on a word document as researcher and participant responses. Participants' responses to each question were summarised. The participants were coded from number one to ten. The interview data was used to extract themes. The researcher identified six major themes and sub-themes for each of the six major themes which were presented in section 5.4. The major themes were human resources and material challenges influencing job satisfaction, motivational factors and influence on work performance, behavioural factors altering group cohesion and trust within the teams, emotional exhaustion due to workload, existence needs related to fear, anxiety of being infected and growth needs, self-esteem and self-actualisation during the Covid-19 pandemic.

The demographic factors and the responses from the interview questions were also captured and illustrated in table form according to the categories. The findings show that the various psychosocial factors during the Covid-19 pandemic on Saudi Arabian foreign national Critical Care nurses did influence their well-being and their performance both negatively and positively. Foreign national

nurses should be recognised for their tireless commitment to the management of Covid-19 patients within a critical care environment and motivation and ongoing appreciation plays a vital role in nurses' productivity creating a positive working environment. In the next chapter the findings of the study are discussed.

CHAPTER SIX
DISCUSSION OF FINDINGS

6.1 INTRODUCTION

The previous chapter presented the results of qualitative findings of the study. In this chapter, discussions of results are presented with reference to the research questions and objectives of the study. These discussions are presented in two sections and are aligned to two fundamental aspects of the study, namely Section A which focuses on the discussion of results based on the theoretical framework, the ERG Model and Section B which presents the discussion of results in relation to the objectives of the study.

6.2 SECTION A: DISCUSSION OF RESULTS BASED ON THE THEORETICAL FRAMEWORK THAT GUIDED THE STUDY

The Covid-19 virus is highly transmissible, but the source and route of transmission has yet to be determined. Critical Care nurses experienced great stress when they were fighting against Covid-19 with needs for health, safety, interpersonal relationships and related knowledge. Alderfer (1969: 142) proposed the existence, relatedness and growth (ERG) theory of humanistic needs on the basis of Maslow's hierarchy of needs. He believed that people have three core needs, namely a need for survival, a need for relationships and a need for growth and development. The purpose of this study was to use in-depth interviews to understand the psychological needs of foreign national Critical Care nurses working in extraordinary pandemic situations. This study also explored the content of their psychological and psychosocial needs from the lens of the ERG theory, to provide a perspective for interventions to alleviate the psychosocial and the psychological stress of foreign national Critical Care nurses at the front-line.

Developed out of the Maslow's hierarchy of needs, the existence needs relates to a person's physical needs such as food, clothing, and shelter, similar to Maslow's physiological and safety needs. Relatedness is concerned with the desire people

have for maintaining important interpersonal relationships. Growth relates to a person's needs of personal development. Unlike Maslow's theory, lower level needs do not necessarily have to be gratified for a higher level to become relevant. This implies that in a workplace, managers must recognise their employees' multiple simultaneous needs. The existence-relatedness-growth (ERG) theory is a psychoanalytic theory developed by American psychologist Clayton Alderfer. This theory is in fact a reformulation of Abraham Maslow's Theory of Needs. According to this theory, the needs are divided into three divisions rather than the five suggested by Maslow. Similar to Maslow's theory, satisfying one level of needs advances one towards satisfying the highest level of needs. But Alderfer also identifies a reverse process. According to the new theory, there is also a process of frustration stemming from the lack of ability to realise a certain level of needs. This frustration leads one to retreat to the attempt to provide a lower level of needs (Alderfer 1969:142).

This theory does not involve a "personality hierarchy" but rather three groups of needs that operate differently. Alderfer criticises the direct association that Maslow assumes between the urge to provide a need and motivation. The three groups of needs do not operate in a strictly hierarchical manner. A person might engage concurrently in satisfying needs from different groups namely existence needs– physiological needs and security needs. Relatedness needs which the need for social approval. Growth needs which refer to the need to develop personal skills that constitute a relative strength versus other individuals. The existence needs were mainly reflected in the health and security needs, whereas the relatedness needs consisted mainly of interpersonal needs, the humanistic concern needs and the family needs. Further to the theory, growth and development needs were reflected by the participants as a strong need for knowledge and understanding of the virus. Existence needs were the main needs reflected by the participants during the pandemic, with health, security and safety needs influencing each other. The humanistic concern needs were the most important of the relatedness needs; interpersonal and family needs were also growing. Discussion of the findings of this study, related to the three components of the ERG Model follows.

- Existence needs: physiological needs and security needs.

- Relatedness needs: the need for social approval
- Growth needs: the need to develop personal skills that constitute a relative strength versus other individuals.

6.2.1 Existence Needs

The existence needs is concerned with providing the basic material existence requirements of humans which may include physiological needs and safety. Existence is the lowest level of human needs which is concerned with physical survival and may include the obvious needs for food, water and shelter which can be satisfied through salary, fringe benefits, safer working environments and some measures of job security. According to Alderfers ERG theory, the three needs can operate simultaneously. The theory propounded a new dimension of needs known as 'frustration regression'. Accordingly, an individual tries to satisfy a lower order need, if he is frustrated with satisfaction of a higher order need. Therefore, unsatisfied higher order needs bring back the lower order need. Thus, the concept of need satisfaction arising out of frustration is the basic concept of ERG theory (Alderfer 1969:142).

Majority of the participants in the qualitative data collection expressed a sense of not existing because of the uncertainty of the virus and also not sure about their families, their will to live and the goals for the future .The existence needs were mainly reflected in health and security needs as discussed in Chapter five. Foreign national Critical Care nurses feared the virus and of becoming infected. Nurses also expressed security needs strongly related to family and community abuse during the pandemic in the Critical Care Unit. Physical health is a basic necessity required to overcome the pandemic and all respondents exhibited a strong need for maintaining health.

6.2.2 Relatedness Needs

This need of relatedness is basically human beings that are longing for connection to other people. They want to be related and engage with other people, to develop personal relationships and want to be cared for and to be loved. This need is related

to every human being who wants to be connected to or associated with other people within the circle. Relatedness needs equates to the social and external esteem needs such as relationships, engagement or the active involvement with colleagues, friends, families, and co-workers (Alderfer 1969: 162). Each individual has a social need, a need to develop social relationships with other people. These desires require interaction with others if they are to be satisfied, and they are aligned with Maslow's social needs and the external component of Maslow's esteem classification. Relatedness needs was expressed by the participants as commitment and involved in the interaction with other people and the satisfaction that they can bring in the form of emotional support, respect, recognition and sense of belonging. Participants believed that these needs can be satisfied with the job through co-workers and off the job through friends and family. Whether it's the ERG theory or Maslow's theory, making connections with others is highly emphasised. Majority of the foreign national Critical Care nurses expressed the need for job satisfaction and expressed that when they do not enjoy healthy relationships with their co-workers, they are not happy (Maslow 1943: 272).

The relatedness need was primarily manifested as a need for interpersonal relationships, a need for community concern and a need for affection. During the period of lockdown, the need for interpersonal relationships specially reflected the desire of clinical Critical Care nurses to communicate face-to-face with family members, colleagues and friends. The need for community concern manifests as nurses' need for care, help and support from department heads, the hospital and the outside world. The need for affection reflected their desire for family affection is stronger. Daily at work, they would want to go back home where they can feel close, connected and related to their family. Similarly, they tried building an environment where they can feel at home in a family environment. It is vital to observe those employees who work isolated from others and tend to not engage with people. Relatedness needs is therefore important to live a healthy life. Therefore, according to Alderfer (1969: 172), the relatedness needs consists mainly of interpersonal needs, humanistic concern needs, and family needs. Humanistic needs were the most important of the relatedness needs in the qualitative data collection.

6.2.3 Growth Needs

This is related to an intrinsic need, that all people have the inner desire for personal growth and development. This impels an individual to make creative or productive effects on him/her and the environment. Finally, there is the growth need which is an intrinsic need for personal development or self-actualisation as Maslow called it. It is an individuals' inherent propensity to feel connected to others, that is, to be members of groups, to love and care and be loved and cared for (Baumeister and Leary 1995: 495). According to Deci and Ryan (2000: 227), the need for relatedness will be satisfied if people experience a sense of communion and to develop close and intimate relationships with each other. Growth needs referring to the self-esteem and self-actualisation needs and this includes the need for personal growth and development which can be satisfied only by using one's capabilities to the fullest. Although Alderfer's ERG theory and Maslow's Needs theory goes hand in hand, Alderfer suggested that the existence, relatedness and the growth needs are not progressive

According to the theory, if an individual does not get enough growth opportunities, then they get demotivated and frustrated with their job. So instead of fulfilling such needs, they may regress to a lower satisfied need. This is known as the frustration, regression principle. An employee whose relatedness needs aren't satisfied or met will tend to regress to further satisfy their existence needs. It is therefore important for managers or leaders to look for their employees' unsatisfied work-related needs. Focusing on only one need may not fully motivate them. Therefore, employees whose growth needs aren't being met in the workplace may try to socialise more to gain self-esteem. In this situation, one should provide them with more growth and career opportunities. The growth needs were mainly reflected as a strong need for knowledge. Interpersonal and family needs were also growing. The growth need was manifested as a strong need for knowledge about Covid-19 prevention and control, especially from authoritative reports.

6.3 SECTION B: DISCUSSION OF RESULTS BASED ON OBJECTIVES THAT GUIDED THE STUDY

The discussion of results in this section is focused on the four objectives that the researcher identified at the beginning of the study towards achieving the aim of the study. These objectives were to:

- To identify factors that influence foreign national Critical Care nurses' motivation and their performance that is related to their work in the Critical Care Units whilst caring for Covid-19 patients.

- To establish the psychosocial effects on the human needs in an organisational setting amongst the foreign national Critical Care nurses during the Covid-19 pandemic.

- To determine the various psychosocial factors influencing the Covid-19 working environment and the professional growth and development opportunities of the foreign national Critical Care nurses.

- To determine the behavioural factors influencing foreign national Critical Care Nurses, such as turnover and transfer from one unit to another due to shortages of Critical Care nurses during the Covid-19 pandemic.

6.3.1 Objective 1: To identify factors that influence foreign national Critical Care nurses motivation and their performance that is related to their work in the Critical Care Units whilst caring for Covid-19 patients

There are some needs of the workers that can influence their work motivation. According to ERG theory by Alderfer (1969: 172), employees' motivation at work is impacted by three factors. The first factor is (a) existence and it refers to the security and physiological needs of the worker. This also includes all material needs of the workers. The second factor is (b) relatedness which refers to the self-esteem and the social needs of the workers. This also includes the relationships of the workers with family, friends, co-workers and employers. The third factor is (c) growth which refers to the self-actualisation of the workers. This includes the desires of the workers to be more productive and quality care process and outcomes depends on nurses' performance as the frontline in efforts to control and care in the era of the Covid-19 pandemic. This makes Critical Care nurses a valuable human resource or employer

asset because they can maintain the standards of quality of the hospital when the nurses' performance is good or damages the hospital's reputation when the nurse's performance is not safe, directly impacting on the safety and quality of the patient-care outcomes.

Nurses' performance can be influenced by various aspects, starting from the organisational systems and structures in developing potential and opportunities through adequate training programs and attachments to develop and master the field of skills at work to motivational factors in doing their work (Sendawula *et al*. 2018: 12). Nurse training programs should include assessing and educating patients, providing care, supervising and coordinating the care process. In the present study, the findings were very evident, within the critical care environment, of the organisational and the level determinants of Critical Care nurses motivation were related to the environment and the general healthcare systems structures (Nugroho and Renjana 2020: 149). Organisational work environment, both social and physical, were reported as determinants of the foreign national Critical Care nurses motivation in the Covid-19 unit.

The organisational social environment, specifically healthy professional relationships with colleagues, transformative leaders and supportive committed supervisors and management were determinants of the nurses' motivation (Andriani and Widiawati 2017: 83). Barriers to motivation reported in studies included a lack of or inadequate monetary support, favouritism, critical shortage of skilled healthcare professionals leading to heavy workload and unrealistic expectations from management and government. Likewise, some participants perceived to be treated unfairly with no appreciation and poor management were reported as demotivating factors during the peak of the pandemic of the first wave of the deadly virus, while some of the participants expressed heavy workload to be associated with job burnout and impacting on their performance. Some of the key factors that influenced foreign national nurses' motivation and their performance during the care of Covid-19 patients in the Critical Care Unit include: workload; shortage of skilled and competent nurses; inadequate training and no development opportunities, shortage of supplies

and incentives and no reward and recognition for risking their lives to manage the pandemic and exposing their health to this crisis.

Performance and motivation were key elements expressed by the participants as discussed in Chapter Five from the interviews. Below, the two factors aligned with ERG theory, namely motivation and performance will be discussed. Motivation can emanate from individuals with a passion and desire to work and produce positive results or outcomes. This kind of motivation is self-driven by individuals in order to elevate their feelings to accomplish or achieve. However, in the extrinsic motivation, an external factor such as a reward or some recognition can be used to elevate the employee's moral and desire to work and be more productive during a pandemic (Zinnen *et al.* 2012: 327). As in a normal situation, employees work in exchange for compensation either monetary or recognition for their work commitment, but how far they go depends on how motivated they are. According to , some individuals desire to perform over and beyond their expectations and provide services to patients, with the mandate to do good which is enough as a factor to motivate them. Performance at work can be related to the nurses' remuneration which the nurses may not have much control of that reward as it is external.

Apart from monetary rewards, there are various other factors that are external such as promotions internally, job security and salary increment or risk allowances that may give meaning to employee's motivation. Covid-19 did not create growth for such opportunities due to economic constraints during the pandemic. Therefore, for many organisations to continue existing and retaining its workforce, they must keep on working on workforce retention strategies that can help in motivating employees. Motivated employees tend to have a sense of belonging and the loyalty to the organisations and are always working hard to be associated with the results of their labour. Appreciation and support does play a vital role in nurses' motivation. Motivation has positive effects on employees as individuals strive to achieve and be innovative because they believe it will benefit the organisation (Yang and Yanyuan 2010: 63). A motivated employee is easy to be retained, hence preventing staff turnover and its financial implications. It also promotes a sense of job security

amongst employees. The two factors that the participants expressed strongly during the interviews were related to work performance and work motivation as discussed below.

6.3.1.1 Nurses' Performance

According to Luthans, Youssef-Morgan and Avolio (2015: 110-121), organisational performance is influenced by individual performance, while individual performance is influenced by individual job satisfaction, so that individual nurse job satisfaction has a big effect on hospital performance. The nurses' work-performance and outputs will be high if at the time nurses feel satisfied with their jobs. Workload is closely related to job satisfaction, and in the end will affect the performance of an individual. Workload can be perceived subjectively, depending on a person's cognitive, affective and psychomotor skills and character. The task of a manager is to find effective ways to manage human resources so that the existing workload can be processed properly and wisely by human resources (Andriani and Widiawati 2017: 83).

The work environment is also closely related to job satisfaction. Management experts argue that the notion of performance is the work performance factors of the implementation and goals of the organisation carried out by superiors and employees who work in the organisation so that organisational goals are achieved (Nugroho and Renjana 2020: 149). Siswoyo, Nur'Aini, and Md Saa (2018: 1196) alludes that the individuals' attitudes at work or their performance are formed from several components consisting of evaluation aspects and strong feelings that can guide behaviour (Siswoyo *et al*. 2018:1196).

The performance can serve as a benchmark for improving health services structures and processes and to maintain the quality and standards of health services provided to healthy and sick patients (Tummers, van Merode and Laandewerd 2019: 559). Nurses' performance needs should be evaluated to maintain quality, standard care practices and to determine and plan their career development strategies and achieve organisational goals, especially in the era of the Covid-19 pandemic. (Darma Yanti *et al*. 2020: 155). The direct influence of leadership, workload, work

environment and nurse satisfaction on nurse performance findings shows that leadership and nurse satisfaction were key elements that the participants expressed in relation to their nurse performance. Conscientiousness is associated as the strongest driving force of the work role performance in organisations (Ellershaw *et al.* 2016: 244). Thus, in public health emergencies, such as Covid-19 pandemics, it is very important to mobilise the enthusiasm and conscientiousness of Critical Care Nurses. The government or healthcare organisations should try their best to provide safe working conditions for nurses, while offering financial subsidies and rewards to improve their work performance under these challenging situations. The knowledge of Covid-19 is limited, due to the sudden spread of the disease with minimal scientific evidence of the mode and spread but it is highly contagious(Darma *et al*. 2020: 155).In order to render quality care to patients and protect nurses with such sudden pandemics, the training of the nursing team's capabilities should be strengthened. This can be done through proper training plans or programs for the Covid-19 pandemic.The training content or program should be rationally set, and multimedia network platforms should be used to promote the participation of all nurses in training and improve the knowledge and skills. The majority of the participants expressed that motivation played a key role to their performance and management support was one of the elements that was absent during the initial phase of the pandemics.

However, as foreign national nurses became more familiar with the Covid-19 pandemic and relief from the fear of the disease , they received more support from the management. Support from other allied workers was absent and was perceived as not fair to them as doctors avoided interaction with patients and expected the nurse's to be their voice for the patients in the Critical Care Unit. For the future of such pandemics, organisations should create policies and work structures on managing such situations to improve work motivation and work performance. Recommendation was to have adequate training plans and workforce planning to manage such surge of patients for any type of pandemic for the future which will improve nurses work performance.

6.3.1.2 Nurses Motivation

According to Nugroho and Renjana (2020: 149), motivation can be defined as a psychological process that generates energy within, encourages, and determines behaviour in acting in a certain way, initiates, implements, and maintains these activities towards goals. Ethical tensions and any dilemmas posed by the Covid-19 pandemic and related care provisions can impact nurses' work motivation and drive to be productive. It is important to evaluate Critical Care Nurses' motivation to work during the Covid-19 pandemic (Rosa *et al*. 2020: 36).There are various theories related to motivation, and they mostly give a relation or influence the outcomes of employee job satisfaction. Maslow's Needs Hierarchy theory is rigid as it assumes that the needs follow a specific and orderly hierarchy and unless a lower-level need is satisfied, an individual cannot proceed to the higher-level need. On the other hand, Alderfer's, ERG theory of motivation is very flexible as he perceived the needs as a range or a variety rather than perceiving them as a hierarchy. ERG theory is more consistent with the knowledge of individual differences among people (Alderfer 1969:142). This need includes a variety of intrinsic factors and job satisfaction, which will impact on a strong level of motivation resulting in good performance and productivity. An excessive work load and work demand during the Covid-19 pandemic affects mental health and well-being and decreased work engagement (Gómez-Salgado *et al.* 2021:1016).

Efforts must be implemented to ensure a stable work engagement of nurses during the Covid-19 pandemic is some ways to increase the motivation of foreign national Critical Care Nurses. The increase in the motivation factors is by recognising and rewarding the dedication of Critical Care Nurses as front liners and paying more attention to proper infection control and physical discomfort caused by shortage of PPE. Further interventions by leaders should increase the confidence in treating patients with infectious diseases (Zhang *et al.* 2021:1594). Participants expressed that if hygiene factors which are factors outside the job itself, such as working conditions, salary and incentive pay are inadequate, they become dissatisfied with the work. Instead of relying on the hygiene factors, the manager interested in creating a self-motivated workforce should emphasise job content or motivation

factors as fundamental concepts. Managers tend to do this by enriching worker's jobs so that the jobs are more challenging and by providing feedback and recognition (Dessler *et al*. 2011: 433).Rewards and recognition, as the main factor of motivation, can also encourage retention within the organisation, and the broader employment relationships and the social exchanges are significant. The motivation is to provide employees with sureties of job security, safe and healthy working condition, loyalty and sense of belongingness to the organisation, as well as adequate workforce. The participants' assumption that people want to work in a safe and pleasant work environment with a fair and understanding boss or leaders is reflected by Sayles (2017: 200-231),who notes that, happy individuals will work harder and be more productive under normal and crisis situations because of increased job satisfaction.

The study findings as discussed in Chapter Five reveal a very important aspect of nurses' willingness to manage high-risk patients. Some participants expressed less willingness to care for patients with Covid-19 due to many reasons but the most common was related to fear of being infected and lack of knowledge for the virus and feeling of no support which impacted or influenced their motivation. The organisations systems needs to be aware that the nurses who provide direct care to patients with Covid-19 are high risk for exposure and would have higher risk allowance than those who indirectly provide care for patients with Covid-19. Occupational risk allowances should be implemented for the near future for all nurses working with infectious diseases and this will create the willingness to work with these categories of patients for the future (Andriani and Widiawati 2017: 83). A further qualitative research on the motivation strategies and the associated theories is recommended for pandemic situations from a global perspective.

6.3.2 Objective 2: To establish the psychosocial effects on the human needs in an organisational setting amongst the foreign national Critical Care Nurses during Covid -19 pandemic

The psychological needs of nurses caring for Covid-19 patients were investigated from the perspective of the ERG theory. It was found that needs for existence, relatedness, and growth coexisted among clinical nurses and affected each other.

This is also consistent with the idea proposed by the ERG theory that "an individual may have more than one need at the same time" (Alderfer 1969: 142). The interviews showed that clinical nurses have needs at different levels. This is consistent with the idea that even if a person's needs for existence and relatedness have not been fully met, he can still work toward developing the need for growth, as stated by the ERG theory. The interviews showed that humanistic community concern for nurses is necessary, especially in the extraordinary circumstances during the pandemic. Establishing psychological coping task forces with the help of the nursing department and psychological experts, together with the setting up psychological support platforms to provide community support for healthcare professionals, may contribute to fulfilling the needs of nurses to protect their mental health (Chen *et al* 2020:507). Though face-to-face communication reduced during the pandemic, the needs for interpersonal relationships and affection in clinical nurses can be enhanced through other ways for emotional expression, such as colleagues encouraging each other during work (Harris, Winskowski and Engdahl 2007: 150).

These needs encompass a wide range of human desires. This can be from basic, tangible needs of survival to very complexed, emotional needs surrounding an individual's psychological well-being and behaviour. Abraham Maslow was a social psychologist whose interest was in a broad spectrum of human psychological needs rather than on individual psychological problems (Maslow 1943: 272). Depicted in a pyramid as discussed in chapter three, the theory organises the different levels of human psychological needs and the physical needs in order of importance. The needs related to social, which includes love and sense of belongingness. Most of the participants who have been facing the physical health-wise effects of the Covid-19 mentioned mainly about the physical fatigue and pain-related symptoms such as chronic tiredness, sleepiness, headache, sore or aching muscles, muscle weakness. It is worth saying here that most of the statements articulate not only the physical health related symptoms but also the mental health related symptoms. Humans need to feel a sense of belongingness and acceptance, whether it comes from a social groups or a small network groups of family and friends. Without these attachments,

people can become vulnerable to psychological difficulties such as loneliness, social anxiety, and depression (Lai *et al* 2020: 3976). As expressed by the majority of the participants that such mental health conditions, when severe, can impair a person's ability to address basic physiological needs such as eating and sleeping. Considering the Covid-19 crisis, it can be said that the isolation, quarantine, and the physical distancing brought a burden for those pre-existing mental health conditions, and the daily stressors to be exacerbated or to become worse (Lund *et al.*2018: 357). The findings from the interviews mainly focused on the ability to provide in-depth and enriched evidence regarding the psychosocial capacities of foreign national nurses concerning their skills and strategies to cope with psychological, financial, and physical distress caused by the Covid-19 pandemic conditions. In virtue of this, the methodology of the study was adopted through scrutinising the perceptions of the nurses working in the Critical Care Unit during the Covid-19 about the pandemic-imposed conditions, their strengths, and their coping skills as discussed in chapter five. Psychosocial factors were identified during the data collection and many variables were identified from the interviews.

The findings showed that quantitative demand, emotional demand, quality of leadership, work-family conflict, burnout, stress, and job satisfaction were some of the psychosocial factors that were expressed by the participants It was also revealed that many participants expressed a lack in sense of belonging and the role clarity with their job. The need for well-being programs and support were the main concerns from the Critical Care Nurses and this repeatedly was the need from foreign national nurses. Management should focus on the mental well-being of the nurses and design programs for pandemic situations.

6.3.3 Objective 3: To determine the various psychosocial factors influencing the Covid-19 working environment and the professional growth and development opportunities on the foreign national Critical Care Nurses.
Psychosocial factors in relation to health and human development have given rise to rapid changes in the psychosocial environment at workplaces and in the reactions of

the foreign national nurses during the Covid-19 pandemic. Exposure to psychosocial stress at work has been associated with a number of health problems as expressed by the participants in the findings discussed in chapter five namely, behavioural disorders and psychosomatic disease. Little attention has so far been paid, by those concerned with occupational health, to determining and controlling the psychosocial factors at work that lead to adverse health effects. The mental health problems of workers have continued to be regarded from the point of view of established psychiatric disorders requiring referral for treatment, and rehabilitation (Giménez, Prado-Gascó and Soto-ubio 2020: 566). Work arrangements and conditions have evolved considerably, bringing new psychosocial challenges for the health and well-being of nurses whether in the frontline, or in essential services (Niedhammer and Chea 2003: 509). The risks associated with Covid-19 can also be exacerbating with existing vulnerabilities. Increased workloads and work demands, longer working hours, and reduced rest periods are a concern for most of the participants as expressed during the interviews. In addition, they were worried about getting infected at work and passing the virus to family, friends, and others at work.

The findings from this study recommend providing employers and managers with key elements to consider when assessing psychosocial risks and implementing preventive measures to protect the health and well-being of Critical Care nurses in the context of the Covid-19 pandemic. Lack of clarity about the best and safe practices to limit the risk of occupational exposures to the coronavirus, together with shortages of personal protective equipment (PPE) or surgical supplies, can also increase the anxiety among nurses (CSTS, 2020). The fear of the contagion can be reduced or alleviated if appropriate measures are taken and nurses are kept well informed and trained adequately for such pandemics. The prolonged use of such heavy PPE can accelerate and add to the fatigue, mental and physical exhaustion and dehydration through increased sweating, and this can cause claustrophobia and behavioural changes (Heymann and Shindo 2020: 542). In addition, PPEs can cause physical and psychological distance with co-workers and patients, creating feelings of isolation and discrimination as eluded in the data collection chapter. All these factors can add to the workplace stress and thus increase stress levels and lead to

anxiety reactions. If not appropriately assessed and managed, psychosocial health risks may increase the workplace stress levels and may lead to physical and mental health and behavioural problems. Psychological responses may include low mood disorders, low motivation, exhaustion, anxiety, depression, burnout and suicidal thoughts (Arslan *et al*. 2020: 17). The majority of the participants expressed a wide range of physical reactions can also occur, such as digestive disorders, changes to appetite and weight, dermatological reactions, fatigue, cardio-vascular disease, musculoskeletal disorders, headaches or other unexplained aches and pains. Poor psychosocial working environments may contribute to negative impacts on workplace productivity, associated with increased turnover, absenteeism and presenteeism, lower job engagement and reduced job performances with respect to both the quality and quantity of work tasks (Yıldırım and Solmaz 2020: 9). The accumulation of stress factors and fatigue can reduce the accuracy of work output and increases the possibility of human errors both clinically and technologically, heightening the risk of work injuries and accidents. To ensure and sustain an efficient management of psychosocial risks, management and their representatives should be involved in the whole process to alleviate such work related factors during such pandemics (Marinaccio *et al.*2020: 818).

They should actively participate in the identification of hazards and collaborate in the development and implementation of preventive and control measures. In the specific situation of the Covid-19 outbreak, the potential sources of exposure to the novel corona virus should be identified, considering all work areas and tasks performed by workers. The process should also aim to identify any hazard that may arise due to the measures and new work processes and arrangements adopted to prevent contagion (ILO, 2020). Psychosocial risk factors, namely long working hours, reduced rest periods, increased workload and pressure, violence and harassment, ergonomics, chemical and other hazards should all be taken into account. In epidemic contexts such as the current one, external factors affecting mental health and well-being should also be considered, such as fear of being infected, or losing one's job and experiencing lower quality of life and social isolation.

6.3.4 Objective 4: To determine the behavioural factors influencing foreign national Critical Care Nurses, as turnover and rotation from one location to another due to shortage of Critical Care Nurses during the Covid -19 pandemic.

The psychological and behavioural manifestations of stress may take different forms and be of varying intensity. Sometimes there are no outward manifestations, but those in distress suffer internally. At other times clearly observable, even dramatic, emotional and behavioural expressions of distress become apparent (Nashwan *et al*. 2021: 695). Several studies suggest that high turnover can be associated to staff and patients outcomes (Khan *et al*. 2019: 24).High turnover rates in a hospital unit may lead to increased demand for overtime, fatigue and work related stress, as well as low job satisfaction, among the remaining staff (Hayes *et al.* 2012: 887). It can also alter the continuity of care being delivered, leading to the decreased quality and safety of patient care, with potentially increased rates of medication errors, falls or other nurse-sensitive outcomes including healthcare-associated infections. Among the many Critical Care Nurses of all nationalities, the majority have considered leaving the profession entirely because of the pandemic.

Due to this, the remaining nurses will be over worked dangerously with, caring for more ill patients at once. The nurse patient ratio which should be 1:1 will sometimes be 1:2 and 1:3 (Royal College of Nursing, Hospital Policy 2020). Covid-19 patients are particularly demanding and of high specialised needs, especially those on respirators who may require nursing care around the clock with high acuity. To understand such reactions, three crucial steps in the gradual development of job stress must be recognised, namely, perceived threat, manifestation of coping, and occasional failure to cope (Khan *et al*. 2019: 32).

In this chapter the various means of coping that people adopt when under stress were introduced. The main emphasis is on the psychological and behavioural indicators of unsuccessful coping as a result of excessive situational demands, or limitations on an individual's own resources (Seale *et al.* 2009: 30). It is not intended to make a comprehensive review of the subject, but rather to discuss such crucial

issues from the point of view of occupational health, and to present a few examples based on empirical findings. Reactions to stress that relate primarily to the individual are discussed first, followed by the behavioural manifestations of stress that have direct relevance for the work of the organisation that employs him (Yang *et al.* 2021:157). During the Covid pandemic, absence was mainly due to mild illness, fatigue, job strain, or for a private reason is, however, to a large extent a matter of choice, depending on many factors both within and outside the working place, such as local and cultural permissibility, personal considerations in regard to fear, no compensation for risk allowance (Labrague and De Los Santos 2020: 1653). From the findings of the study repeated evidence indicates that absenteeism and turnover are related to job dissatisfaction. Participants expressed the low level of job satisfaction, in turn, is determined by a multitude of work-related factors namely work demand, high bed occupancy and shortage of staff during the pandemic. Majority of the participants also expressed concern for unskilled cross trained nurses and this created an unsafe environment and more responsibility in the Critical Care Unit.

In addition, the findings could help and guide hospital decision makers and leaders facing high staff turnover situations, by informing them on the main factors on which they may act to try and reduce turnover intention among the staff. In particular, two factors of interventions came out of the study qualitative analysis: first, ensuring that hospital staff is supported through adequate staffing and reward and recognition and second, enhancing social support among the staff through employee well-being programs. The former possibly requires increasing the staff-to-patient ratio. The latter may notably be achieved by implementing solutions that enable healthcare workers to effectively and collaboratively work together and facilitate social communication and interaction.

6.4 SUMMARY OF CHAPTER

In this section, the study findings were discussed in relation to the theoretical model and the objectives of the study. Findings which are aligned with Alderfer's ERG theory verify that the existence, relatedness, and growth needs coexist in foreign national Critical Care Nurses. This discussion was also related to relevant literature

findings based on the topic of inquiry. In work organisations, where adequate psychological support is provided, nurses experiencing work related stress such as work overload or fatigue and burnout and other mental health problems are more likely to seek, and receive, appropriate help and emotional support through group therapy and employee well-being programs. The objectives of the study were also discussed in detail and cited literature sources to support the findings and discussion. In the following chapter the conclusions of the study, strengths and limitations, personal journey of the researcher and the recommendations for future research on employee well-being related to psychosocial factors affecting foreign national Critical Care nurses are presented.

CHAPTER SEVEN
CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

7.1 INTRODUCTION

In this chapter a summary of the research findings, the conclusions, limitations and recommendations for nursing administration, hospital leadership and further research will be presented. Based on the results of the study. The aim of the study was to explore the psychosocial effects of the Covid-19 pandemic on Saudi Arabian foreign national Critical Care Nurses. This chapter also specifies the limitations of the study to prevent any generalisation of the conclusions and/or the recommendations. Conclusions based on the results of the study will be presented and recommendations made for the implementation of an employee well-being program during pandemics for foreign national Critical Care Nurses focusing on various psychosocial factors.

7.2 LIMITATIONS OF THE STUDY

Recent studies on a similar research topic, related to psychosocial factors amongst foreign national Critical Care nurses during Covid-19 pandemic in critical care environments, are not publicly available in Saudi Arabia. However, the researcher was able to explore the concept of psychosocial factors and the impact on Critical Care nurses through the various websites and journal articles within the Gulf areas. In Saudi Arabia, there are no studies focusing on the impact of psychosocial factors during the Covid-19 pandemic on foreign national Critical Care nurses in a critical care environment. Most of the studies are related to infection control practices and prevention, shortage of supplies, knowledge deficit ad challenges of the human resources factors. Given these limitations, the results presented here should be the first step towards implementing a managerial and leadership support structure with the view of an employee well-being program for foreign national Critical Care nurses in general. This model still needs to be implemented, tested, and refined in accordance to psychosocial factors. The limitations that affected the study involved the participants' behaviour during face-

to-face interviews. This was caused by the researcher's presence which was evident when participants hesitated to respond. All participants were duly assured that the researcher will not influence any answers or responses and that they should be free to participate or withdraw from the study at any given time. An additional limitation that was faced by the researcher, was the timeline for conducting the current research, which was governed by the university's policies and protocol.

In the qualitative data collection of this study, a purposive, non-probability sampling strategy method was used to recruit nurses to participate in the semi-structured interviews. The participants were foreign national nurses from a group of Covid-19 Critical Care Units of one hospital and did not include nurse managers and charge nurses who were not directly involved in direct clinical patient care. This could potentially limit the generalisability of the findings to managers in other clinical areas of the hospital, regarding their perceptions of the psychosocial factors influencing nurses in general during Covid-19 pandemic. Despite some of these limitations, the following conclusions are drawn, and recommendations made, based on these conclusions.

7.3 CONCLUSIONS DRAWN FROM THE STUDY

The Covid-19 pandemic, however, confronted foreign national Critical Care Nurses within even greater, unprecedented, challenge and exposed them to these risk factors to great extent, most likely having a profound psychological impact. Critical Care Nurses had to deal with numerous end-of-life decisions, shortage of critical care beds and adequate Personal Protective Equipment (PPE), the fear of getting infected or infecting others and visiting restrictions for family. In the qualitative approach of the study, the researcher identified key responses from the participants on how psychosocial factors impacted foreign national Critical Care Nurses whilst caring for Covid-19 critically ill patients. The Covid 19 pandemic has placed healthcare professionals across the world in an unprecedented situation, having to make impossible decisions and work under extreme pressures which

may be difficult for some to handle the situation properly The qualitative data aimed to achieve the objectives of the study namely:

- To identify factors that influence foreign national Critical Care Nurses motivation and their performance that is related to their work in the Critical Care Units whilst caring for Covid -19 patients.

- To establish the psychosocial effects on the human needs in an organisational setting amongst the foreign national Critical Care Nurses during Covid -19 pandemic.

- To determine the various psychosocial factors influencing the Covid-19 working environment and the professional growth and development opportunities on the foreign national Critical Care Nurses.

- To determine the behavioural factors influencing foreign national Critical Care Nurses, such as turnover and transfer from one location to another due to shortage of Critical Care Nurses during the Covid -19 pandemic.

Notably, the aim of the study was to explore the psychosocial effects of Covid-19 pandemic on Saudi Arabian foreign national Critical Care Nurses, based on the study findings. The conclusions drawn from the study will be presented in the conclusions and those linked to the objectives will be presented as a brief discussion.

7.4 Qualitative Conclusions

The results pertaining to this study were discussed in depth in Chapter 5, with the major themes and sub-themes illustrated in Table 5.4. Six major themes which emerged during the analysis of the findings which were further categorised into sub-themes. Major themes that emerged from the study include the following:

1. Resource challenges influencing job satisfaction of nurses

2. Staff motivation and its influence on work performance whilst caring for Covid-19 patients

3. Behavioural factors affecting group cohesion teamwork amongst staff working in a Covid-19 Critical Care Unit

4. Increase in workload and resultant emotional exhaustion of staff.

5. Existence, safety, and psychosocial needs of staff in the Covid-19 unit.

6. Altered growth needs, self-esteem and self-actualisation of staff whilst being exposed to Covid-19 patients.

The conclusions, based on the findings of the study, revealed that during the Covid-19 foreign national Critical Care Nurses experienced various psychosocial factors whilst caring for critically ill patients during the pandemic. Participants perceived the psychosocial factors to be related to many factors, namely the work demand, from surge of positive patients, shortage of human resources, lack of support, behavioural challenges related to fear of the virus and of being infected, lack of team work, altered communication and lack of knowledge about the virus whist working in a multicultural diverse environment.

The foreign national nurses expressed that the fear of not understanding and limited knowledge of the virus added to their work stress and mental health during the first wave of the pandemic. The conclusions drawn are also based on the results and the findings of the study, which revealed that inadequate support from the managers exposed the foreign national Critical Care Nurses to verbal and physical abuse from family members and their team members. The fear of the Covid-19 created conflicted emotions amongst the teams and this aggravated the working environment . The most important psychosocial risk factors identified in the current study included work-family conflict, stress, emotional needs, burnout, job satisfaction, and the quality of leadership. In the same vein participants also showed that emotional needs, stress, depression, and anxiety are among the challenges that the healthcare workers might face during the Covid-19 pandemic.

Participants also shared their own personal experiences of long working hours, which affected their work performance and contributed to the decreased productivity and job satisfaction and they were demotivated. There were mixed responses to the interview questions from many of the participants related to, workplace safety, fear of becoming infected and no work-life balance which could be related to fear death from the virus and behavioural changes. The high demands of the work and the shortage of staff and the lack of support during the surge of critically ill patients were the main factors expressed in relation to job satisfaction and work motivation. High patient acuity and low nurse patient ratios were one of the sub-themes. Participants revealed that the Covid-19 Critical Care Unit work environment is a highly pressurised environment and nurses have grave concerns regarding staffing shortages and other resources such as PPE during the Covid-19 pandemic. The findings also demonstrated that work-related psychosocial factors, including quantitative demands, emotional needs, work speed, and role conflict were related to nurses' mental health and these psychosocial factors produced more stress and job burnout among foreign national Critical Care Nurses.

This appeared to create a barrier between the job demands, job satisfaction, work motivation and the existence and relatedness factors. The need for an and comprehensive structured support programs for foreign national nurses form any pandemic is very vital to support nurses with a well thought mental health well-being programme for such psychosocial factors as expressed by the participants in chapter five and this was advocated by the participants to support nurses emotionally and psychologically, whilst giving them a sense of belonging within the stressful environment.

7.5 RECOMMENDATIONS OF THE STUDY

Recommendations for the study stem from the findings and discussions of the study as presented in Chapters Five and Six. It is suggested that managers of the organisation focus on the implementation of employee well-being programmes

during such pandemics and focus on mental health and well-being and social support during such crisis. Recommendations that the researcher proposes are:

- Recommendation 1: The implementation of a managerial framework that explicates the psychosocial factors and health and well-being among the foreign national Critical Care nurses.
- Recommendation 2: Management commitment and accountability for the implementation of the programmes.
- Recommendation 3: Training and education on Covid-19 pandemics.
- Recommendation 4: Human resource strategy/Staffing and retention during surge of patients.
- Recommendation 5: Building sustainable team work and support structures during the pandemics
- Recommendation 6: Future research.

7.5.1 Recommendation 1: The implementation of a managerial support framework that explicates the psychosocial factors and health and well-being among the foreign national Critical Care Nurses.

The Covid-19 outbreak is a unique and unprecedented scenario for many health care workers, particularly if they have not been involved in similar situations. Worries about patient care, adequacy of protection, long working hours, inadequate access to basic needs, stigma due to the risk of infecting others and separation from families can lead to severe psychological distress among them. Work-family conflict was recognised as one of the most important psychosocial risk factors in the present study. In this line, the results of a qualitative study on healthcare workers in KSA in the Covid-19 Critical Care Units showed that conflict with family members is one of the important psychosocial factors for healthcare workers in the Covid-19 pandemic, where the majority of families have opposed the presence of healthcare workers at their workplace. A consistent finding from the study showed that the Critical Care Nurses expressed that team cohesion horizontally between colleagues and vertically between leaders and their teams was very much aligned with altered behavioural and mental health and well-being

during the pandemic. Therefore managers and leaders can do much to support nurses in their teams and organisations with support interventions during the pandemics. Findings also showed that with informed guidelines and clear regular and honest communication is key as well, in ensuring access to physiological and safety needs. It is also important that senior nurses seek support for themselves, so that they have the capacity to support others and are able to role model good self-care.

Opportunities to process decisions and access to a reflective space are particularly important for senior nurses, where they can think through the difficult decisions they are having to make in response to Covid-19 challenges. They will need their nursing and healthcare teams and peers to lean on during the pandemic. Buddying or seeking a respected mentor for confidential peer support is therefore important. Social support is an important factor associated with mental health. There are various types of social support: structural, functional, emotional, instrumental, material, and informational. The managers and the leaders of the hospital and the Covid-19 units can exert an important role in providing the necessary conditions for foreign national nurses to improve the level of resilience and support.

Hospital administrators could implement a training intervention that provides nurses with information about the condition of the pandemic exposure and prevention of infectious diseases. Social support is an important element in health maintenance. Built through social relations in the workplace, is a factor of great importance in the workers' health disease process, either from the institutions or from the relationship among employees. Low levels of support can join harmful manifestations and negative effects to health and well-being of nurses. The findings from the study showed that the lack of support in the workplace made the nurses in the Critical Care Units more prone to cardiovascular disorders, stress, physical and emotional exhaustion Some of the recommended strategies for support during Covid-19 are discussed below:

- Identify and understand the needs of employees both with respect to their work related responsibilities as well as private challenges they might be facing and jointly elaborate practicable solutions

- Maintain a high level of transparency and, when possible, actively involve employees in the development of measures to respond to the crisis.

- Develop and make use of incentives that keep your team motivated, such as more flexible schedule, recognitions among the team, and even financial incentives when the company reaches a positive cash flow

- Ensure that staff are aware of where and how they can access mental health and psychosocial support services and facilitate access to such services.

- Ensure that good quality communication and accurate information updates are provided to all staff.

- Partner inexperienced workers with their more experienced colleagues. The buddy system helps to provide support, monitor stress and reinforce safety procedures.

- Stay connected and maintains your social networks. Try as much as possible to keep your personal daily routines or create new routines if circumstances change. If health authorities have recommended limiting your physical social contact to contain the outbreak, you can stay connected via telephone, e-mail, social media or video conference

- During times of stress, pay attention to your own needs and feelings. Engage in healthy activities that you enjoy and find relaxing. Exercise regularly, keep regular sleep routines and eat healthy food.

- Reconsider and reflect on potential adjustments of your leadership towards a more horizontal and decentralised approach, e.g. introducing results based management approach.

- Provide clear guidance, facilitate access to relevant information and ensure that communication can run smoothly and free of disruptions.

- Management to create well-being programs for nurses as a group therapy to overcome fear of the disease, death and also comfort for those grieving for their loved ones.

- Pay attention to staff who may be particularly vulnerable due to pre-existing experiences or mental health issues, previous traumas or bereavements, their own physical health, or concurrent pressures and loss. Think about how to best monitor these staff and put extra support mechanisms in place for them.

From the findings, nurses expressed the need for belonging which reflected the desire to feel and to be connected to others and to feel valued, respected and supported in teams and organisations and to care and be cared for, in those contexts. It also captures the importance of working in nurturing cultures and climates that reinforce a sense of relatedness: having a clear, enacted and shared vision focused on the delivery of high quality and compassionate care; aligning all efforts around that vision; creating commitment through leadership and management that ensures trust, motivation and positivity; and building effective team and inter-team working. This means ensuring inclusive and compassionate leadership at every level. Belonging can be nurtured by inclusive leadership and management behaviours that demonstrate trust and model compassion, as opposed to focusing on control and maximising productivity compassionate and inclusive leadership, and show how these can be developed to foster cultures of high-quality, continually improving and compassionate care and support, both for patients and for staff. In addition, the uncertainties about the pandemic's implications and the possible occurrence of new waves of contamination should prompt leaders to plan measures that could be adopted in the event of future outbreaks.

7.5.2 Recommendation 2: Management Commitment and Accountability towards workload demand and well-being of foreign national Critical Care Nurses during Covid-19 pandemics

As the world struggles with the coronavirus pandemic, employee and organisational productivity may decline due to the fear and anxiety of healthcare workers in various organisations. It is expected that managers of health-related organisations, social, economic, and cultural organisations use the results of this

study to identify factors affecting the organisational and social commitments of employees and strengthen them. The identification of good practices that have been successfully implemented in other organisations can help leaders to better manage the crisis and make decisions. These practices essentially revolve around four interdependent themes: risk identification, planning of organisational responses, human resources management, and the application of security measures.

Assessing the level of risk for different categories of employees is also considered an essential practice in order to safeguard the health of the most vulnerable individuals and to put in place measures tailored to each situation, the adaptation of human resources management practices appears to be essential, particularly for organisations most exposed to the risk of contamination. The measures mentioned include the development of internal skills to manage the pandemic through staff training or the consultation and recruitment of health experts. Majority of the participants as discussed in chapter five expressed the deficiency in the management during the Covid-19 pandemic. Nurses believed that managers were not visible and this created a hostile environment and mistrust with the organisation. Consultation with employees and consideration of their expressed needs ,namely the lack of protective equipment, identification of risks, training and information needs, return-to-work plans, inappropriate behaviour are considered essential in order to promote effective measures and reduce stress at work.

Management needs to ensure that there are good handover and rest periods with special shifts and task distribution. Concentrating care interventions with maximum exposure periods of four hours, facilitating breaks for basic needs and venting of emotions and overlapping shifts for one hour are encouraged. Covid-19 not only instilled fear but also disrupted the workload in the Critical Care Units. The majority of the participants as discussed in chapter 5 believed that they received minimum support and commitment from leaders within their organisation and strongly expressed the need for management commitment and accountability

as they put their own lives at risk during the pandemic. Many of the participants became emotional during the interviews as national nurses were not directly exposed to critically ill Covid-19 patients in the Critical Care Units and the foreign national nurses had to be exposed. This study shows the discomfort experienced by nurses during the response to this pandemic as a result of the imbalance between workload and human resources and the lack of communication with mid-level managers. As a result, nurses expressed a high degree of emotional exhaustion, with difficulty in expressing their emotions related to management accountability and commitment. The following recommendations on this subject as discussed below:

- There is a need to ensure a nurse-to-patient ratio that takes into consideration the complexity of caring for patients with Covid-19 in Critical Care Units, as well as the recognition of advanced nursing roles which imply taking on emerging clinical competencies.
- Measures such as condensing care interventions into maximum exposure periods of four hours, facilitating breaks for basic needs and venting emotions may contribute to improving the physical and emotional well-being of nurses.
- It is crucial to provide nurses with sufficient protective equipment, a minimum level of training and clinical practice guidelines with clear and precise instructions.
- Interventions aimed at providing psycho-emotional support to nurses should be maintained in the medium term.
- Communication between frontline nurses and mid-level care managers is key to ensuring efficient care management in times of crisis.

In approaching the health and well-being of staff, it is also important to pay attention to strengths and potential in human behaviour, rather than focusing solely on problems and weaknesses. Seek to promote positive work environments that encourage work engagement. Job characteristics associated with greater work engagement include those that create psychological growth by providing challenging, varied work and a supportive

management will impact positive work outcomes and healthy working environments. Organisational commitment, therefore can be considered as an emotional and psychological dependence on the organisation, where a person who is strongly committed and engages in it and enjoys job tasks in the organisation. Managerial commitment leads to loyalty to the organisation and greater knowledge of it and this keeps managers well engaged with their employees during such pandemics.

7.5.3 Recommendation 3: Training and education on Covid-19 or pandemics that impacts on psychosocial factors among Critical Care Nurses

During the initial wave of the pandemic, training programmes were quickly rolled out to fast-train healthcare workers, mostly based on existing curricula designed to educate general specialist knowledge, skills and attitudes regarding all sorts of diseases. But now, the world may see a second wave of infections, with new Covid-19 cases being reported by countries that have eased restrictions. Findings from the study showed the need for organisations to prepare training and education continuously to ensure healthcare capacity is established with adequate resources, facilities and workforce to minimise infection and mortality risks. This also presents an urgent call for educators to reflect on key lessons from the initial wave and identify training programmes that should have been implemented. This allows the development of a highly relevant training curriculum that is aligned to current needs in order to adequately prepare healthcare workers for the next wave.

Being provided a healthy and safe workplace throughout the pandemic and beyond is a human right. Maintaining open, safe and healthy workplaces is of vital importance to protecting livelihoods, well-being and public health. Critical public health measures can help protect workers, their clients, and the community at large. The aims of training and education are to guide nurses, managers and occupational health and safety professionals on how to protect themselves and their workplace during the Covid-19 pandemic. Ensure that the right systems,

frameworks and processes are in place for nurses' and midwives' learning, education and development throughout their careers. These must promote fair and equitable outcomes.

All healthcare facilities should establish or strengthen and implement IPC programmes and Occupational Health and Safety programmes to ensure health worker safety and prevent health worker infections while in the work environment. This course will highlight the epidemiology and risk factors associated with health worker infections with SARS-CoV-2, review measures that can be put in place to reduce risks, support identification of infection in health workers and review strategies for managing health workers to safely return to work post infection. Workplaces have played an important role in both the spread and mitigation of the Covid-19 pandemic throughout the world. The training and education should educate nurses on the virus itself and sstaying healthy and safe at work during the Covid-19 pandemic as illustrated below:

- A programme of continuous process improvements (using quality improvement approaches) especially through collective discussion in regular team meetings.
- Well-trained staff to lead in engaging communities, community representatives and patients in taking shared responsibility for their health and care services.
- Programs should be able to explain what SARS-CoV-2 is (the virus which causes Covid-19), how it is transmitted at work and which workers are most likely to be affected
- Apply infection prevention and control (IPC) principles at the workplace;
- Describe how to respond to an outbreak at the workplace;
- Explain how to manage the health and safety of yourself and your workers throughout periods of worksite closures and teleworking

- Describe the epidemiology and risk factors associated with health worker infections

- Describe screening and testing strategies to identify possible Covid-19 cases in health workers

- Describe the management of exposures and infection in health workers including a review of the exposure risk assessment

- Describe when it is safe for health workers to return to work post Covid-19 exposure or infection

Training and education of healthcare workers before and during an outbreak are crucial in order to ensure that all health workers have the knowledge and skills to treat infected patients, and to prevent and control the spread of infection to other patients or themselves. Pandemic outbreaks are rare events and this Covid-19 is unprecedented with a potential second wave of infections. This presents a unique window of opportunity to continue preparing and upskilling healthcare workers to manage the upcoming crisis. This discourse provides an overview of strategies for the prevention, surveillance and testing of Covid-19 in health workers including the management following exposure and eventual safe return to work of health workers who have had suspected or confirmed SARS-CoV-2 infections.

Needs assessment process should be a consensus document listing what healthcare workers should be taught in order to manage patients with Covid-19. Educators should use these needs analysis as a guide when deciding the content of their training programmes to integrate in a comprehensive curriculum, not only during this unprecedented Covid-19 crisis but also in preparation for future viral pandemic outbreaks. This program should be intended to guide workers and their representatives, business leaders, managers, as well as occupational health and safety professionals in protecting their workplace during the Covid-19 pandemic. The program should comprise of an introduction and learning modules narrated by experts in infection prevention control and occupational health and safety.

The overall objectives are to provide training not only on the clinical skills required to deal with Covid-19, but also on the potentially traumatic situations that staff might be exposed to including honest communication of the facts, developing skills to cope with these and awareness of potential mental health consequences. Evidence of the benefits of these interventions being delivered pre-trauma exposure appear promising, so are likely to be particularly important for new staff being mobilized to help with the response, such as final year medical students and student nurses, and those that are being redeployed from other locations or specialities.

7.5.4 Recommendation 4: Human resources/ staffing initiatives and retention strategy during Covid-19 pandemics

The Covid-19 pandemic has put the Saudi health and care workforce under unprecedented pressure. The workforce had been struggling to cope even before the pandemic took hold. Staff stress, absenteeism, turnover and intentions to quit had reached alarmingly high levels in 2019, with large numbers of nurses' vacancies across the health and care system., and then the Covid-19 pandemic struck. The Covid-19 pandemic has grandly shaken all organisations, creating a complex and challenging environment for managers and human resource management practitioners, who need to find ingenious solutions to ensure the continuity of their companies and to help their employees to cope with this extraordinary crisis. For Critical Care Nurses, the Covid-19 pandemic has exacerbated the issue of excessive demands on a workforce already at risk of stress and burnout. Added to this, the long-term effects of posttraumatic stress disorder are now a significant risk for those who have been on the front line during the pandemic. It also flagged the high rates of presenteeism, absence and attrition that existed within the nursing and midwifery professions.

This new report demonstrates not only that there is much to do if we are to bring about the cultural change needed to create a fully healthy and vibrant workforce, but also that achieving this change is no longer optional The impact of the pandemic on the nursing workforce has been unprecedented and will be felt for a

long time to come. The crisis has also laid bare and exacerbated longstanding problems faced by nurses especially in the Critical Care Units, including inequalities, inadequate working conditions and chronic excessive work pressures. The health and well-being of nurses are essential to the quality of care they can provide for people and communities, affecting their compassion, professionalism and effectiveness. Majority of the participants during the interviews expressed the need for more staffing and medical supplies and due to shortage they expressed feeling of not being safe within the Covid-19 Critical Care Unit. Some of the recommendations relating to the shortage human resources and retention strategies discussed below:

- During the Covid-19 crisis, many health and social care organisations need to increase support for their staff, not just by showing appreciation, but by ensuring that basic work conditions were improved. This has included access to food and water 24 hours a day, accommodation in or near the hospital/care home, free parking, and space for staff to take a break when they need it.

- There needs to be recognition that when you are exhausted or distressed at work, it is right that there is somewhere and someone you can go to and take some time to recover.

- Organisations need to create rest rooms where staff could go for rest and support when they were distressed. access to bathroom facilities and nutritious food and drink, including during night shifts

- Staff should be able to work more flexibly, and have made better use of e-rostering in the interests of staff rather than just efficiency and productivity

- Protection from violence, threats of violence, harassment, bullying and abuse – including through appropriately designed buildings and operational processes

- Support health workers who become infected and are isolating, including through communication, care and psychological support mechanisms, and compensated sick leave and insurance.

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- Plan workload to ensure appropriate working hours and enforced rest periods and breaks to prevent burnout and errors. Provide in-facility rest areas that are cleaned regularly, with space for physical distancing between staff

When staffs do not feel safe, their need for control is not being met. Asking staff to work with potential or confirmed cases of Covid-19 without adequate personal protective equipment (PPE), for example, puts their lives, the lives of their families, and the lives of their patients at risk. All these deficiencies in working conditions create persistent frustrations for hard-pressed nursing staff. Nursing is a demanding and stressful profession, so staff need working conditions that provide them with the right basic facilities to practise effectively and provide good-quality care to patients. It is important for employers to understand the unintended consequences of failing to provide basic facilities for staff to do their jobs. Concurrent with the findings in the study , the factors that influenced job satisfaction have also shown that improved staff relations and organisational structure, adequate staffing of healthcare personnel, a safe working environment, and appreciation by management are effective strategies for improving job satisfaction and retention of foreign national Critical Care Nurses.

7.5.5 Recommendation 5: Building sustainable team work and support structures during Pandemics

The quality of teamworking, and the culture, inclusiveness and supportiveness of teams, are central to nurses' and midwives' sense of belonging. We examine how positive teamworking can be nurtured and sustained, including through role clarity and stability, and how having a shared sense of purpose and shared objectives (one of which is team member well-being) is crucial. The team climate is characterised by positive emotions and a sense of psychological safety. Working in teams is vital for health and care quality but there is also good evidence that those working in supportive teams, with good team leadership, have significantly lower levels of stress than dysfunctional or pseudo teams in health and care. The more members of staff working in such teams in a health and care organisation,

the lower the levels of stress, errors, injuries, harassment, bullying and violence against staff, staff absenteeism and patient mortality; and the higher the levels of patient satisfaction. Majority of the participants expressed lack of team work during the Covid-19 pandemic due to high workloads and frustrations within the unit. The overall feelings from the interviews as discussed in chapter five was building team trust.

The more staff in hospitals who work in real teams, the better the mental health of staff, the higher their levels of engagement, patient satisfaction, care quality and safety, and the lower the levels of staff intention to quit their job. Effective teams have climates of psychological safety, shared team leadership, take time to review and improve, and work co-operatively across boundaries with other teams and departments. Psychological safety in a team refers to: everyone feeling included, cared for and valued; a strong sense of interpersonal trust and mutual respect; team members feeling comfortable being themselves; and team members not fearing they will be ridiculed, humiliated or judged by their colleagues. Some of the recommendations to build effective tam work during such pandemics as discussed below:

- Valuing all contributions regardless of profession or place in the status hierarchy
- Leadership moves between individuals (even though there may be a hierarchical leader) dependent on expertise in relation to tasks rather than hierarchical position
- Effective teamwork involves co-operating and supporting other teams to ensure effective delivery of high-quality and compassionate care overall, rather than just the team's own area of responsibility
- All teams should have an openly stated shared purpose and clear objectives, one of which is team member well-being. Team members should be clear about their roles and responsibilities. Quality improvement should be a core function of all teams.
- All health and care organisations should regularly review teamworking and ensure that all nursing and midwifery staff are working in inclusive, stable,

effectively functioning and, ideally, multidisciplinary teams freed from unnecessary hierarchical or inter-professional constraint

The importance of communication within teams cannot be understated. With new team members, changing roles, restructured teams and re-designed physical spaces, thinking about how teams communicate will be the most important element for leaders to consider. High performing teams have one thing in common as expressed in the findings by the participants. In chapter five namely, psychological safety, the belief that you can speak up or make mistakes without retribution. People become more creative, resilient and motivated when they feel safe. This can build over time if leaders work with their teams to encourage and develop this type of communication but needs to be nourished and respected as it can also be easily lost.

7.5.6 Recommendation 6: Future Research

Future studies should consider the possibility of expanding the current model by incorporating other latent variables that have been discussed within the study and in the literature review as being of relevance. These variables include skills and competence, shortage of staff, communication barriers, fear of death, engagement and workplace support during pandemics and diverse culture and its influence on foreign national Critical Care Nurses. The studies should also consider using larger sample sizes to ensure that the final sample size, after addressing the missing values problem. To add value to the study, the researcher should consider a comprehensive study of general nurses to ascertain the impact of psychosocial factors on mental health and well-being during pandemics in the general practice environment.

Multiple group analysis in structural equation modelling is instrumental because it allows one to compare multiple samples across the same measurement instruments or multiple population groups namely doctors versus nurses for any identified structural equation model. Future research should attempt to draw probability samples from other military hospitals in Saudi Arabia to increase the

demographic representativeness of the critical care population in healthcare, in Saudi Arabia. Future research should expand the theoretical model by incorporating other latent variables such as shortage of national and foreign national Critical Care Nurses, the demand and supply of national Critical Care Nurses and diversification in the critical care.

While organisational support and psychosocial factors during the Covid-19 exposure played a key role in the design of this study, future research should consider the relationship of this important factor to outcome variables with more detail. Future studies should examine the relationship between perceived organisational support and other outcomes, like improved organisational commitment from individuals who value health and well-being during crisis or pandemics situations. Additionally, while the ERG model by Alderfer can be used as a strong model for future research, the lack of any clear multidimensionality of the scale could be a weakness. Therefore, future research should consider adding additional items to the model in partnership with Maslow's hierarchy of needs to create a multidimensional assessment of perceived psychosocial factors and the organisational support which can include peers, supervisor, manager, and organisation level items.

Each of three concrete dimensions of time, energy, and resources could benefit from more in-depth study of their unique impact on psychosocial factors on foreign national Critical Care Nurses. Future studies can also examine the role that motivation and interest play in the effectiveness and health-related outcomes of wellness programmes and emotional support during global pandemics . In this study, motivation and support to use health and wellness programmes and interest in specific programmes were strongly related, but this finding could have been a result of how the survey was designed. Additional research focus areas should consider dimensions of psychosocial perceptions and employee engagement with behavioural and emotional health and well-being during pandemic situations to ascertain if these two are strongly related, with more

detailed measures of psychosocial factors influencing work motivation and emotional fatigue during Covid-19 or any global pandemics.

7.6   CHAPTER SUMMARY

The study findings revealed a considerate proportion of anxiety, depression and insomnia symptoms among foreign national Critical Care Nurses during the early phase of the pandemic in the critical care Covid-19 unit. Foreign national nurses facing stigma, those directly exposed to Covid-19 and those reporting inadequate precautionary measures in their workplace were more at risk of developing mental health fatigue and adverse behavioural outcomes. A focus on improving the behavioural and the mental well-being of Critical Care Nurses should be immediately initiated with attention to reduction of stigma, ensuring an adequate support system such as personal protective equipment , and family support for those foreign national nurses directly exposed to Covid-19 patients or any pandemic that could impact on psychosocial factors. In summary, planning and developing strategies for handling the Covid-9 pandemic, management and communication between stakeholders, organisational and workforce planning, skills and knowledge management, and evaluation were the main components of the general qualitative framework proposed in this study for managing the Covid-19 outbreak in Saudi Arabia. The propositions presented in this study can help the Saudi Arabian government and other health care facilities to implement an effective plan to control the spread of the Covid-19 pandemic in this country. However, it is critical that organisations also tackle the underlying causes of stress, ill health and poor well-being such as chronic excessive workload, bullying, inadequate supervision, discrimination and poor teamworking rather than focusing solely on their consequences.

7.7   CONCLUDING REMARKS

The nurses caring for Covid-19 patients felt extreme physical fatigue and discomfort caused by the outbreak, intense work, large number of patients, and lack of protective materials, The physical exhaustion, psychological helplessness,

health threat, lack of knowledge, and interpersonal unfamiliarity under the threat of epidemic disease led to a large number of negative emotions such as fear, anxiety, and helplessness Therefore, early psychological intervention is particularly important to nurses in pandemic situations. At the same time, it is important to establish early support systems, such as adequate supplies of protective materials, reasonable allocation of human resources, elderly and infant care services for nurses' families, pre-job training, and interpersonal interaction among nurses to facilitate nurses' adaptation to the pandemic tasks. It is known that coping style, cognitive evaluation, and social support are all mediators of stress. Foreign national nurses adopted avoidance, isolation, speculation, humour, self-consciousness, and other psychological defenses to psychologically adjust to the situation. This study provided a comprehensive and in-depth understanding of the psychosocial factors experienced by Critical Care Nurses during the care of patients with Covid-19 through a phenomenological approach. We found that during the pandemic positive and negative emotions of frontline Critical Care Nurses against the Covid-19 pandemic interweave and coexist. In the early days of the Covid-19 surge, the negative emotions were dominant and positive emotions appeared simultaneously or gradually. Self-coping style and psychological growth are important for foreign national Critical Care Nurses to maintain a healthy emotional and psychological mental health and well-being during such pandemics. This study provided fundamental data for further psychological and psychosocial interventions for global pandemics, not only Covid-19,but any such pandemics that may impact on foreign national Critical Care Nurses

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APPENDICES

Appendix 1: University Ethics Clearance

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

15 September 2021

Dr K Chetty
6 Begonia Road
Cleland
Pietermaritzburg
3201

Dear Dr Chetty

Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia.
Ethical Clearance number IREC 173/21

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letters.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely

Professor J K Adam
Chairperson: IREC

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fairness · professionalism · commitment · compassion · excellence

Appendix: 2a: Permission letter to the Hospital Director Armed forces Hospital Southern Region

ARMED FORCES HOSPITAL SOUTHERN REGION
P.O. BOX 101 KHAMIS MUSHAYT KINGDOM OF SAUDI ARABIA

Nursing Administration

Appendix: 1a: Letter for Gatekeeper permission

6 Begonia Road
Cleland
Pietermaritzburg
3201
12 September 2021

Major General Dr. Abdullah Bin Saleh Al Otiebi
Hospital Director Armed Forces Hospital Southern Region
Armed Forces Hospital Southern Region
P.O. Box 101
Khamis Mushayt
61961

Dear Major General Dr.

Request for permission to conduct research

My name is Krishnavellie Chetty, Director of Nursing Armed Forces Hospital Southern Region, and a Masters Health Sciences nursing student at the Durban University of Technology in South Africa. The research I wish to conduct for my master's thesis and the title is: *Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia.*

I am hereby seeking your consent to conduct the study within the organisation and this Qualitative method study will involve the COVID-19 critical care unit nurses only that are full time employed by Armed Forces Hospital Southern Region. The data collection in the qualitative phase will be a structured interview of the study. The study poses no risks of any kind to the participants and the organization. I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me or my supervisors Dr. V. Naidoo or Dr N Naranjee on +27 31-373 2606 Email vasanthrien@dut.ac.za Nellie1@dut.ac.za

Thank you for your time and consideration in this matter.

Yours sincerely.

Dr. K Chetty (Masters Health Sciences Nursing Candidate)
Durban University of Technology
+966531837821
jessiechetty4@gmail.com

Appendix 2b: Approval letter from the Hospital Director Armed Forces Hospital Southern Region

ARMED FORCES HOSPITAL SOUTHERN REGION
P.O. BOX 101 KHAMIS MUSHAYT KINGDOM OF SAUDI ARABIA

TO : Dr. Krishnampilla Chetty
Director of Nursing Administration

FROM : Maj. Gen. Dr. Abdullah Bin Saleh Al Otiebi
Director of Armed Forces Hospital Southern Region

DATE : 16 September 2021

SUBJECT : Approval to conduct a Master's thesis
Master in Nursing Sciences at AFHSR

Reference to the approval of H.E. Hospital Director, AFHSR on your memo dated 12th September 2021 requesting permission to do your research on "Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia."

Therefore, I would like to inform you that the Administration of AFHSR has no objection with your request. However, you are hereby requested to discuss the results with the Administration prior to publication.

Maj. Gen. Dr. Abdullah Bin Saleh Al Otiebi
Director of Armed Forces Hospital Southern Region

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Appendix 3A: Letter of information for the interview participants

Thank you for agreeing to participate in this study. Your input is highly appreciated.

Title of the Research Study*: Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia.*

Principal Investigator/s/researcher: Dr. Krishnavellie Chetty (Masters of Nursing Science Candidate)

Co-Investigator/s/supervisor/s: (Supervisor) Doctorate Nursing (Co-supervisor)

Brief Introduction and Purpose of the Study: The COVID-19 pandemic, however, confronted critical care nurses with an even greater, unprecedented, challenge and exposed them to many risk factors to great extent, most likely having profound psychosocial and psychological effects on their mental health. The aim of the study will be to explore the psychosocial effects of COVID-19 pandemic on foreign national Critical Care Nurses using a Phenomenological exploration approach.

Greeting: Good day. Warm greetings to you.

Introduce yourself to the participant My name is Krishnavellie Chetty, I am a 1st year student at DUT doing research for my Master's degree in Health Sciences

Invitation to the potential participant I would like to invite you to participate in the research

What is Research: Research is a systematic search or enquiry for generalized new knowledge. Research entails collecting of data; documenting, analysis and interpretation of the data collected. There are different methods of data collection. The study of note is an interview.

The interview will be conducted in English. You may ask as many questions as required so that you are comfortable and have an understanding of the study. You are entitled to discuss the study with your family hence you are not obligated to commit at this stage. Therefore, a copy of this Letter of Information document will be given to you to take home.

Outline of the Procedures: Permission from the Durban University of Technology will be obtained by the researcher to recruit you as a participant. Furthermore, permission will be obtained from your head of Department to recruit you as a participant. You are required to complete the consent form attached to this document to consent to partaking in this study. This research population includes foreign national critical care nurses working in designated Covid-19 unit and excludes any other group of healthcare workers. The data collection tool is an interview including collection of demographic data within duration of 20-30 minutes which will be done during your working shift in the nursing administration board room. Your responses will be documented and recorded by the interviewer. All information given will be confidential. You may withdraw from the interview at any time.

Risks or Discomforts to the Participant: There are no risks to you.

Explain to the participant the reasons he/she may be withdraw from the Study:

Participation is voluntary. You may decide to withdraw from this study at any time by advising the researcher. There will be no consequences to you should you wish to withdraw. The researcher may withdraw you from the study due to non-compliance, an adverse event or in the event of you being ill and cannot complete the interview.

Benefits: Psychosocial factors are understood to be the interaction between work, workers, the environment, satisfaction with the work performed and organizational conditions. In addition, these factors may also involve the capacity of the worker, his/her needs, culture and personal situations. These factors can positively and negatively influence the health, welfare and performance of the worker. Psychological and psychosocial health problems are currently occurring among nurses who come into direct contact with patients with confirmed or suspected Covid-19. However in Saudi Arabia there has to date been no studies to assess the psychosocial effects associated with the

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spread of Covid-19 experienced by foreign national critical care nurses. This study will provide significant evidence to promote the psychosocial effects of foreign national critical care nurses caring for Covid-19 patients during this global pandemic. The objective of this study will fundamentally involve the analysis of psychosocial factors that affect foreign national critical care nurses, their tasks and the organization. In the area of the study this will also provide evidence based study for governments, policy makers and nurse leaders about the current situation and detail any potential enhancements and make recommendations and suggested strategies to improve psychosocial health and well-being of foreign national critical care nurses.

Remuneration: There will be no remuneration to you for partaking in the study

Costs of the Study: There are no costs to you partaking in this study

Confidentiality: Your participation in this study is voluntary. It will involve an interview of approximately 20 – 30 minutes in length to take place in the hospital during work hours by a specified time agreed by both parties. You may decline to answer any of the interview questions if you so wish. The researcher will be writing and recording the responses of the interview on a guide solely as a form of record keeping and referral for the study. At the end of the interview the researcher will give you an opportunity to confirm the accuracy of the conversation and to add or clarify any points that you wish. All information you provide is considered completely confidential. You can be assured that your name will not appear on the interview guide, you will be allocated a number in a code form. Neither will your details be in any report that will result from this study, however, with your permission anonymous quotations may be used. Data collected during this study will be retained for a period of five years in a locked cupboard. Only researchers associated with this project will have access.

Results: The researcher plans to disseminate the results of the research according to DUT standards. If any significant new findings developed during the course of the research you will be contacted via your head of department.

Research-related Injury: There are nil anticipated.

Storage of all electronic and hard copies including tape recordings: Hard copies of the interview guide and demographic data will be stored in a locked cupboard in the nursing administration office for a period of 5 years. Only the researcher and supervisor will have access to the data. The data will be securely shredded after 5 years. Electronic data will be password protected and stored on a secure laptop. Only the researcher and supervisor will have access to the data. Data will be securely deleted after 5 years.

Persons to contact in the Event of Any Problems or Queries:

Please contact the researcher, Dr Krishnavellie Chetty (966531837821), my supervisor Dr V. Naidoo or the Institutional Research Ethics Administrator on¯031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.

General:

A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population e.g., English

Appendix 4: Letter of Consent

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Dr. Krishnavellie Chetty about the nature, conduct, benefits and risks of this study - ***Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia*** Number: **173/21**
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____   _____   _____ _____

Full Name of Participant   **Date**   **Time**   **Signature / Right Thumbprint**

I, Krishnavellie Chetty herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Krishnavellie Chetty   August 2021   _____
Full Name of Researcher   **Date**   **Signature**

_____   _____   _____

Full Name of Witness (If applicable)   **Date**   **Signature**

_____   _____   _____

Full Name of Legal Guardian (If applicable) Date   **Signature**

Appendix 5a: Demographic data

Title: *Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia.*

Appendix 3a: Demographic data: Interview participants

Participant Number:

Date of interview: ………………………..

SECTION A: DEMOGRAPHIC DATA

Please answer the following questions about yourself. This data is needed to help us to build a picture of the overall staff mix and characteristics. Please tick in the appropriate box. Note that for some questions it may be necessary to write the information required in the appropriate box or space provided.

Q1. **What is your gender?**

Male	
Female	

Q2. **What is your age?**

Below 21	
21-30	
31-40	
41-50	
Above 50	

Q3. **What is your highest level of education?**

Some secondary school	
Standard 10 or equivalent	
Post school certificate	
Diploma	
Degree/ Masters/ PhD	
Other *(Specify)*_____	

Q4. **How long (**e.g. 3 years 2 months**) have you been employed in this hospital?**

_____years _____ months

Q5. **What is your employment status?**

Full-time: MSD	
Contract: Program	
Other *(please specify)* _____	

Q6. **What are your nursing qualifications? (Tick all that apply to you)**

Registered Nurse: Bachelors	
Licensed Practitioner Nurse: Diploma	
Masters Nursing Science	
Doctorate in Nursing	
Post Basic: ICU	
Other *(please specify)*_____	

Q7. **Unit where you are allocated (Tick ONE option only)**

Adult General ICU	
Paediatric ICU	
NICU	
High Dependency Unit	

Cardiac ICU	
Obstetrics ICU	
Coronary Cardiac Unit	

Q8. **What is your country of origin?**

Saudi Arabia	
South Africa	
Malaysia	
Philippines	
India	
Other *(please specify)*_____	

Appendix 5b: Interview guide that will assist in facilitating discussion with critical care nurses

Title of Study: *Exploring the psychosocial effects of Covid-19 on foreign national critical care nurses employed in Saudi Arabia.*

> <u>**SECTION B:**</u>*The following questions are aligned with the theoretical framework that will guide the study will be used by the researcher to guide the interview process.*

Probing questions

- Can you describe your feelings and experiences about working in the critical care unit during the pandemic caused by Covid-19.
- Can you briefly highlight   any basic need satisfaction that you consider of importance, and fulfilment, as a critical care nurse whilst performing your work related tasks during the Covid- 19 pandemic.
- How do you as foreign national critical care nurse perceive motivational factors and its influence on your performance whilst caring for Covid -19 patients?
- Describe any work related psychosocial factors that contributed to your individual human behaviour whilst caring for Covid- 19 patients in the critical care unit
- Existence needs include various forms of safety, physiological and psychosocial needs. Safety needs mainly refer to the prevention from fear, anxiety, threat, danger, tension. Please elaborate on any of these factors and its effect on your well-being whilst caring for Covid -19 patients in the critical care unit
- Physiological needs refer to an individual's pursuit of satisfaction, such as leisure, exercise, sleep. Can you identify and discuss any of these factors that has been influenced negatively during the Covid- 19 pandemic.

- In your opinion how do you feel the material and human resources have been managed during the Covid-19 pandemic?

- Relatedness needs include senses of security, belonging, and respect. Sense of security involves the mutual trust of humanity. Can you identify any of these needs that contributed to your work performance whilst caring for Covid- 19 patients in the critical care unit during the pandemic

- How has the pandemic quarantine and social distancing influenced your sense of belonging from all forms of suffering, such as isolation, loneliness and distance.

- Growth needs involve needs for self-esteem and self-actualization. Has there been any effects such as the ability to pursue, to achieve, to control, to build confidence and to be independent whilst being exposed to COVID- 19 patients in the critical care units.

- What kind of challenges have you faced during the pandemic? and How did it make you feel?

Appendix 6: A Sample of an interview transcript

PARTICPANT No.6:

RESEARCHER: Thank you for participating in the research study related to psychosocial effects of Covid-19 . Did you sign the consent? I hope you fully understand the informed consent.

PARTICPANT: Yes Very clear

RESEARCHER: You can be reassured that the information during this interview session will be kept confidential.

PARTICPANT: Yes. Thank you

RESEARCHER: The purpose of this research is to explore what are your experiences as a foreign national critical care nurse related to the psychosocial effects of Covid-19 whilst caring for patients in the critical care unit.

PARTICIPANT: I understand thank you.

RESEARCHER: Can you describe your feelings and experiences about working in the critical care unit during the pandemic caused by Covid-19.

PARTICIPANT: During the first wave it was very scary and we knew nothing about the virus so this made us feel more fearful to get infected. Fear was our biggest issue due to lack of knowledge and we had to care for these patients who was critically ill. Also we experienced shortage of staff and shortage of supplies especially PPE.

RESEARCHER: Can you briefly highlight   any basic need satisfaction that you consider of importance, and fulfilment, as a critical care nurse whilst performing your work related tasks during the Covid- 19 pandemic.

PARTICIPANT: Yes our basic need to sleep and eat was not met because we worked long hours and had no time to take any rest and to cook food for us. This created our bodies not to be well-nourished and we sometimes stayed in the hospital due to the

increase in Covid-19 patients. We so busy and shortage of staff no breaks and no rest time. Mentally and physically exhausted.

RESEARCHER: How do you as foreign national critical care nurse perceive motivational factors and its influence on your performance whilst caring for Covid -19 patients?

PARTICIPANT: It is very important for us to be strong and focused and motivated. It ivory important because then we can work as a team. At times we felt appreciated by the management but our team leaders and our doctors very rude to us and never checking on us and they scared to come into the unit and talk to us from the entrance. All we feel during this time a simple thank you and of course we should get some renumeration for our exposure and risk we taking.

RESEARCHER: Describe any work related psychosocial factors that contributed to your individual human behaviour whilst caring for Covid- 19 patients in the critical care unit.

PARTICIPANT: Yes mental fatigue caused me to become aggressive at times and there was no team work and we started to argue with each other. This caused more frustration because we lost trust within the team. Both the nurse and doctors we started to disagree and the environment was not good. But as we got more familiar with the virus we more settled.

RESEARCHER: Existence needs include various forms of safety, physiological and psychosocial needs. Safety needs mainly refer to the prevention from fear, anxiety, threat, danger, tension. Please elaborate on any of these factors and its effect on your well-being whilst caring for Covid -19 patients in the critical care unit.

PARTICIPANT: Fear and anxiety was always there from the start of the Covid-19 because of the lack of knowledge for the virus. It came so quick that we had no time to plan. Yes safety was an issue especially the shortage of staff which could cause medico legal errors and safety related to shortage of supplies. But by the 2nd wave we more familiar and more supplies arrived.

RESEARCHER: Physiological needs refer to an individual's pursuit of satisfaction, such as leisure, exercise, sleep. Can you identify and discuss any of these factors that has been influenced negatively during the Covid- 19 pandemic.

PARTICIPANT: The covid-19 surge created sleepless nights. Was so exhausted to care for ourselves. Patients were being admitted ventilated and dying and this was sad. Had no time to eat properly or even exercise. These factors influenced me negatively and I also became infected and needed to be isolated and my fear of dying was so strong and I became depressed because far from my family

RESEARCHER: In your opinion how do you feel the material and human resources have been managed during the Covid-19 pandemic?

PARTICIPANT: During the first wave o the virus we has shortages of staff and supplies. We made our own suits with the trash bags and plastics. But by the second wave the hospital provided for us. Shortage of critical care nurses is a global problem but we had nurses cross trained to help us with non-ventilated patients. But they were very scared and some critical care nurses gave them hard time.

RESEARCHER: Relatedness needs include senses of security, belonging, and respect. Sense of security involves the mutual trust of humanity. Can you identify any of these needs that contributed to your work performance whilst caring for Covid- 19 patients in the critical care unit during the pandemic

PARTICIPANT: Yes at times I felt no one cares and people treated me badly especially my colleagues in the villa. Because I was working in the Covid unit they distanced themselves from me and refuse to talk to me. Felt at times as outcast and no sense of belonging. From work I used to go to my accommodation and sit there. People lost respect for each other and treated us very bad and discriminated against us working with covid-19 patients.

RESEARCHER: How has the pandemic quarantine and social distancing influenced your sense of belonging from all forms of suffering, such as isolation, loneliness and distance.

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PARTICIPANT: As I said I felt very lonely and my friends refuse to speak to me. The social distancing also created no human contact and my family staying with me I could not hug my kids and this created such emotional pain during the pandemic.

RESEARCHER: Growth needs involve needs for self-esteem and self-actualization. Has there been any effects such as the ability to pursue, to achieve, to control, to build confidence and to be independent whilst being exposed to Covid- 19 patients in the critical care units.

PARTICIPANT: For my growth I felt stunted. Is started my studies for masters and could not go home for exams because of lockdown so I feel a wasted year and paid for nothing. No classroom activities due to infection control protocols. So this year I feel I learnt nothing. For myself my self esteem was low because I lost many friends and also could not reach my goals in life. Need to pick up the rest of the year and take control of my goals for me and my family and to build me self-confidence.

RESEARCHER: What kind of challenges have you faced during the pandemic? and How did it make you feel?

PARTICIPANT: I faced many challenge's but mostly the shortage of staff and the supplies. Also the stigma associated with the Covid -19.Other challenges include the lockdown not being able to fly home to see my family and also the death of my mum and dad during the covid and nothing I could do from here.

Appendix 7:Letter from the Professional Editor

YN

Krishnavellie Chetty

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Dr Anita Hiralaal

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MASTER'S NURSING THESIS

EXPLORING THE PSYCHOSOCIAL EFFECTS OF THE CORONAVIRUS 2019 (Covid-19) PANDEMIC ON FOREIGN NATIONAL CRITICAL CARE NURSES EMPLOYED IN SAUDI ARABIA

has been edited to ensure technically accurate and contextually appropriate use of language, grammar, logical coherency and presentation.

Dr Anita Hiralaal

Appendix 8:Turnitin Report