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Department of Business Administration

LEVEL OF BURNOUT IN STAFF, SUSTAINABLE QUALITY SERVICE AND PATIENT SATISFACTION IN HEALTCARE INSTITUTIONS DURING HEALTHCARE CRISIS

Master Thesis

Mohammad Khalid RAMZ

Supervisor

Asst. Prof. Dr. Çağla TUĞBERK ARIKER

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Mohammad Khalid RAMZ

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the words of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

Mohammad Khalid RAMZ

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Director *Signature*
Prof. Dr. Evren AYRANCI

Member *Signature*
Asst. Prof. Dr. Çağla TUĞBERK ARIKER
(Supervisor)

Member *Signature*
Asst. Prof. Dr. Aslı DİYADİN LENGER

I approve that signature belong to the aforementioned faculty members.
…/…/2022
Signature
Prof. Dr. İzzet GÜMÜŞ
Director of the Institute

SUMMARY

Since the serious global infectious disease COVID-19 pandemic started, hospitals received a surge of patience in an unprecedented way that affected both the quality of health care services and customers' satisfaction. Meanwhile, COVID-19 pandemic has been changing the levels of burnout in staff (Doctors, Nurses and supportive personnel).

According to Tabash et al., good service has a beneficial impact on customer satisfaction (2019). Service quality is described by Parasuraman et al as offering great service and exceeding client expectations (1985). Satisfaction according to Laferty is the process of customer comments and evaluation about a product or service that this product or service meets their needs and expectations or not (2001).

Burnout is a work-related stress syndrome resulting from chronic exposure to job stress; the term was introduced in early 1970s by psychologist Freudenberger and has subsequently been defined by Maslach et al. as consisting of three qualitative dimensions which are emotional exhaustion, depersonalization and reduced personal accomplishment (1981). Burnout can occur in any kind of profession (Leiter, 1996).

The goal of this research is to investigate the level of burnout in staff, perceived service quality of patients, and patient satisfaction in healthcare institutions during crisis such as COVID-19 pandemic. The purpose is to highlight the link between the level of burnout in staff and patients' perceived service quality. The findings are expected to help in developing suggestions about how to have sustainable quality service and customer satisfaction at hospitals by decreasing the level of burnout in staff.

In this study the author used Maslach Burnout Inventory Human Service Survey for Medical Personne which is developed by BojanaMatejic (2015) to investigate level of burnout in doctors, nurses and supportive staff also used SERVQUAL scale adapted by Arasli (2008) to investigate perceived service quality and patient satisfaction at three Public and three Private hospitals in Kabul, Afghanistan.

The findings showed that the mean value of personal accomplishment was very high and the health personnel do not feel energetic, relaxed, calm and effective during

COVID-19 pandemic. Similarly, they are experiencing emotional exhaustion but depersonalization mean values are not very high. The results of analysis showed that the health personnel working in public and private hospitals are significantly different in terms of personal accomplishment dimensions but, no difference was observed for emotional exhaustion and depersonalization. The burnout levels of doctors and nurses working at private and public hospitals are not different, but both groups suffer from high levels of burnout. The one way ANOVA result showed that the mean values for emotional exhaustion, personal accomplishment and depersonalization of doctors, nurses and supportive staff are significantly different. Post-hoc comparisons showed that doctors are in worse than both nurses and supportive staff in terms of emotional exhaustion and personal accomplishment but, in terms of Depersonalization they are better than nurses and supportive staff.

For perceived service quality and patient satisfaction, after explanatory factor analysis a two factor structure is obtained which are human related and environmental related factors. It seems that Afghan patients evaluated the service quality in two mentioned dimensions. Patients do not blame health personnel who are working under high pressure during COVID-19 pandemic. They understand them. They rather take physical environment factor into consideration when they evaluate their satisfaction from the hospitals. The results of the analysis showed that the perceptions of patients in public and private hospitals are significantly different in terms of human relation and physical environment dimensions. The service quality in private hospital is better than public and patients are more satisfied with the services of private hospitals.

Key Words: Burnout, Patient's perceived service quality, Patient satisfaction.

ÖZET

COVID-19 pandemisi başladığından beri, hastanelerde hem sağlık hizmetlerinin kalitesini hem de müşteri memnuniyetini etkileyen eşi görülmemiş bir yoğunluk yaşanmaktadır. Aynı zamanda, COVID-19 pandemisi sağlık personelinin (doktorlar, hemşireler ve yardımcı personel) tükenmişlik düzeylerini de etkilemektedir.

İyi hizmetin müşteri memnuniyeti üzerinde olumlu bir etkisi vardır (Tabash et al., 2019). Parasuraman et al.'a göre, hizmet kalitesi mükemmel hizmet sunmak ve müşteri beklentilerini aşmak, anlamına gelmektedir (1985). Laferty'ye göre memnuniyet, müşterilerin bir ürün veya hizmet hakkında, bu ürün veya hizmetin ihtiyaç ve beklentilerini karşılayıp karşılamadığına yönelik yorum ve değerlendirme yapma sürecidir (2001).

Tükenmişlik, iş stresine kronik olarak maruz kalmaktan kaynaklanan işle ilgili bir stres sendromu olup 1970'lerin başında psikolog Freudenberger tarafından ortaya atılmış ve daha sonra Maslach vd. tarafından duygusal yorgunluk, duyarsızlaşma ve kişisel başarıda azalma adlı üç nitel boyuttan oluşan bir kavram olarak tanımlanmıştır (1981). Tükenmişlik her türlü meslekte ortaya çıkabilir (Leiter, 1996).

Bu araştırmanın amacı, COVID-19 pandemisi gibi bir kriz döneminde sağlık kurumları personelinin tükenmişlik düzeyini, hastaların algılanan hizmet kalitesini ve hasta memnuniyetini incelemektir. Amaç, personeldeki tükenmişlik düzeyi ile hastaların algılanan hizmet kalitesi arasındaki bağlantıyı ortaya koymaktır. Elde edilen bulguların, personeldeki tükenmişlik düzeyini azaltarak hastanelerde sürdürülebilir kaliteli hizmetin ve müşteri memnuniyetinin nasıl sağlanabileceği konusunda öneriler geliştirmeye yardımcı olması beklenmektedir.

Bu çalışmada yazar, doktorlar, hemşireler ve yardımcı personeldeki tükenmişlik düzeyini ölçmek amacıyla BojanaMatejic (2015) tarafından geliştirilen Tıbbi Personele Yönelik Maslach Tükenmişlik Envanteri İnsani Hizmet ölçeğini; algılanan hizmet kalitesini ölçmek için ise Araslı (2008) tarafından uyarlanan SERVQUAL ölçeğini kullanmıştır. Veriler Afganistan, Kabil'deki üç devlet hastanesi ve üç özel hastanede toplanmıştır.

Araştırma sonuçları, kişisel başarıda azalma boyutunun ortalama değerinin çok yüksek olduğunu ve sağlık personelinin COVID-19 salgını sırasında kendilerini enerjik, rahat, sakin ve etkili hissetmediklerini göstermiştir. Ayrıca sağlık personeli duygusal yorgunluk yaşamakta ancak duyarsızlaşma değerleri çok yüksek görünmemektedir. Analiz sonuçları, kamu ve özel hastanelerde çalışan sağlık personelinin kişisel başarıda azalma boyutu açısından anlamlı düzeyde farklı olduğunu, duygusal tükenme ve duyarsızlaşma açısından ise farklılık olmadığını göstermiştir. Özel ve kamu hastanelerinde çalışan doktor ve hemşirelerin tükenmişlik düzeyleri farklı olmamakla birlikte her iki grup da yüksek düzeyde tükenmişlik yaşamaktadır. Araştırma sonuçları, doktorların, hemşirelerin ve destekleyici personelin duygusal yorgunluk, kişisel başarıda azalma ve duyarsızlaşma ortalama değerlerinin önemli ölçüde farklı olduğunu göstermektedir. İkili karşılaştırmalar, doktorların duygusal yorgunluk ve kişisel başarıda azalma açısından hem hemşirelerden hem de destekleyici personelden daha kötü durumda olduğunu, ancak duyarsızlaşma açısından hemşirelerden ve destekleyici personelden daha iyi durumda olduklarını göstermiştir.

Algılanan hizmet kalitesi ve hasta memnuniyeti için uygulanan açıklayıcı faktör analizinden sonra insan kaynaklı ve çevresel faktörler olmak üzere iki faktörlü bir yapı elde edilmiştir. Afgan hastaların hizmet kalitesini bahsi geçen iki boyutta değerlendirdiği görülmektedir. Elde edilen sonuçlara göre, hastalar COVID-19 salgını sırasında yüksek baskı altında çalışan sağlık personelini suçlamamakta ve onları anlamaktadırlar. Hastanelerden memnuniyetlerini değerlendirirken daha çok fiziksel çevre faktörünü dikkate aldıkları görülmüştür. Analiz sonuçları, kamu ve özel hastanelerdeki hastaların algılarının insan ilişkileri ve fiziksel çevre boyutları açısından önemli ölçüde farklı olduğunu göstermiştir. Buna göre, özel hastanelerde hizmet kalitesi kamuya göre daha iyidir ve hastalar özel hastanelerin hizmetlerinden daha memnundur.

Anahtar Kelimeler: Tükenmişlik, Hastanın algıladığı hizmet kalitesi, Hasta memnuniyeti.

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ABBREVIATIONS

COVID-19	:	Coronavirus Disease 2019
MBI-HSS MP	:	Maslach Burnout Inventory – Human Service Survey for Medical Personnel
SERVQUAL Scale	:	Service Quality Scale
WHO	:	World Health Organization
SARS-CoV-2	:	Severe Acute Respiratory Syndrome Coronavirus 2
EE	:	Emotional Exhaustion
DP	:	Depersonalization
PA	:	Personal Accomplishment
MBI – HSS	:	Maslach Burnout Inventory-Human Service Survey
BOS	:	Burn-Out Syndrome
ICD-11	:	International Classification of Disease Of the 11th Revision
HR	:	Human Resource
MDs	:	Medical Doctors
ISO	:	International Standardization Organization
EDs	:	Emergency Departments
EMs	:	Emergency Medical Services
USA	:	United State of America
ANOVA	:	Analysis of Variance

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PREFACE

However I am a medical doctor but preferred to study MBA because, having knowledge in business administration is very important for every field including medicine.

Conducting surveys at the hospitals, contacting healthcare personnel and patients during COVID-19 pandemic was a big challenge and dangerous for me. Unfamiliarity with filling the Google form, named opening the links unsecure, not showing interest to answer the online questionnaire from participants were other problems that I faced during the surveys. Getting permission from the head of the hospitals for surveys especially at Public hospitals and female hospitals was another challenge and time consuming.

Due to some sociocultural restrictions the percentages of female participants were very less than expected number which is disappointing me. However I faced with many challenges during the study, I could do my best to do this research successfully.

I extend my greatest acknowledgment and thanks from the bottom of my heart to my thesis supervisor Ass. Prof. Dr. Çağla TUĞBERK ARIKER for her helpful guidance, hardworking, efforts and feedback during the entire period of this research

I offer my sincere thanks to Istanbul Gelişim University all Professors for their continuous support, authorities for their excellent management and the entire team who helped me to complete my master program.

I would like to thank the head of public and private hospitals in Kabul, Afghanistan who assisted me to do the surveys in their sectors to complete my research. I am very thankful from each of doctors, nurses, supportive staff and patients of mentioned hospitals who participated in the surveys for this study.

I am grateful from each members of my family for their encouragement, love and support and especial thank to my mom and sisters who have motivated me to pursue my graduate degree.

INTRODUCTION

Since the serious global infectious disease COVID-19 pandemic started, hospitals received a surge of patience in an unprecedented way that affected both the quality of health care services and customers' satisfaction. Some healthcare services have been compromised to meet the demands of caring for COVID-19 patients, and many people fear accessing healthcare facilities due to poor quality of services and other customers' worse experiences being treated in the health institutions. Overall, it affected healthcare effectiveness of customers' care due to lack of proper facilities and medical equipment, poor interactions between the customers and health institutions, understanding the patients, caregivers, and families from their perspective is an opportunity to reflect provider behavior as being politeness and respectful, other healthcare services. Thus, this situation caused very undesirable outcomes to the health institutions. It damaged their reputation and quality services which in turned affected their customer satisfaction negatively.

Meanwhile, COVID-19 has been changing the levels of burnout in staff (Doctors, Nurses and supportive personnel) at healthcare institutions.

Burnout is a work-related stress syndrome caused by long-term exposure to job stress. The term was coined by psychologist Freudenberger in the early 1970s, and Maslach et al. (1981) defined it as having three qualitative dimensions: emotional exhaustion, cynicism, and depersonalization, as well as reduced professional efficacy and personal accomplishment (Freudenberger, 1975; Maslach 1981, 2001). In any career, burnout can occur (Leiter, 1996).

Burnout is one of the remarkable bases that have impact on today's working life negatively. Starting as a response to the stresses caused by the job, it is a process that negatively impacts the habit and behaviors of staff working in a sector Gandi et al, (2011). Emotional exhaustion is one of the most important determinative subscales of burnout and shows how employees feel suppress and exhausted emotionally. People, who are emotionally exhausted, keep themselves psychologically in the next phase by limiting their relationship with other people around them. The depersonalization subscale is the display of emotionally deprived attitudes and

behaviors by individuals in front of the people they serve. People are seen as an object rather than a human being. In the personal accomplishment subscale, people are feeling inefficient at work and human relations and start to remark themselves as deficient for doing their work (Rushton, 2015; Sou, 2015). Another noteworthy point about the concept of burnout is that it is more common among jobs that require face-to-face communications with others (Helvaci, 2013).

Healthcare personnel are at risk of burnout due to nature of their professions. There are many factors causing burnout among healthcare personnel such as unclear job description among some professions; lack of organizational support; doing the same job by people with education at different levels; working shifts ; working with low wages; excessive weekly working duration and a large number of patients (Tunc, 2008; Kacmaz, 2005).

In this study, the level of burnout in staff at healthcare institutions during COVID-19 in Kabul, Afghanistan is being investigated. To measure the level of burnout, the author will be using Maslach Burnout Inventory-Human Service Survey for medical personnel (MBI-HSS MP) scale.

As burnout can occur in every occupation or any kind of profession so everyone including the healthcare workers (doctors, nurses and supportive personnel), patients and at the same time employees who are directly working with people in any business can get benefit from this research.

Additionally, in a competitive healthcare market, knowing your customers is critical. Patient mortality can be reduced if the healthcare system is improved.

Providing high quality services is a requirement for the success of service organization since service quality influences patients' perceived value, their satisfaction and faithfulness; therefore, the improvement of service quality has become the management agenda (Izadi, 2017; Sahney, 2006). Good service has a beneficial impact on customer satisfaction, according to Tabash et al. (2019). Service quality is described by Parasuraman et al. (1985) as offering great service and exceeding client expectations. The hospital's image will also be influenced by its service quality (Kalaja et al. 2016).

Besides measuring the level of burnout in healthcare personnel, the author is going to investigate hospital perceived quality service and patients satisfaction using

developed SERVQUAL scale. At the same time the author will investigate if there is any link between level of burnout in staff and hospital perceived quality service and patients satisfaction.

The rest of the paper is organized as follow:

In the following section, the study background, research problem and questions, research objective, importance of the research and theoretical/conceptual framework, then the literature review, related theory and research context are presented, after that research methodology including; research model and variables, research hypothesis, sampling and data collection methods are developed, afterwards findings and discussion about study 1 and study 2 are presented, finally the author concludes with theoretical and practical implication as well as limitations and suggestions for the future.

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Background of the study:

Since the emergence of COVID 19, it has entirely transformed the lives of millions of people including health care professionals worldwide. According to WHO 2022, there has been 440,807,756 confirmed cases and 5,978,096 deaths worldwide. WHO also has estimated that between 80 000 and 180 000 health care workers could have died from COVID-19 between January 2020 to May 2021, converging to a medium scenario of 115 500 death (WHO, 2022). Healthcare workers are among one of the groups of professionals have been severely affected by COVID 19 due to not only being exposed to patient but also their overload which has been threatening their wellbeing and causing burn out among them. Although burn out may have been common among healthcare professional in some hospitals depending on the type of their treatment and types of patients they take on, since COVID 19 started, it became a serious problem, especially in developing and under developing countries. Some of the main reasons behind this are access to limited resources, health care works being at high risks of exposure to occupation hazard, long working hours , lack of sufficient sleep, imbalanced work life, being stuck in moral obligations whether to take care of themselves or the dilemmas of doing their job for the patients, negligence of family and personal needs with increased workload, and lack of sufficient communication and access to updated information (Raudenská et al., 2019; Steinerová et al., 2019; Javůrková et al., 2019; Urits et al., 2019; Kaye et al 2019; Viswanath et al., 2019; Varrassi et al., 2019). Similarly, Brooks et al., (2020) state that the COVID 19 exposes the health care professionals in a high level of risks of getting infected and being overwhelmed by the health care system while caring for their patients. In addition, Xian et al., (2020) insisted that the current COVID situation has put health care professionals in a very difficult situation in which they have to make far reach ethical and moral decisions. Recent reports from the year 2020 indicates that the burn out has caused mental health issues amongst physicians and frontline health care workers who were affected by the COVID-19 pandemic (Khan et al., 2021; Abeid et al., 2021). Burnout is a phycological condition that develops when people are prone to a highly stressful work environment and with high demand professionals, especially with

limited resources (Pingel et al., 2011; Shiao et al., 2021). Apart from risk of getting infected to COVID -19, Health care workers have other concerns such as worrying on infecting family members, ambiguity in accessing rapid testing facilities for themselves and their family members, loosing patients, feeling of helplessness etc.(Griffiths et al., 2021; Ullah et al., 2021).Thus, it has been reported that there have been increased phycological and mental health issues such as anxiety, depression, insomnia etc. among health care workers (Katsaounou et al., 2020). There are many other factors that have affected the professional performance and mental, physical, emotional well-being of the health care work

1.2 COVID-19 Background:

The first human cases of COVID-19, the disease caused by novel coronavirus causing COVID-19, subsequently named SARS-CoV-2 were first reported by officials in Wuhan city, China in December 2019, retrospective investigation by Chines authorities have identified human cases with onset of symptoms in early December 2019 while some of the earliest known cases had a link to wholesale food market in Wuhan, some did not. Many of the initial patients were stall owners, market employees, or regular visitors to this market, Environmental samples taken from this market tested positive for SARS-CoV-2, further suggestion that the market in Wuhan city was the source of this outbreak or played a role in the amplification of the outbreak, then the COVID-19 has spread globally, has been having millions of confirmed cases and has been sacrificing millions of people around the world and now it has become a global crisis.

All available evidence for COVID-19 suggests that SARS-CoV-2 has zoonotic sources. Since there is usually limited close contact between human and bats, it is more likely that transmission of the virus to human happened through another animal species, one that is more likely to be handled by humans. This intermediate animal host or zoonotic source could be a domestic animal, a wild animal, or a domesticated wild animal and as of yet, has not been.COVID-19 is diseases caused by the “novel virus” common symptoms are fever, dry cough, breathing difficulty. Some patients also have aches and pains, nasal congestion, running nose, sore throat or diarrhea. About %80 of confirmed cases recover from the disease without any serious complications. However, one out of six people who gets COVID-19 can become

seriously ill* and develop difficulty in breathing. In more severe cases, infection can cause severe pneumonia and other complications which can be treated only at higher level facilities (District Hospitals of above). In few cases it may even cause death.

COVID-19 spreads mainly by droplets produced as a result of coughing or sneezing of a COVID-19 infected person. This can happen in two ways: direct close contact and indirect contact. In direct close contact one can get the infection by being in close contact with COVID-19 patients (within one meter of infected person), especially if they do not cover their face when coughing or sneezing. In indirect contact the droplets survive on the surfaces and clothes for many days. Therefore, touching any such a surface or cloth and then touching one's mouth, nose or eyes can transmit the disease. The incubation period of COVID-19 (time between getting the infection and showing symptoms) is 1 to 14 days. Some people with the infection, but without any serious symptoms can also spread the disease. We have been experiencing different variants of COVID-19 such as Alpha, Delta, Omicron and more after each wave of this disease

1.3 The Research Problem:

In the research problem the author is looking for the negative impacts of COVID-19 on the levels of burnout in staff, sustainable quality service and patient satisfaction in healthcare institutions (hospitals) in Afghanistan. The factors which cause different levels of burnout in staff, affects sustainable quality service negatively and reasons that leads to patients' dissatisfaction during COVID-19.

1.4 The Research Questions:

There are many questions regarding the topic but the most important and summarized once are below:

- What are the different levels of burnout in staff at healthcare institutions during COVID-19?
- Which healthcare professionals or workers get the high, moderate and low level of burnout at healthcare institutions during COVID-19?

- Which factors affect the perceived quality service negatively in a healthcare institution during COVID-19?
- What are the main reasons or factors that lead patients' dissatisfaction?
- What is the link between the level of burnout in staff and patients' perceived service quality and satisfaction?

1.5 Research Objective:

The goal of this research is to investigate the level of burnout in staff, perceived service quality of patients, and patient satisfaction in healthcare institutions during crisis such as COVID-19 pandemic. The purpose is to highlight the link between the level of burnout in staff and patients' perceived service quality. The findings are expected to help in developing suggestions about how to have sustainable quality service and customer satisfaction at hospitals by decreasing the level of burnout in staff. It will find outs that what can be done to prevent them in the future in order to have sustainable quality services and prevent and manage such health crisis well in the future and for the health institutions to survive and keep long-term profitability.

1.6 Importance of the Research:

Health institutions across the world are strained at every level during Covid-19 health crisis also COVID-19 increased the burnout and it's levels among the healthcare professionals so It affected the quality of sustainable health care services to patients and thus, it damaged their reputations for poor quality services. However, some hospitals were able to manage their services better than the other. Thus, due to poor quality services and poor customer, satisfaction during crisis, the patients would not use these services from the health institutions anymore even if they improve them. It is important to study why health care institutions experienced such unprecedented surge of customers and the reasons behind poor quality of services which dissatisfied a lot of the patients. Therefore, it is important to support the delivery of optimized healthcare and to provide sustainable quality health care services to patients all the time to create a successful customer experience and a successful business. Customer satisfaction is a major contributor to guaranteeing a health institution long-term profitability, customer retention, loyalty, and trust. The implications of the study will

equip the health care institutions in under developed countries to deal with such health crisis well in the future and for the health institutions to survive and maintain long-term profitability.

1.7 Theoretical/Conceptual Framework:

In this study, the author will investigate the level of burnout in staff and how perceived service quality during crisis such as Covid-19 influence customers' satisfaction through our theoretical framework. Since the researches on this topic are still new, the theoretical framework will be a combination of the work of the existing frameworks and theoretical/conceptual framework based on the author's newly created ideas once the comprehensive investigation of the topic will begin. However, the first study which is level of burnout in staff does looks upon BojanaMatejic et al. (2015) conceptualize level of burnout as three dimensions; Emotional Exhaustion (EE), Depersonalization (DP) and Personal Accomplishment (PA) construct, using original 22-items version of the Maslach Burnout Inventory–Human Services Survey (MBI-HSS) and second study which is hospital perceived service quality and patients' satisfaction looks upon Arasli et al. (2005) conceptualize service quality as six dimensions such as empathy, relationship, giving priority to inpatient's need, professionalism of staff and food construct using developed, test and modified SERVQUAL scale. This approach provides a more thorough theoretical framework for probing the relationships between service quality also look at Adhikari et al. (2021) for overall patients satisfaction.

CHAPTER TWO
LITRATURE REVIEWS

2.1 Literature Reviews:

In the literature reviews the author will focus on other recent researchers' findings, definitions and theories regarding the topic of the study.

2.1.1 Burnout (BOS) – Definition and Development:

Although diverse definitions have been construed for burnout, most authors

There have been different interpretations of the definitions of burnout among different authors. However, most of them consider it a phenomenon that is result due to the chronic work-related stress. Comprehensively, burnout is defined as a state through which an individual is overwhelmed by the emotionally, physically and mentally caused by being under stress for long time. Burnout takes place when an individual is emotionally drained and is not able to meet the continuous demands of their daily work. When this happens, the individual starts to lose interest and lack motivation to take on or fulfill their responsibilities.

Other negative effects of burnout are that it decreases productivity and drains energy causing feelings such as helplessness, hopelessness, pessimistic and resentful. Eventually, it makes the person feel unproductive and useless. These negative effects impact every area of life including home, work and social life. It can also affect body in the long term to be vulnerable to different illnesses such as cold and flu. Thus, it is very important to deal with burn out before it destroys an individual's life.

Burnout is classified as an occupational phenomenon in the 11th Revision of the International Classification of Diseases (ICD-11), according to WHO (2019). It is not regarded as a medical ailment. Burnout is characterized as follows in ICD-11:

"Burn-out is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It is characterized by three dimensions:

- Feelings of energy/depletion or exhaustion;

- Increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and
- Reduced professional efficacy.

Burn-out refers specifically to phenomenon in the occupational context and should not be applied to describe experiences in other areas of life"

As a whole, burnout is defined as an individual's response to prolonged work-related stress that develops gradually and eventually becomes chronic, resulting in health changes (Montero-Marin, 2016).

From psychological stand point, this condition causes damages to the emotional, mental and attitudinal health (Maslach, 2006). Nevertheless, burnout is not a personal problem, but it occurs due to certain characteristic of work-related activities (Bouza, 2020).

Historically, the term burn-out was coined by Graham Greene in his novel "A Burn-Out Case "for the first time. In this novel, he relates the story of an architect who had lost his sense of purpose in his job and had no joy in life. Later, Freeudenberger used and introduced the term in the field of psychology, in which he designates burn out as a state of being exhausted and frustrated as a result of professional activities that gives an individual the feeling of failure and not being able to produce quality work and meet the expectation.

Initially, the term was used to exclusively refer to the overwhelming feeling that volunteer workers have in a care center where they take care of those with mental disorders and social related problems. Due to the nature of their whelming work related activities, these workers lack enough energy and felt exhausted and demotivated. They also started to exhibit aggressive behaviors to those using the service at the care center.

Maslach & Jackson (1981), many years later and after multiple empirical experiments, reconstructed the notion burn out and developed a more demanding and functioning definition, as a psychological condition marked by emotional weariness, demoralization, and a diminished feeling of professional performance that can affect caregiver, you can see in (Table 1).

The evaluation of burnout as a syndrome, which is defined as a snapshot or group of symptoms and indicators that present at the same time and clinically characterized by certain condition different from others, is where the two definitions diverge.

Some authors, however, claim that these three dimensions are not entirely distinct. As a result, numerous definitions may be found in the literature that can overlap but could be dissimilar.

The distinction between them is which dimension arises first when faced with job stress (emotional overtiredness or demoralization). Although clear proof has yet to be found, longitudinal investigations have revealed a causal relationship between the fundamental aspects of burnout.

As a result, significant degrees of emotional weariness result in pessimism or demoralization (Taris, 2005)

Similarly, exhaustion and depersonalization, according to empirical investigations, are the fundamental or main features of the condition of being burned out at work.

Similarly, empirical research show that weariness and depersonalization are essential or key features of the burnout condition, but a loss of professional happiness is considered as an antecedent or possibly an outcome of burnout (Schaufeli., 2003).

Table 1. Dimensions of Burnout.

Dimension	**Definition**
Emotional Exhaustion	It appears as sentiments and sensations of exhaustion as a result of work-related psychological exertion. Weariness, exhaustion, fatigue, and weakness are additional characteristics used to depict it. Individuals who experience these feelings have a hard time adjusting to their new workplace since they lack the emotional energy to complete duties.
	Detachment, apathy, and unconcern about the task at hand and/or the people who receive it are all symptoms of this type of burnout.

Cynicism or Depersonalization	It manifests itself through unpleasant or improper actions and attitudes, impatience, a lack of optimism, and social disengagement, most commonly directed against customers, patient, and service users.
Reduced Personal Achievement	It is expressed in a negative professional self-assessment and questions about one's capacity to execute the work successfully, as well as a stronger proclivity to adversely judge results. This also corresponds to poor quality of work and capacities, as well as demoralization and stress management.

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, *International Journal of Environmental Research and Public Health*, Spain, 2-27.

Furthermore, despite the fact Maslach and Jackson's (1981) definition of burnout has been the most commonly acknowledged, the scientific literature has different definitions or interpretations. Salanova et al. (2005), for example, reframe these techniques and present an expanded burnout model that incorporates:

- Exhaustion (in general, as a result of a breakdown in the person's connection with their employment.)
- Mental distance that involves skepticism (detached attitudes towards work as a whole)
- Cynicism (distant attitudes toward labor as a whole) and depersonalization are two types of mental detachment (detached attitudes towards those that they work for and who they work with)
- Professional inefficacy (the feeling of being incapable of doing the tasks with high quality and being unskilled).

2.2. Subtypes of Burnout:

Mortero-Marin (2016) posits, as a supplement to the single definition of burnout, that emotional exhaustion at workplace does not always manifest in the same manner. Instead, there are three variants of burn out that are dependent on employees' commitment to their professional activity (Figure 1). These subcategories also may be thought of as phases wherein worker devotion towards their profession deteriorates with time and has ramifications when it comes to deciding which intervention to use. (Mortero-Marin, 2014). Burnout is a growing condition, according to this theory, with a subsequent decline in levels of interest that progresses from exuberance to indifference (Mortero-Martin, 2016).

Burnout is thought to be associated with the frenzied subtype's excessive participation. Because maintaining this level of effort without becoming weary is difficult, the professional might establish a precautionary distancing.

This separation could alleviate employees from excessive effort, but it comes at the cost of dissatisfaction in the subtype with the least amount of competition, on the long run, these results in a lower sense of effectiveness, that gives rise to ineffective coping techniques, which are more common in the worn-out subtype.

Indeed, empirical investigations recommend a gradual decline from frantic to under-challenged and worn-out behavior (Demarzo, M., 2020).

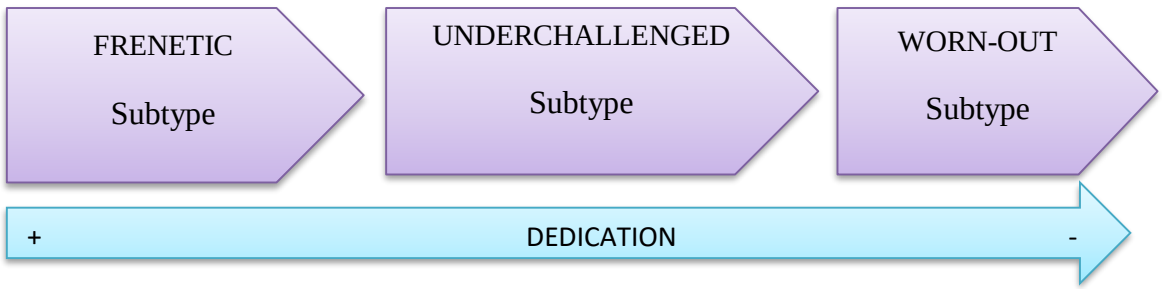

Figure 1. Burnout profiles and subtypes.

Source: Edú-Valsania et al. (2022. p4).

The frenetic subtype is common in workplaces with overburden and people who labor until they're exhausted; and it is much more common in employment with rotating shifts, part time employment, and, in general, conditions that requires employees to be considerably extra active in order to maintain their positions. It's a sort of burnout in which employees are more committed to their jobs.

On a level of performance, these employees have a high degree of participation and a strong desire to actively solve issues, over which they put in a large amount of overtime each week or perform many tasks simultaneously. For all these factors, this personality type is linked to high degrees of burnout and a sense of alienation in both professional and personal life. This uncontested subcategory is common is indicative of tedious and unengaging occupations, with continuous, technical, and regular duties that do not offer employees with the requisite contentment, with workers stating that the work is not satisfying and tedious. As a result, employees display apathy, apathy, and a loss of personal growth, as well as a yearning to switch employment.

This form of burnout is associated with the greatest degrees of negativity and an escapism coping mechanisms centered on avoidance or mental aversion, as a result of a loss of affiliation with work responsibilities.

The worn-out subcategory is marked by feelings of pessimism and a lack of control over the outcomes of their labor, as well as a lack of appreciation for the efforts made, leading them to choose neglect and desertion as a reaction to any problems. As a result, it is the profile in which the employee displays the least amount of devotion. As a consequence, this type of profile is closely linked to a sense of inefficiency and a sedentary approach to stress management, focused mostly on behavioral disengagement that leads to a high perception of ineptitude and excessive guilt.

2.3 Reasons behind Burnout and its Development:

Since the term's first emergence in scientific literature, a variety of methods have evolved in an attempt to solve the problems of why burnout occurs and how it progresses. In this part, we'll go over the most recent and empirically validated burnout theoretical explanation, keeping in mind that, rather than being hostile, they're compatible and give a more holistic understanding of the condition.

In particular, the following theories are being discussed in detail:

- Theory of Cognitive Social Interaction.
- Theory of Social Interchange.
- Organizational theory.

- Theory of Structure.
- Theory of Job Requirements vs. Available Resources.
- Contagion of Emotions Theory.

2.3.1 Theory of Cognitive Social Interaction:

Characteristics such as self-efficacy, self-assurance, and self-concept play a vital role in the onset and progression of burnout in this approach (Pines, 2002; Cherniss, 1993). As a result, this condition is provoked whenever an individual has uncertainties about their own or their group's capacity to attain performance objectives (Llorens, 2005; Manzano, 2013). These techniques were supported by a research of 274 secondary school teachers in Spain, which found that burnout happened after the crises of professional effectiveness catastrophes (Llorens, 2005).

The following situations enhance the formation of inefficacy expectations or effectiveness crises, (Llorens, 2011):

- Negative failure experiences in the past.
- Deficiency of mentors who may have gone through and conquered similar challenges.
- Absence of direct support for the work.
- Workplace difficulties, such as a lack of feedback on accomplished tasks or unnecessary undesired comments

In this sense, efficacy crises would lead to poor career contentment, which, if allowed to persist, would lead to emotional weariness and subsequently pessimism as a stress coping mechanism.

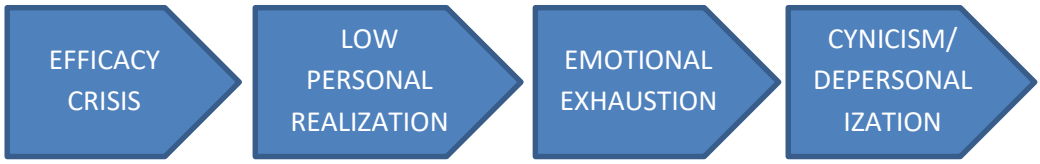

Figure 2. Burnout development is predicted by the socio-cognitive theory of self-efficacy.

Source: Edú-Valsania et al. (2022. p5)

2.3.2. Theory of Social Interchange:

According to the Social Exchange Theory, burnout happens when a person sees a disparity between their efforts and contributions and the outcomes they achieve at work (Schaufli, 2011). This absence of recompense, which can occur with clients, coworkers, superiors, and organizations, deprives professionals' emotional resources, resulting in persistent emotional weariness. Burnout might be induced by the high interpersonal responsibilities of interacting with emotionally consuming clients/users in this strategy. Depersonalization or cynicism is employed as a stress coping method to avoid touch with the initial source of discomfort, resulting in low personal fulfillment (Figure 3).

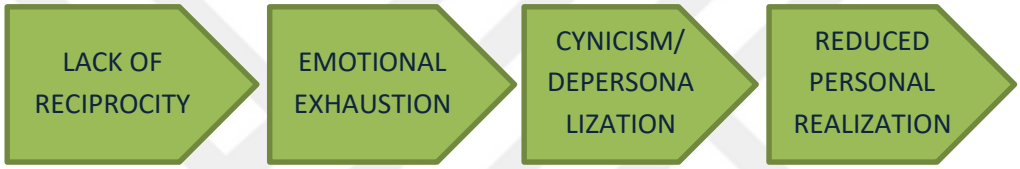

Figure 3. Social exchange theory predicts the progression of burnout.
Source: Edú-Valsania et al. (2022. p5).

2.3.3 Organizational Theory:

This theory considers that burnout, according to this perspective, is caused by a combination of organizational and job stresses (see Section 3.1.1) and ineffective individual coping techniques (Cox, 1993; Golembiewski, 1983). There are two potential models to describe the links between burnout aspects within this Theory. Burnout, as Golembiewski et al. (1983) state, begins when stressors inside the organization or, hazard elements, like as task overburdening or position uncertainty, present, and some employees demonstrate a decline in organizational commitment as a coping technique, which is akin to pessimism and dissociation.

Burnout syndrome develops as a result of the person's lack of personal contentment at work and emotional weariness. The first indicator of burnout is depersonalization, which is followed by a low sense of self-worth and, lastly, emotional exhaustion. The concept put out by Cox et al. (1993) is an alternative in which the first syndrome of this conditions emotional weariness produced by long-

term work pressures. When faced with emotional fatigue, depersonalization is used as a coping method, and the outcome is a lack of personal fulfillment.

2.3.4 Theory of Job Requirements VS. Available Resources:

According to this theory, burnout happens when the expectations and resources received from work are out of balance (Bakker, 2017). Employment demands are those professional aspects that necessitate prolonged physical or mental effort and are linked to physiological and psychological expenses owing to hypothalamic–pituitary–adrenal axis activation (e.g,, idiosyncratic exhaustion, decreased attention span, and re-evaluation of task requirements). Work overload, emotional demands, time constraints, and interpersonal conflicts are all common workplace demands. A condition of physical and mental tiredness is generated when recuperation in the face of such demands is insufficient or inadequate. On the other hand, work resources, relate to the physical, mental, organizational, or social aspects of job that can help minimize work demands and accompanying physiological and mental costs, as well as be crucial in attaining work goals. Workplace resources may be both organizational and personal (Table 2). When demands outnumber resources, exhaustion sets in; if this imbalance persists over time, exhaustion becomes persistent, and burnout sets in. As a result, work demands have a strong and significant association with burnout, particularly emotional weariness, but job resources have a negative correlation with depersonalization, diminishing or lowering its usage as a coping technique.

Table 2. The following is a list of the most important job requirements and resources.

Job Demands	Job Resources
-Pressure that is only there for a short period of time. -Conflicts with clients and coworkers on a personal level. -Difficulty of the task -Uncertainty about one's job -Changes in the timetable that are unfavorable -Work that is both qualitative and quantitative Overburdening -Personal workplace dangers.	Individual Technical abilities and expertise Social and emotional abilities Mental capital that is positive (self-worth, hopefulness, optimism & pliancy) Creativity Organizational Flexibility of time

	Job stability Support from a supervisor and peers Resources (material) Independence Compensations

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

2.3.5 Theory of Structure:

This viewpoint asserts that burnout is a reaction to continuous workplace tension that occurs when the individual's coping techniques for dealing with job stresses fail. Workplace stress will first prompt a variety of coping mechanisms. When coping tactics aren't successful at first, they result in career failure and feelings of poor personal satisfaction at job, as well as emotional fatigue. When confronted with these sentiments, the individual generates de-realization attitudes as a novel type of coping. (The cycle is shown in Figure 4.) As a result, burnout has negative repercussions for both individual and organizational health. Different professional groups, such as teachers and nurses, have been empirically compared to this paradigm (Manzona, 2000).

Figure 4. Structure theory predicts the progression of burnout.
Source: Edú-Valsania et al. (2022. p5).

2.3.6 Emotional Contagion Theory:

Emotional contagion is the propensity to reflexively replicate and coordinate facial features, tones of voice, stances, and behaviors with that of others, resulting in emotional involvement with them (Hatfied, 1993). When individuals work together, they frequently share experiences and feel shared emotions like despair, fear, and

tiredness. As a consequence of this notion, burnout is said to arise in work groups, because shared views and emotions are formed via social contact (Llorens, 2011). This burnout progression has seen in education, healthcare personnel, and among couples (Bakker, 2017)). As a result, both inside and outside the workplace, emotional contagion affects the onset of burnout (Bouza, 2020; Petitta, 2020).

2.4 Types of Burnout and Risk factors:

The antecedents are the factors that will encourage, cause, and/or keep persons with burnout syndrome suffering. These aspects can be divided into two groups in general:

- Individual elements such as the worker's personality or coping mechanisms
- Organizational ones such as the workload or emotional demands involved.

It's vital to note that burnout is mostly exposure's outcome to particular work settings, rather than an individual quality like a personal characteristic. Therefore, things relating to work (whether it content, administration, or interactions with customers, clients, supervisors, and/or coworkers) would be the primary causes of burnout. However, it is thought that, while organizational variables might cause burnout on their own, some individual traits can function as a moderating element. Thus, personal characteristics such as a scarcity of self-assurance or the use of stress-relieving coping mechanisms may enhance the development of situational influences. Other personality traits, such as positivity or stress management can reduce or even slows downs the undesirable effect of organizational factors of burn-out and its consequences.

2.4.1 Organizational Related Factors:

In terms of situational variables, a study of the scientific literature (Adriaenssens, 2015) found that, in overall, types of activities performed, how they are structured, Coworkers, management, and customer connections are all potential sources of burnout or adverse outcomes.

2.4.2 Work Overload:

When workload is overwhelming, both quantitatively and qualitatively, it necessitates continuous effort, resulting in physiological and mental consequences. As a self-defense strategy, such symptoms can lead to feelings of burnout and psychological detachment from work (Maslach, 2017)

2.4.3 Emotional Labor:

Emotional labor is described as the mental process of self-regulating one's emotions and exhibiting the emotions desired by the organization. It entails suppressing or concealing feeling of anger, discomfort, or unpleasantness in required to conform with organizational rules and job objectives, and also the exhibit of emotional responses not felt, such as sympathy for customers or users when the opposite is genuinely felt, or serenity in situations where fear is truly felt. As a consequence, emotional labor will have a higher workload. Various studies have found a favorable association between emotional labor and burnout in several occupations, including teachers (Kim, 2018) and HR department employees (Mustafa, 2016).

2.4.4 Workplace Autonomy and its Influence:

Higher degrees of burnout have been linked to a lack of independence at work when executing activities, as well as the incapacity to influence job-related decisions. Burnout is reduced and professional contentment is higher when professionals have autonomy and control over their job (Maslach, 2017). Several studies have revealed a negative association between burnout and empowerment, with the higher empowerment reported by workers resulting in lower levels of burnout (Orgambidez, 2019; Kaya, 2018).

2.4.5 Ambiguity and Role Conflict:

Burnout is raised when an employee does not know what is expected of her or him or/and does not have adequate knowledge about her/his goal (role ambiguity), or when the many duties and expectations that must be met are incommensurate or irreconcilable with one another (role conflict) (Acker, 2003).

2.4.6 Inadequate Supervision and Injustice Perception:

The perception of insufficient supervision (for example, excessively demanding and unjust by only focusing on the negative elements without rewarding successes and efforts, or, on the other extreme, not at all directive or non-existent) raises the risk of burnout. Fair treatment of employees, on the other hand, promotes the expansion of available resources while also having a negative impact on emotional weariness, making workers less prone to acquire burnout symptoms (Laschinger, 2015).

2.4.7 Lack of Perceived Social Support:

Burnout is triggered by a lack of social support at work, whether from coworkers or superiors, as well as internal disagreements among colleagues. Social support, on the other hand, has been discovered to function as a break on this condition (Boland, 2019).

2.4.8 Poor Working Hours:

Burnout can also be triggered by working situations that make it impossible to balance work and family life, such as rotating shifts, frequent rotations, night shifts, heavy workloads, or even a lot more overtime. Sleep difficulties, heart issues, health complaints, job discontent, poorer concentration and performance, and an elevated risk of accidents are all linked to such hourly features (Maslach, 2017).

2.5 Individual Factors Modulating Burnout:

In terms of individual determinants, personality characteristic and socio-demographic factors, as well as coping techniques, have indeed been studied as predicting or accelerating the development of burnout in the existence of some of the organizational characteristics discussed above.

Table 3. Individual burnout modulators.

Protectors of Burnout	Boosters of Burnout
Awareness Cooperativeness Openness to experience Psychological empowerment Coping that is problem-oriented	Emotional dysregulation External center of control Monomaniacal Cold-hearted Coping with emotions

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

Personality shapes how individuals see their workplace and, as a result, how they handle and deal with job demands and job resources. Several research (Perez-Fuentes, 2019; Galaiya, 2020; Kim, 2019) have found that the Big Five personality qualities model (assertiveness, emotional stability, openness to experience, social competence, and extraversion; (McCare, 1987) are substantially but variably related with burnout. As a result, openness to experience and the elements of burnout have been discovered to have a negative relationship. Openness to experience will operate as a buffer against burnout. Burnout has been demonstrated to have a favorable relationship with neuroticism or emotional instability. Thus, persons who are emotionally unstable are more likely to experience burnout.

Agreeability is another personality trait that has been demonstrated to protect against burnout, with more agreeable employees experiencing less burnout than their less agreeable counterparts. Similarly, work engagement, or the proclivity to act appropriately and consistently, lowers the risk of burnout. Finally, while it is positively connected with professional efficacy and adversely associated with depersonalization, extraversion, which reflects features related to range of interests and creativity, has protective effects against burnout.

Competitiveness, impulsivity, irritability, and hostility are all characteristics of the Type A behavior pattern, which has been linked to a variety of health problems. This kind of conduct is linked to the burnout elements of emotional depletion and depersonalization. Furthermore, the amount of burnout is connected to the level of expectations that employees have about their job, such that higher demands and greater goal setting contribute to larger efforts, and hence higher levels of emotional weariness

and depersonalization (Adriaenssens, 2015; Maslach, 2017). The degree to which a person is involved appears to be essential as well. Over-involvement, in particular, has been identified as a powerful trigger, particularly when attaining may be unachievable. Worker discontent and burnout can result from this misalignment of expectations and realities.

In terms of socio-demographic characteristics, reviews of research (Adrianensses, 2015; Maslach, 2017) show that age and burnout have an inverse connection, with people experiencing lower degrees of burnout as they get older. However, the outcomes are not always predictable. According to a comprehensive analysis of the factors that influence burnout (O'Connor, 2018), there is a considerable link between growing age and the danger of depersonalization; however, there is also a greater level of personal achievement.

In terms of gender, most research show that women are more likely to experience emotional weariness and poor professional accomplishment, whilst males are more likely to experience depersonalization. When it comes to marital status, unmarried employees (particularly men) are more at risk of burnout then married once.

Another factor that contributes to the development of burnout is coping techniques (Lee, 2016; Friganovic, 2019). Even though there are various types of coping, emotional oriented coping is one of them (Lazarus, 2017). Problem-focused coping involves attempting to intervene directly in the difficult situation, whereas emotion-focused coping involves changing adverse feelings responses to stressful situations rather than interfering. According to empirical research, avoidance and emotion-focused coping are positively connected to burnout, favoring it, whereas active and problem-focused coping are negatively related to burnout, reducing it. However, not all emotion-focused coping mechanisms cause burnout; in certain circumstances, seeking social support, reappraisal, and religious support might help prevent burnout (Boland, 2019).

On the other hand, it has been suggested that the efficiency of problem-focused coping may be dependent on an individual's ability to exercise control over prospective workplace stresses. When there is limited chance of managing and/or reducing environmental stressors, using problem-focused active coping techniques may worsen the negative consequences of job stress; in such cases, it is more beneficial to adopt

coping strategies to assist situation adaptability. As a result, it is impossible to conclude categorically that emotion-focused coping mechanisms are always negative, because problem-focused coping appears to be highly adaptable only in situations that are within one's control, whereas avoidance-oriented coping appears to be adaptive in situations that are beyond one's control (Costa, 2017).

2.6 Signs and Consequences of Burnout:

Burnout has a variety of negative implications for both the individuals who suffer from it and the organizations in which they work. These impacts are initially psychological, but if they are sustained over time, they will have negative effects on employees' physical wellbeing and behaviors, which will have unfavorable organizational repercussions (Salvagioni, 2017).

2.6.1 Psychological Consequences:

At both the cognitive and emotional levels, the symptom of being burned out at work causes psychological changes. This syndrome has been linked to attention and memory issues, trouble making decisions, lower coping capability, anxiety, depression, discontent with life, low self-esteem, sleeplessness, restlessness, and elevated alcohol and cigarette intake in several studies (Salvagioni, 2017; Maslach, 2016). Other researchers have discovered that this condition is associated with a high risk of suicide (Bayan, 2018)

2.6.2 Well-being Consequences:

Employees with greater degrees of burnout are more prone to have musculoskeletal discomfort, gastrointestinal changes, cardiovascular disorders, headaches, increased sensitivity to infections, sleeplessness, and chronic weariness, according to several research (Giorgi, 2017). Burnout has also been associated with increases in blood cortisol levels, which is a risk factor for type 2 diabetes (Penz, 2018). (Melamed, 2006). Now, these symptoms do not have to appear in the same manner in every person, nor do they have to occur at the same time.

2.6.3 Behavioral Consequences:

Apart from mental and physical unwilling being, burnout is also linked to job discontent (Rossler, 2012), poor organizational engagement (Salvagioni, 2017), higher absenteeism (Ahola, 2017), turnover intention (Han, 2016), and performance decline in general (Adriaenssens, 2015). Some employees with burnout syndrome, on the other hand, may be justified in quitting their jobs; yet, others choose to stay (Metin, 2016). This could result in low work productivity (i.e., people go to work despite not being able to fully execute their tasks owing to health concerns).

Burnout may also result in unethical and unproductive behaviors in employees, as well as hostility among coworkers and against clients, the use of alcohol and psychotropic drugs, the embezzlement of work premises, and event theft (Bayan, 2018; Giorgi, 2017; Metin, 2016; Ugwu, 2017).

Individual effects (psychological, physical, and behavioral) do not always take the same form or evolve in the same way. In this regard, four degrees of burnout syndrome have been identified (Guitart, 2007), despite the fact that defining them is not always straightforward.

Mild: Those who are afflicted experience mild, unspecific bodily symptoms (headaches, back discomfort, back pain), weariness, and become less active.

Moderate: sleeplessness, as well as memory and concentration problems, emerges. At this stage, the individual is emotionally tired with emotions of anger, ineptitude, guilt, and low self-esteem, as well as anger, cynicism, exhaustion, tedium, and increasing lack of drive.

Severe: excessive tardiness, task avoidance, and detachment, as well as alcohol and psychotropic medication misuse, are all symptoms of severe depression

Extreme: isolation, aggression, nervous breakdowns, persistent depression, and suicidal tendencies are all examples of extreme behaviors.

2.6.4 Organizational Consequences:

Employees that are burnt out have an impact on the rest of the organization, producing more confrontations or disrupting job activities, diminishing productivity and lengthening production timelines (Maslach, 2016). As a result, as the emotional contagion hypothesis suggests, burnout can have "contagion consequences," resulting

in a terrible working environment (Bakker, 2017). As a result of absenteeism, inefficiency, and unproductive conduct, this condition frequently results in considerable financial losses (Ugwu, 2017).

2.7 Prevention Approaches:

To begin with, choose the most appropriate form of preventive intervention.

Primary prevention is the best aligned with the aims of an occupational risk prevention management system because it provides workers with necessary support, job modifications, awareness, and proper training to cope with psychological risk.

Conversely, Secondary prevention is used after the first signs of burnout have shown. It is not directed at all employees, but just at those who have already been affected, and its goal is to ensure that the symptoms do not worsen, therefore enhancing the person's response to stresses. These treatments are more focused at individuals than at organizations, with the goal of changing attitudes and boosting coping resources, but that does not rule out organizational interventions. Ultimately, secondary prevention focuses on workers who are already burnt out. The goal of this kind of treatment is to mitigate the most significant consequences (for example, substantial health issues and/or poor work performance). Because this sort of intervention aims to repair the worker's bodily and/or psychological harm, it is regarded as reactive rather than proactive.

From a different angle, we'll categorize interventions based on the intervention's promoter, or the person who organizes, chooses, and, if required, finances the measures to be taken. Interventions can be divided into the following categories in this regard: From another perspective, we will classify the interventions considering the promoter of the intervention, that is, who organizes, decides and, if necessary, finance the actions to be carried out. In this sense, interventions can be classified as follow:

1- Promoted by the organization, which in turn could be subdivided into actions directed at the organizational and job structure and actions directed at employees,
2- Promoted by individuals, which could also be subdivided into interventions directed at oneself as an individual and interventions directed at improving

one's interaction with the organization and with aspects of the job (Table 4).

Table 4. Summary of burnout interventions

Promoted by the Organization		**Promoted by the Worker**	
Aimed at the Structure	**Aimed at Employees**	**Aimed at Oneself**	**Aimed at Aspects of The Job**
Content and workstations are being improved. Work schedules should be more humanized, and work-life balance strategies should be implemented. The growth of managers' leadership Use of non-monetary incentives and rewards The creation of welcoming programs Monitoring burnout and creating custom-made programs Occupational Health and Safety Services are becoming more institutionalize	Training Strengths-based interventions Guidance and coaching Forming - support	Workout Practice of mindfulness Self-assessment Counseling	Organize your time. Creating a job

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

2.7.1 Organizational Interventions for Workplace Structure:

Below is the list of strategies aimed at lowering workplace pressures and boosting workers' access to organizational resources (Le Blanc, 2008; Schaufeli, 2006). Increasing job performance Characteristics: Through two major tactics, these measures are primarily targeted at reducing the quantitative work load and improving the quality of work.

1. Work new design: this strategy tries to modify the job's objectives and duties in part while increasing the quality of work by removing structural and/or

procedural factors that cause stress (Grant, 2009). It might also be referred to as work redesign, which entails the addition of new and more interesting duties to make occupations more inspiring and fulfilling.

2. Adjustment of experience times in response to prospective stresses. This can be accomplished by limiting the amount of time the worker is exposed to the most stressful aspects of the job (for example, user or patient attention) through job rotation, or, if necessary, by performing other jobs or activities (De Simone, 2021; DeChant, 2019)

2.7.2 Humanizing timetables and putting work-life balance programs in place:

This intervention entails structuring and making work schedules and shifts more flexible so that personal and professional lives may be reconciled (Kossek, 2014). Varying work shifts and extended work hours over 8 hours should be avoided in this regard.

2.7.3 Supervisors' leadership development:

Work engagement or managers and leadership is seen as a valuable work resource that may help employees avoid burnout. However, not all supervisors lead in an effective manner. Authentic (Laschinger, 2015), transformative (Hildenbrand, 2018), and various (Kaya, 2016) leadership styles have been linked to reduced burnout and good benefits on employees' psychological resources in several research (Molero, 2019). As a result, there are leadership styles that should be established and educated in order to prevent this condition from occurring. Additionally, the performance of leaders, particularly leadership behaviors, should be examined on a frequent basis by others who deal with them in order to uncover possibly negative characteristics that might contribute to burnout.

2.7.4 Employing non-monetary rewards and incentives:

Employees can be driven by a variety of incentives, which do not always have to be monetary. Recognizing and rewarding good work is a powerful strategy to boost employee motivation and avoid burnout (Maslach, 2017).As previously stated, one of the elements contributing to efficiency crises, which in turn led to burnout, was a lack of supervisory reinforcement assessment. Other sorts of incentives, such as increased time flexibility (which can help with work-life balance) or protected time to pursue personally important work objectives, can improve well-being in addition to

acknowledgement of performance. Simple cash rewards, on the other hand, may be ineffective since they encourage overwork and pressure to meet objectives, both of which contribute to burnout.

2.8 Burnout monitoring and personalized plans:

This entails performing surveys and measures of workers on a regular basis to "monitor" the organization's burnout levels and comparing worker scores across units, locations, positions, supervisors, and other factors (e.g. Kannampallil, 2021). The goal is to recognize the onset of the initial symptoms and prevent the illness from becoming chronic. In addition to the degrees of burnout, it is critical that the business pinpoints the risk factors in the workplace that may exist so that they may be eliminated or minimized. Furthermore, because the way symptoms appear and which dimension is prevalent differs by work unit, treatments must be tailored to the causes and consequences/symptoms discovered in order to be effective.

2.8.1 Institutionalization of Occupational Health and Safety:

Companies' requirements to integrate departments or devices in their structure, in the form of agreements with other organizations, to promote worker wellbeing and combat burnout are referred to as this intervention (Herrera-Sanchez, 2017). This intervention can take the form of (e.g., Sorensen, 2014: Delivery of psychological programs on stress and burnout, which can be arranged in-house or outsourced.

- Employees struggling with work-related challenges can get help from counselors.
- This stage can be done inside the company or by outside service sources and referring the employee to a counselor.
- Referrals to specialized health promotion services including psychology specialists and healthcare professionals are available.

2.8.2 Employee-Focused Organizational Intervention:

This form of intervention tries to strengthen employees' personal resources to manage work-related pressures, which in turn helps to lower burnout levels.

2.8.2.1 Training:

Through training, employees can learn new skills and gain technical knowledge, which increases their adaptive resources and improves their self-efficacy expectations. Organizations should organize training actions focused at building different forms of both social and personal skills that help employees execute personalized methods to enhance their well-being and adjustment to the workplace, in addition to job-related technical abilities (Shanafelt, 2017; Vargas-Cruz, 2017). Table 5 is an example of burnout prevention and management training.

2.8.3. Strength-based Therapies

Strength-based therapies assume that, when faced with adversity, humans have personal resources that can be used to cope. It has a natural tendency to motivate and enjoyable to use strength. As shown in Table 6, a strengths intervention usually occurs in three stages.

2.8.3.1 Coaching and Guiding:

Coaching and guiding are non-directive strategies that enable employees to reclaim control of their emotional condition and well-being on their own, with no therapy "prescribed" by the coach/counselor. Instead, the coach/counselor will support the employee in developing coping methods on their own (or with some guidance) (Grant, 2017). In the early phases of the condition, when it is considered that the individual still has the ability to redirect it, this form of action is typical of secondary prevention.

2.8.3.2 Establishment of support groups:

Peer and team support has always been important in assisting professionals in coping with the problems and challenges of daily life. This assistance can take many forms, such as awarding prizes or forming organized support groups. In this regard, businesses can include activities into their work processes that foster a feeling of community, such as setting aside time to share ideas and expertise about how to act and cope with day-to-day professional issues (Shanafelt, 2017).

Support groups are any group of coworkers who meet on a regular basis to exchange information, provide emotional support, and/or solve work problems. What these groups have in common is that they provide recognition for completed work (even if objectives are not met), comfort, help, and companionship. The fundamental goal of the support group is to alleviate the professionals' feelings of isolation and emotional tiredness, as well as to share expertise in order to build effective problem-solving strategies. This is one of the most extensively used therapies for preventing burnout (e.g., two hours every two weeks), and its advantages have been consistently proved (Ahola, 2017). While the formation of support groups is an individual focal intervention, it is frequently promoted or should be by the organization.

Table 5. Organizational training initiatives to minimize burnout

Actions
Emotional management and self-control
Resilience, self-efficacy, hope, and optimism are examples of personal resources that can be developed.
Contrast resolution
Workplace pressure reduction
Organize your time.
Technical abilities required for the job
Resolving issues
Work in a group

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, *International Journal of Environmental Research and Public Health,* Spain, 2-27.

Table 6. Strengths-based interventions' generic phases

1-Assessment of Competencies	They generally end up with a list of the most important skills. evaluations and other instruments, like as surveys, are used to evaluate employees' performance. for this purpose, strength scales might be utilized.
2-Strengths advancement	Organizations frequently organize trainings, Seminars workshops and personalized training programs in which people are persuaded to explore and polish their capability by creating a specific action plan.
3-Use of strengths	It is attempted to match the sorts of work to be completed with the employees' strengths.

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Burnout: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

2.8.4 Individual-Focused Interventions Promoted by Individuals:

Workers initiate and determine these sorts of behaviors, which include physical exercise, mindfulness, self-assessment, and, if necessary, psychotherapy, and are focused at improving their mental and physical status totally outside of the workplace.

2.8.4.1 Physical Activity:

Based on numerous studies, physical exercise has been demonstrated to have a positive effect as a moderator in the effects of burnout on workers' health (Naczenski, 2017; Ochentel, 2018).

2.8.4.2 Training in Mindfulness:

On the studies reviewed by Luken et al. (2016) on healthcare professionals and teachers, found strong evidence to support the efficacy of mindfulness practice in reducing job burnout among healthcare professionals and teachers, with six of the eight studies demonstrating statistically significant decreases in job burnout after mindfulness training and seven of the studies being of fair to good quality.

2.8.4.3 Psychotherapy:

In the most severe and serious cases of burnout syndrome, psychotherapy is used, When burnout and its repercussions areal already being experienced Psychotherapy is primarily based treatment (Vargas-Cruz, 2017; Ahola, 2017). Although the organization may initiate this intervention, the choice to begin

psychotherapy will always be made by the person. Burnout can be reduced using three different techniques:

1- **Cognitive strategies:** These are intended at reassessing and rebuilding an individual's perception and understanding of stressful or troublesome events so that they may better deal with them. Because individuals view situations subjectively and individually, and thus in a biased way, this sort of method is beneficial. Cognitive approaches are used to discover and correct flaws in reality perspective in order to impact the emotions and behaviors that result.
2- **Physiological deactivation mechanisms:** This sort of treatment teaches the user ways to manage heightened psychological activation and anxiety generated by stressful stimuli through relaxing.
3- **Education in healthy living habits:** Physical activity, a well-balanced diet, and adequate sleep might assist to alleviate burnout symptoms.

2.8.5 Individually Directed, Job Interventions:

Workers begin and select these interventions in a similar way, but they are aimed at improving the working environment in this situation.

1- **Time management:** employees on the verge of burnout sometimes believe that they don't have enough time to complete all of their obligations or that they work overtime with little time for personal usage or relaxation. Self-management of time is properly managing one's time by making effective use of available time, arranging duties effectively and assigning them as needed, as well as setting aside time each day for personal hobbies and pleasure (Le Blanc, 2008; Schaufeli, 2006). Although each employee promotes this intervention, organizations such as those mentioned above can or should give training and coaching to their employees to help them manage their time efficiently (Ravari, 2020).
2- **Job constructing:** unlike job enrichment (explained above), which is handled and planned by the organization, work engagement is an individual bottom-up intervention, launched by the employees themselves, that consists of activity adjusting their job (as long as the job objective is met) by rearranging the way they handle tasks and negotiating the job content,

allowing employees to adjust their jobs to their personal knowledge, skills, and abilities, as well as their preferred work environment. In other words, work crafting does not change the progress to be made; rather, it modifies it so that it may be experienced in a more meaningful way. Table 7 summarizes the four sorts of changes that may be made (Bakker, 2018).

Table 7. Adjustments made to a job through job crafting

Increased Structural Resources for Employment	Making every effort to develop. Professional abilities and the ability to learn new things. Occurrences on the job.
Reduce Job Demands	Coordinating work in this manner that it does not have a large impact. Stress is less intense psychologically and emotionally when it is avoided. Situations those are difficult to deal with. Customers and coworkers, as well as attempting to avoid making things tough. Workplace decisions.
Increasing Social Interaction Employment Resources	If required, seeking assistance. As well as job-related feedback from the supervisor and coworkers.
Increased Demand for Workplace Challenges	When you're working on a pleasant project. When anything comes up, volunteer to work on it right away if there isn't much else to do. To do so, offer assistance to a coworker and request that the supervisor give you extra responsibilities.

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Bunourt: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

2.9 Burnout in Healthcare:

Burnout is a workplace hazard in healthcare that has negative consequences for the organization, clients, and healthcare professionals. Burnout syndrome has become a hot topic among medical professionals in recent years. Nearly two years after the start of the world's largest epidemic and one year after the first anti-COVID vaccination became available, the research suggests that healthcare personnel throughout the world are becoming more burnt out (Trumella, 2020; Dixon, 2022; Sullivan, 2021). Before the COVID-19 epidemic, records revealed that over 400 doctors committed suicide each year, but this number has now risen dramatically owing to melancholy and weariness (Stehman, 2019).

Period leading up to the COVID-19 global epidemic, the prevalence of burnout in health professionals varied from 20% to 50% (Goehring, 2005; Pederson, 2013; Busis, 2017), with several research findings of hospital-based nurses and doctors reporting rates of drastic burnout in the range of 20-40% (Rotenstein, 2018), including meta-analyses of nurses in oncology (17 studies of 9959RNs with severe burnout at 30%) (Canada-De Lafuente, 2018) and emergency medicine

Prior to the COVID-19 pandemic, the prevalence of burnout in healthcare workers ranged from <20% to >50% (Goehring, 2005; Pederson, 2013; Busis, 2017) with many studies of hospital-based nurses and physicians reporting rate of severe burnout in the of 20-40% (Rotenstein, 2018) including meta-analyses of nurses in oncology (17 studies of 9959RNs with severe burnout at 30%) (Canada-De Lafuente, 2018) emergency medicine (13 research of 1,566 RNs with serious burnout at 31 percent) Gomez-Vrquiza, 2017), family medicine (8 studies of 1,110 RNs with severe burnout at 28 percent), and physicians in emergency medicine (17 studies of 1,943 MDs with severe burnout at 40 percent), (Monsalve-Reyes, 2018; Zhang, 2020).

Burnout rates in North American nurses were similar to those in Europe, Latin America, and Central Asia, according to a worldwide meta-analysis of nurses (113 studies including 45,539 RNs), with the highest rates in Southeast Asia and the lowest in Africa and the Middle East. Intensive/critical care, emergency departments, and pediatric nursing had the highest rates among specialties (Woo, 2020). Younger professionals and trainees are at an increased risk of burnout, according to a comprehensive evaluation of 41 studies of surgeons and a study of 473 general hospital

nurses and nursing students. This was supported by a 2018 Canadian Medical Association study, which indicated that residents were 48 percent more likely than practicing doctors (Pulcrano,2016; Garrosa, 2008; Canadian medical association, 2018).

Longer work hours, less autonomy and flexibility, or a "survival" bias introduced because people with higher burnout leave the profession have been cited as possible causes (Pulcrano, 2016).

Burnout has reached critical levels in the COVID-19 epidemic, posing a challenge to sustaining a functional healthcare workforce. Burnout and other stress markers are expected to continue even after the pandemic has passed. This epidemic has created worldwide health and safety concerns and necessitated a healthcare system reform. Given the circumstances, persistent physical weariness and burnout symptoms have grown more prominent. Due to a larger workload and extended exposure to the risk of the Corona virus, medical workers (e.g., doctors and nurses) from specialty areas (critical care, critical care, communicable diseases, and pneumology) are even more vulnerable.

Approximately 80% of physicians were rated as having a high risk of burnout in a British survey conducted in 2019. (Sykes, 2018). According to research, physicians have a two-fold increased incidence of suicide ideation when compared to the overall population in the United States (WebMD, 2018). A recent research indicates that two months following the pandemic breakout in Romania, Romanian medical residents had an average burnout rate of 76%. (Dimitriu, 2020). According to a more recent research analysis, nurses had the highest percentage of burnout during the COVID1-9 pandemic compared to the pre-pandemic period (Sullivan, 2021).

Furthermore, nurses showed a greater level of emotional weariness in an empirical investigation comparing different medical professional groups (i.e., nursing, physician, physical therapists, and support workers represented by administrators, security, janitor, and carriers) (Dixon, 2022). During the first wave of the COVID-19 epidemic, emotional tiredness was the most often reported burnout characteristic among nurses, according to another study (Bruyneel, 2021). Other studies between nurses and doctors confirmed that nurses are more likely to report burnout than physicians (Shiu, 2021). Frontline healthcare personnel who diagnose, treat, and care

for COVID-19 patients reported more extreme anxiety, depression, and stress symptoms than those who were not on the frontline (Trumello, 2020).

Burnout is linked to depression and anxiety, which can exacerbate or worsen the problem (Koutsimani, 2-19). Based on these theoretical foundations, and especially in light of the current situation, we believe it is critical to analyze the psychological condition of hospital employees working in various wards during COVID-19. This is one of the few, if not the only, investigations of this type of health care worker in Afghanistan (As I had interview with most of medical physicians, nurses and medical supportive staff, most of them do not know or do not have information about burnout). Our major goal is to look into the degrees of burnout among medical staff who worked or had worked in various wards during COVID-19.

We aimed to see how different medical categories compared in terms of burnout. In addition, we expected to uncover a high prevalence of burnout among healthcare employees and compare them to one another.

SUSTAINABLE SERVICE QUALITY AND PATIENT SATSIFACTION

2.10 Service Quality Definition:

Quality is the degree in which a set of essential characteristic meets the requirements. In this definition degree is a level to which a service or product satisfies and it depends to the level of satisfaction, a product or services maybe called as good or bad quality product parasuraman et al., (1985).

According to Lehtinen and Lehtinen (1982), service quality should be evaluated and judged based on two factors: the service delivery process and the service delivery results. Service quality, according to Parasuraman et al. (1985), entails providing outstanding service in order to exceed the client's expectations. Customer happiness increases when you provide excellent service (Tabash et al. 2019).

The SERVQUAL approach is based on Gap 5 (Perception Gap), which is the discrepancy between internal views of services and customer expectations (Zeithaml et al., 1990). As a result, service quality encompasses everything that occurs during the process of customers utilizing and experiencing the business's service; it offers

advantages and meets customers' expectations. Because each consumer perceives and has unique demands, their perceptions of service quality are also unique.

Quality of service is defined by the International Organization for Standardization (ISO 8402) as "the sum of a service's features and characteristics that bear on its capacity to meet the stated and implicit needs of patients." Service quality, according to Bitner and Hubbert (1994), is the consumer's overall judgment of the organization's and its services' relative inferiority or superiority.

2.11 Healthcare Quality Service:

Health care is a process whose quality may be measured by how well it is produced and how well it is delivered (Brent and James, 1989). The techniques used to supply health care are referred to as "quality of production." The term "quality of output" refers to a person's assessment or judgment of a collection of features of a health service's outcome. It's a relative term that's evaluated by comparing it to other similar objects or occurrences. As a result, quality is a subjective judgment based on one's own set of values.

Structure, method, and outcome are three fundamental underlying characteristics of care, according to Donabedian (1980). The physical environment, infrastructure, resources, and facilities in a healthcare institution are all considered to be of high quality. The operational activities and exchanges in providing medical services to patients are referred to as process quality. The end result of a procedure, such as the efficacy of medical services in curing illness, is referred to as the quality of the outcome. As a result, structure can be inferred as a platform for service delivery via procedures that lead to desired outputs. According to Donabedian (1982) health care service quality as “Apply of medical science and technology in a way that maximizes its benefit to health without increasing the risk correspondingly” Leebow et al. (2003) highlighted the assessment of progressive and prevention measure: “do the right thing and make continuous improvement, get the best possible clinical result, satisfy all customers, keep talented employees and keep well financial performance.” The mentioned definitions emphasize that health care service quality delivers to satisfy customer expectations and patient needs, also to improve health care by professional and skilled providers.

2.12 Hospital Service Quality:

In a competitive healthcare market, it's crucial to know your customers. Patient mortality can be reduced through changes in the healthcare system. To increase the quality of hospital services, it is vital to address the demands of patients in a safe and healthy environment. Hospital service quality is a non-tangible asset (Nguyen & Nguyen, 2020). Simultaneously, the hospital's service quality will have an impact on the institution's reputation (Kalaja et al., 2016). SERVQUAL is still widely used to evaluate service quality, particularly in the medical industry (Ramsaran-Fewdar, 2005). Customer happiness rises in tandem with increasing service quality.

Hospital service quality, according to Anderson & Zweling (1996), is divided into two categories: technical and functional. Technical quality refers to the type of service provided, whereas functional quality refers to the manner in which it is provided (Gronroos, 2001) Technical quality refers to the service product's quality, whereas functional quality refers to the way the service is offered. Technical quality refers to the core service, which is the treatment for which a patient visits a healthcare provider, and its indicators are mainly quantitative in nature, such as length of stay, infection rate, number of diagnostic tests performed, rate of effective treatment outcome, and so on. the measurements.

2.13 Service Quality Dimensions:

The most prominent five fundamental aspects of service quality, such as tangibility, reliability, assurance, empathy, and responsiveness, were established by Parasuraman et al. (1988). The infrastructure and physical facilities of a service provider are referred to as tangibility. The term "reliability" refers to the timely and precise delivery of services as promised. The knowledge and experience of individuals participating in service delivery is referred to as assurance. Empathy refers to a company's caring and personalized attention to its clients. Employers' responsiveness refers to their desire to listen to clients and assist them in solving problems.

Many scholars have used these five criteria to assess the level of service quality in hospitals, including Anderson and Zwelling (1996), Wong (2002), Sohail (2003), Doran and Smith (2004), John et al. (2011), Singh (2013). Tangibility, reliability, assurance, responsiveness, empathy, accessibility, and affordability are seven

underlying elements of hospital service quality established by Mahapatra (2013). The efficacy of these gap scores to predict patients' preference for a private or public hospital for medical services was investigated in this study. Respect and caring, effectiveness and consistency, appropriateness, information, efficiency, effectiveness and food, initial impression, and staff diversity are the eight prominent elements of hospital service quality identified by Sower et al. (2001).

Resource availability, quality of care, condition of clinic/ward, condition of facility, quality of food, attitude of doctors/nurses, attitude of non-medical staff, and waiting time for service are among the eight dimensions identified by Mejabi and Olujide (2008) as determining hospital service quality. Doctors, nurses, pharmaceuticals, diagnostic facilities, and emergency services are all examples of' resource availability.' The term 'quality of care' refers to how well an issue is explained, how well it is solved, how clear a prescription is, and how quickly it is implemented. Cleanliness, adequacy of illumination, quality of ventilation, adequacy of water supply, and aesthetics are all factors to consider while evaluating the condition of a clinic or ward. The term 'condition of facility' relates to the clarity of directions and signage, as well as the ease of movement, cleanliness of the hospital environment, and aesthetics. Taste, adequacy, and diversity of meals given are all examples of 'food quality.' The term 'doctor/nurse attitude' refers to the empathy that doctors and nurses have for their patients.

The length of time it takes to see a doctor, collect medications, make payments, and receive the results/reports of diagnostic tests such as X-rays, ultrasounds, and laboratory testing is referred to as 'waiting time' for service. Infrastructure, staff quality, clinical care process, administrative processes, safety indicators, social responsibility, and overall experience of medical care received are the seven factors that affect hospital service quality, according to Duggirala et al. (2008). Padma et al. (2009) established eight criteria for determining the quality of hospital services. Infrastructure, personnel quality, clinical treatment processes, administrative procedures, safety indicators, corporate image, social responsibility, and the hospital's credibility are the elements to consider. The concrete features of service delivery, such as facility look, signage, and resource availability, are referred to as 'infrastructure.'

It's also known as the service cape or the man-made physical environment. The quality of all individuals participating in the service delivery process is referred to as

"personnel quality." It includes all contacts between service workers and patients, such as key occurrences, moments of truth, and service recovery, among other things. The core service, primary service, or technical quality of the hospital service is referred to as the 'process of clinical care.' It describes the hospital's breadth and depth of services. The admission, stay, and discharge of patients are all considered "administrative procedures." This metric assesses how easy it is to get appointments, ambulance services, and admission and discharge procedures, among other things. 'Safety signs' include things like hygienic care and procedures, allergic reaction response, and the presence of safety or security measures.

A hospital's social duty includes things like providing equitable medical treatment, providing services at a cheap cost to low-income patients, and adhering to ethical values. 'Hospital trustworthiness' assesses a patient's sense of well-being. It assesses factors such as the patient's level of trust in doctors, the billing system's correctness and reliability, the provision of promised services, and the patient's privacy and confidentiality.

Empathy, relationship, giving priority to patients' needs, professionalism of personnel, food, and physical environment are six underlying dimensions of hospital service quality established by Arasli et al. (2008).

2.14 Patient Satisfaction:

Many patient satisfaction surveys focus on hospital service quality, but others do not. Buyers of health services are getting increasingly demanding in a war-torn country such as Afghanistan. Hospitals can leverage patient happiness to help them compete and grow their market share. Satisfaction can increase a patient's quality of life, which can lead to improved mental health and faster recuperation. Customer satisfaction is linked to the quality of medical services and is one of the intended results of healthcare.

Service quality, according to Shafii et al. (2016), has a significant impact on customer satisfaction. Customer satisfaction and service quality are inextricably linked, with service quality determining customer satisfaction first. In other words, while service quality is a predictor of satisfaction, it should not be measured without first determining customer satisfaction.

Customer satisfaction, according to Lafferty (2001), is the process of customers commenting on and evaluating a product or service to determine whether it meets their needs and expectations. This viewpoint is in line with that of Kotler et al. (1996), who claimed that satisfaction is a person's pleasant experience generated from comparing the product's results to the person's expectations. This comparison will result in customer satisfaction, and there will be three scenarios:

1- The customer's expectation is confirmed if the service's performance meets the customer's expectations exactly.
2- Angry if consumer expectations aren't met.
3- Satisfied if they felt and experienced more than they expected and expected before purchasing the service.

2.15 Satisfaction of patients and competitive advantages:

Customer satisfaction, according to Seth (1991), can help a company gain a competitive advantage in six ways.

a) Higher order volume owing to recurring purchases results in economies of scale.
b) Higher prices demanded as a result of difference achieved via product quality, service excellence, brand recognition, and a customer-centric culture.
c) In a crisis, satisfied consumers defend a company by helping it survive and acting as the best source of insulation.
d) Product diversification expansion through one-stop-shopping, which happy clients choose because of the convenience and lower cost.
e) New market growth through word-of-mouth distribution by satisfied customers, which reduces the economic, reliability, social, and safety risks associated with product or service purchases.
f) Open communication and exchange of product/service usage experiences by delighted customers can lead to new product improvements. As a result, good management of service quality has become critical for hospitals to achieve patient satisfaction. Hospitals should focus on continual measurement and improvement in service quality, which results in higher levels of patient

satisfaction, because it is not only vital to obtain competitive advantages, but also to sustain them for a longer length of time to thrive in an industry.

2.16 Healthcare Quality Service and Patient Satisfaction during COVID-19 Pandemic:

Quality of healthcare service and patient satisfaction has been affected by the current coronavirus disease (COVID-19). The impact of the COVID-19 pandemic on health-care quality is obvious. Numerous examples in the scientific literature point to issues with medical service availability, as well as patients' fears of becoming infected during a medical visit. When compared to the time leading up to the event, the frequency of receiving emergency assistance has dramatically increased (Sutherland, 2020). Due to a lack of access to GPs, emergency rooms were initially overburdened (Ojetti, 2020).

The frequency of medical visits and appointments dropped dramatically as the pandemic progressed and messages urging people to stay at home and preserve social distance were posted. This can be explained by social dread of infection as well as a sense of duty for those who needed assistance more urgently (Butt, 2020; Jeffery, 2021). Patients expressed worry of not receiving medical aid due to the lower number of engaged healthcare providers, which contributed to the declining trend. During that time, there was also a reduction in the number of traffic accidents (Nunez, 2020).

The statistics in relation to people seeking help in a life-threatening situation, but not as a result of the SARS-CoV-2 illness, appears worrisome. This is especially true in the case of persons who are experiencing stroke symptoms, where every minute counts in terms of a positive medical outcome. Despite the emergence of apparent symptoms, these people did not seek prompt medical attention during the COVID-19 epidemic. As a result of the decline in seeking emergency care, occurrences of mental problems and alcohol misuse are on the rise (Rennert-May, 2021).

The COVID-19 pandemic has highlighted worldwide health-care issues, particularly in Afghanistan, and exposed the system's flaws in terms of patient access to care. The rising number of cases of severe acute respiratory syndrome (SARS-CoV-2) infections has overburdened healthcare systems with insufficient human resources, putting healthcare services in health and life-threatening situations at risk.

The factors stated above have an impact on the quality of healthcare services provided during a pandemic.

Since COVID-19 pandemic begun, several studies have done and reported many aspects related to COVID-19. A few of them have measured the general quality of healthcare provided to the patients. For example, Int. J. Environ (2022) reported high levels of patients' satisfaction among the patients of hospital emergency departments (EDs) and emergency medical services (EMSs) who personally received emergency care since the start of pandemic and the research was conducted with the corporation of two Universities (Lodz and Siedlce) in Poland . Deriba et al., (2020) reported very low levels of satisfaction among chronic patients during COVID-19 pandemic in North Shoa, Ethopia. Other two studies investigated patients' satisfaction with virtual clinics in Riyadh, Saudi Arabia (Alharabi et al., 2021) and telemedicine visits in Los Angeles, USA (Orrange et al., 2021) during COVID-19 Pandemic; both studies reported high level of patient satisfaction, there might be rare study or even no in this study we will do research for patients' satisfaction to know levels of healthcare quality service on COVID-19, patients who received emergency care in COVID-19 wards in public and private hospitals in Afghanistan during pandemic. As there might be rare or even no such a study in the past.

As previously mentioned the general quality of healthcare can be influenced by different factors, however the key determinants of patient satisfaction in non-COVID-19 period might be different as compared to the situation in the emergency of a grave pandemic. As people's understanding and response to COVID-19 varied, the health care provider across the global also struggled to make sense of their patient's expectation from the existing healthcare services. Symptoms of COVID-19 disease and treatment outcomes along with patient engagement in the treatment process become important aspects of patient satisfaction during COVID-19 pandemic. The author will employ Arasli et al. (2008) categories in this study, which identified six dimensions of hospital service quality, including empathy, relationship, giving inpatients' needs priority, staff professionalism, food, and physical environment.

1. **Empathy:** assesses factors such as doctors' attempts to make patients comfortable, doctors and nurses spending additional time with patients, providing patients' options when deciding on a treatment plan, and patients' participation in medical treatment planning.

2. **Giving priority to inpatients need:** assesses factors such as doctors' pleasant demeanor, respect for patients, level of trust in doctors, significance placed on patients' personal issues, and doctors' capacity to execute tests and operations.
3. **Relationship:** assess variables such as nurses' kindness and gentleness, obtaining consent before performing any diagnostic test, maintaining patients' privacy, disseminating information about ward rules and regulations, treating patients with respect and dignity, and explaining tests and procedures.
4. **Professionalism of Staff:** assesses factors such as doctors' candor and civility, the thoroughness with which they do tests, the clarity with which they provide medical advice to patients, and the patient's understanding of his or her health situation.
5. **Food:** assesses the quantity of food served, the presentation of the meal, the temperature at which the meal is presented, the variety of options available, and the cleanliness of the plates after the meal has been consumed.
6. **Physical environment:** assesses comfort, cleanliness, ventilation, noise, and ward decoration.

2.17 Public and Private Hospitals comparison:

According to the research done by Naveed et al. (2021) in Lahore province of Pakistan on comparing burnout between public and private hospitals' physiotherapists, in private hospital personal accomplishment was the factor that was mostly found In the physiotherapists but in contrast to physiotherapists working in public hospital, emotional exhaustion was mostly found also Majority (43.8%) had symptoms of burnout at borderline in public and only 2.9% had developed while 53.2% from private hospital had developed burnout syndrome and 10.6% were with severe level of burnout. In other study almost half of nurses in public hospitals experienced high levels of emotional exhaustion (948.4%), almost half of nurses experienced high degree of depersonalization (49.5%) and most nurses experienced a high level of personal accomplishment (57.9%) but in private hospitals almost half of the nurses suffer from high emotional exhaustion (40.0%) high degree of depersonalization (40.0) also a high level of personal accomplishment nurses (36.8%) (Daeng et al. (2018 p437)

For service quality and patient satisfaction there are many studies with different similar results. According to the research has done by M.U.Jan et al. (2020 p6) in Peshawar of Pakistan the patient satisfaction was higher in private hospital than public hospitals, the patients were satisfied with all aspects of the service quality except finance also Specifically, patients in private hospitals were more significantly satisfied in terms of general satisfaction, but patients were significantly more satisfied regarding the technical data, accessibility and finance section in public hospitals. Another study in Saudi Arabia on comparing public and private hospitals' service quality showed that private hospitals got higher grades than public hospitals for all service quality dimensions (Five dimensions) so private hospitals was higher quality service provider than public hospitals, especially in term of assurance therefore, inpatients at private hospitals were more satisfied generally than inpatients' at public hospitals (Arwa et al. 2020). In this study the author compare levels of burnout among healthcare personnel (Doctors, nurses and supportive staff) and perceived service quality and patient satisfaction between private and public hospitals.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Research Objective:

The goal of this research is to investigate the level of burnout in staff, perceived service quality of patients, and patient satisfaction in healthcare institutions during crisis such as COVID-19 pandemic. The purpose is to highlight the link between the level of burnout in staff and patients' perceived service quality. The findings are expected to help in developing suggestions about how to have sustainable quality service and customer satisfaction at hospitals by decreasing the level of burnout in staff. It will find outs that what can be done to prevent them in the future in order to have sustainable quality services and prevent such health crisis in the future and for the health institutions to survive and keep long-term profitability.

3.2 Research Model and Variables:

In this study, the level of burnout of public and private hospitals' staff was measured in three dimensions and difference in degree of level of burnout was compared.

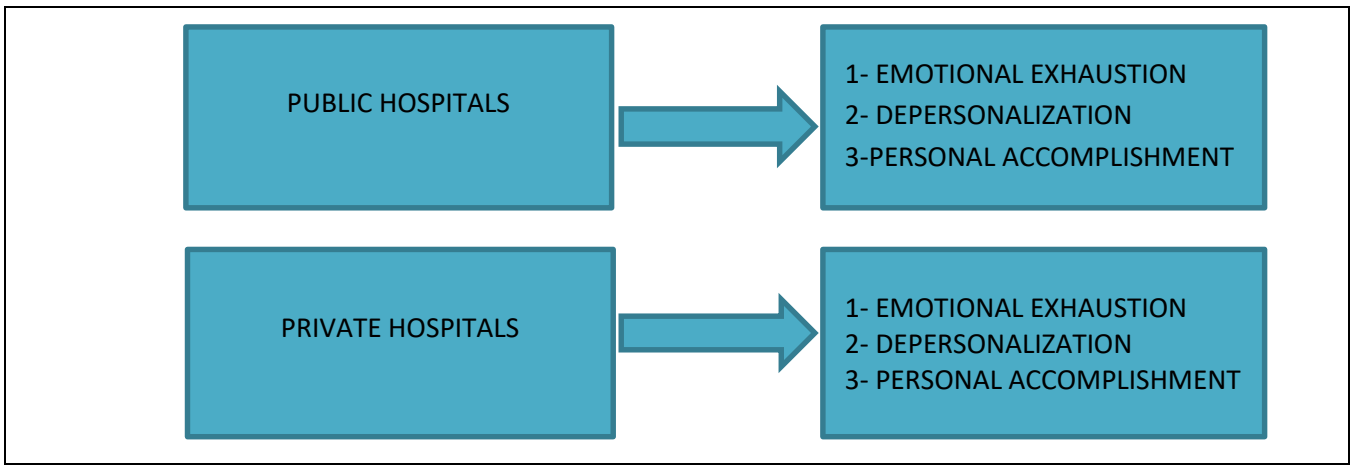

Figure 5. Level of Burnout Model, Burnout Dimensions and Hospital Types
Source: Ramz (2022).

Table 8. Burnout dimensions operational definitions

Dimension	Definition
Emotional Exhaustion	It appears as sentiments and sensations of exhaustion as a result of work-related psychological exertion. Weariness, exhaustion, fatigue, and weakness are additional characteristics used to depict it. Individuals who experience these feelings have a hard time adjusting to their new work environment since they lack the emotional energy to complete duties.
Cynicism or Depersonalization	Detachment, apathy, and unconcern about the task at hand and/or the people who receive it are all symptoms of this type of burnout. It manifests itself through unpleasant or improper actions and attitudes, impatience, a lack of optimism, and social disengagement, most commonly directed against customers, patient, and service users.
Reduced Personal Achievement	It is expressed in a negative professional self-assessment and questions about one's capacity to execute the work successfully, as well as a stronger proclivity to adversely judge results. This also corresponds to poor quality of work and capacities, as well as demoralization and stress management.

Source: Edú-Valsania, S.; Laguía, A.;Moriano, J.A. Int. J.Environ. (2022). Bunourt: A Review of Theory and Measurement, International Journal of Environmental Research and Public Health, Spain, 2-27.

For second study the dependent variable was patient satisfaction with the quality of services provided.

The independent variables for this research were perception of the service quality which explored patient perceptions towards service delivery in terms of their empathy, giving priority to inpatients' needs, relationships, professionalism of staff, food and physical environment. The model is in Figure. 6

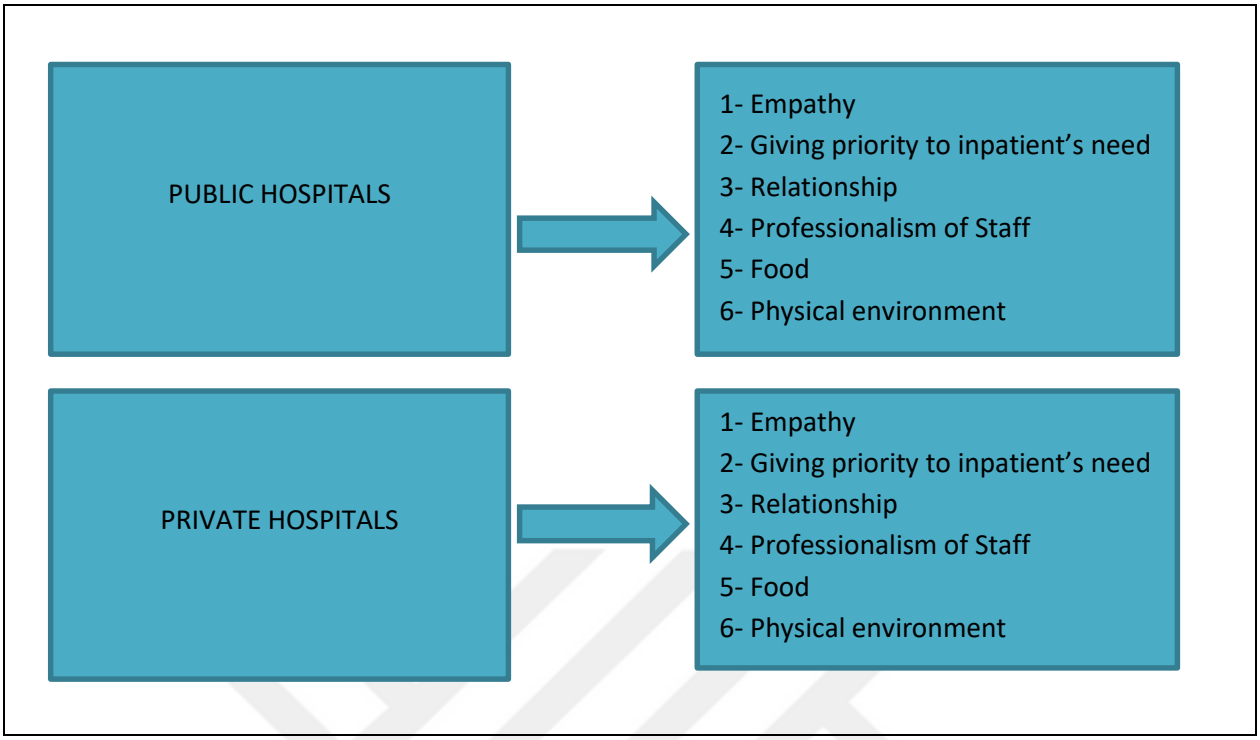

Figure 6. The Perceived Service Quality Dimensions Model, and Hospital Types

Source: Ramz (2022).

Table 9. Hospital Service quality dimensions and their operational definitions

Variables	**Operational Definitions**
Empathy	Assesses factors such as doctors' attempts to make patients comfortable, doctors and nurses spending additional time with patients, providing patients' options when deciding on a treatment plan, and patients' participation in medical treatment planning.
Giving Priority to Inpatient's Need	Assesses factors such as doctors' pleasant demeanor, respect for patients, level of trust in doctors, significance placed on patients' personal issues, and doctors' capacity to execute tests and operations.
Relationship	Assess variables such as nurses' kindness and gentleness, obtaining consent before performing any diagnostic test, maintaining patients' privacy, disseminating information about ward rules and regulations, treating patients with respect and dignity, and explaining tests and procedures.
Professionalism of staff	Assesses factors such as doctors' candor and civility, the thoroughness with which they do tests, the clarity with which they provide medical advice to patients, and the patient's understanding of his or her health situation.

Food	Assesses the quantity of food served, the presentation of the meal, the temperature at which the meal is presented, the variety of options available, and the cleanliness of the plates after the meal has been consumed.
Physical Environment	Assesses comfort, cleanliness, ventilation, noise, and ward decoration.
Patient Satisfaction	Measures factors such as a patient's satisfaction with the healthcare service they are receiving, such as patient-centered, high-quality care.
Perceived Service Quality	The degree to which patients' opinions and expectations regarding healthcare services differ.

Source: Araslı Huseyin, (2008), Gearing service quality into public and private hospitals in small islands, Empirical evidence from Cyprus, *International Journal of Health Care Quality Assurance,* Cyprus, Turkey pp. 8-23.

3.3 Research Hypothesis:

The main objective of the first study is to investigate the level of burnout in staff in healthcare institution during healthcare crisis such as COVID-19 pandemic.

After review of literature, the author has formulated the following hypothesis:

H1- The burnout levels of doctors, nurses and supportive staffs are different.

H2: The burnout levels of personnel in private and public hospitals are different.

H3: The burnout levels of doctors in private and public hospitals are different.

H4: The burnout levels of nurses in private and public hospitals are different.

H5: The burnout levels of supportive staff in private and public hospitals are different.

The main objective of the second research is to examine perceived service quality of the patients, and patient satisfaction in healthcare institutions during healthcare crisis such as COVID_19 pandemic. After literature review the author formulated bellow hypothesis

H1: All six perceived service quality dimensions positively impact on hospital patients' satisfaction.

H2: Satisfaction levels of patients in public and private hospitals are different.

H3: All six dimensions of perceived service quality are different in public and private hospitals.

3.4 Sampling:

The goal of this research study is to measure the levels of burnout in staff, the sustainable quality service, and patients' satisfaction in healthcare institutions during healthcare crisis such as COVID-19 pandemic in Kabul, Afghanistan. There are two different types of surveys conducted in this research. The first survey contains 22 questions of three burnout dimensions such as emotional exhaustions (EE), depersonalization (DP) and personal accomplishment (PA), and targeted hospital professionals (doctors, nurses and supportive staff). 25 healthcare professional are chosen from each hospital randomly who are interested to participate in this survey and working in COVID-19 wards. At the same time the survey included 6 demographic questions and introduction part. In total six hospital including 3 public and 3 private and total of 120 health personnel were participated in this survey.

The second survey contains of 48 questions of which there are six service quality dimensions such as empathy, giving priority to inpatient's needs, relationships, professionalism of staff, food and physical environment with 2 questions for overall patient satisfaction and targeted COVID-19 patients who are getting treatment and who have already treated at the hospital in COVID-19 wards during COVID-19 pandemic. The survey also included demographic part with 6 questions and introduction part. 20 patients were chosen randomly from each hospital (Total 6 hospitals). Both surveys are done in six hospitals (3 public and 3 private). The results of the surveys are compared between public and private hospitals. In both surveys, the questionnaires were linear scale.

3.5 Data Collection Method:

Primary and secondary data were collected in this study:

3.5.1 Primary Data:

Primary data were collected by the author directly from main sources through surveys, interviews, general discussions, personal visits, via email, and Whatsapp call and messenger. The best and basic tool for gathering primary data was survey with maximum response rate.

3.5.2 Quantitative Research Method:

Quantitative research method emphasize objective measurement and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaire, and surveys, or by manipulating pre-existing statistical data using computational techniques.

3.5.3 Research Scales:

Two research scales were used and they are below:

A. Maslach Burnout Inventory-Human Services Survey for medical personnel (MBI-HSS MP) is a 22- items survey that covers 3 areas: Emotional Exhaustion (EE), Depersonalization (DP), and low sense of Personal Accomplishment (PA).

For level of burnout in staff the author used an adapted MBI-HSS developed by BojanaMatejic et al. (2015). The mentioned scale is a widely used instrument for measuring the level of burnout.

Table 10. Adapted MBI-HSS questionnaire with burnout dimensions.

Emotional Exhaustion, (9 items):
I felt emotionally drained from work during covid-19.
I felt fatigued when getting up in the morning.
I felt used up at the end of the workday.
I felt like at the end of the rope.
I felt frustrated by the job.
I felt working too hard by the job.
Working with people during COVID-19 puts too much stress.
Working with COVID-19 patients is a strain.
I felt burned out from work during COVID-19.
Personal Accomplishment, (8 items):
I deal with emotional problems calmly.
I felt very energetic working during COVID-19.
I have accomplished worthwhile things in the job during COVID-19.

I felt positively influenced peoples' live through my work. I felt exhilarated after working with COVID-19 patients. I can easily understand patients' feelings. I could easily create a relaxed atmosphere at work during COVID-19. I deal effectively and efficiently with patients' problem.
Depersonalization, (5 items):
I feel treat some patients as if they were impersonal "object". I've become more callous toward people since COVID-19 begun. I worry that this job is hardening me emotionally. I don't really care what happens to the patients. I feel patients blame me for some of their problems.

Source: BojanaMatejiT, (2015). Psychometric Properties of Serbian version of Maslach Burnout Inventory- Human Service Survey: A validation Study among Anesthesiologists from Belgrade Teaching Hospitals. *The Scientific World Journal Serbia.* P5

B. SERVQUAL Scale is a multi-dimension research instrument designed to capture consumer expectation and perception of a service along five dimensions that are believed to represent service quality.

For the second study the author used a developed SERVQUAL scale used by Arasli et al. (2005) which identified six dimensions of hospital service quality and patients' satisfaction such as empathy, relationship, giving priority to inpatients' needs, professionalism of the staff, food, and physical environment also two overall patient satisfaction questions used by Adhikari et al. (2021).

Table 11. Questionnaire of Perceived Service quality and Patient satisfaction six dimensions

Empathy, (10 items):

The doctors did their best to make me emotionally comfortable.
The doctors worked hard to prevent me from warring.
The doctors spent extra time with me to discuss my fear and concerns.
The doctors took care of me as soon as I arrived on COVID-19 Ward.
Whenever I asked for help, nurses did not pay attention.
The nurses talked to me in order to get to know me better in their spare time.
I was involved in the planning of medical treatment.
The doctors made me feel comfortable even when they were not really successful in treating me.
I was presented with choices when doctors were deciding about my medical treatment.
The doctors discussed medical issues with me after discharge.

Giving Priority to Inpatient's Need, (9 items):

The doctors were courteous while speaking to me and my family.
The nurses were polite while speaking with me and my family.
In the hospital, I was taken care as an individual not like a customer.
My personal concerns were of utmost important for the hospital.
In the hospital I was treated with respect.
I had complete trust in my doctor.
The doctors were capable of preforming tests and procedures on me.
I had enough confidence in my doctor do discuss my very personal matters.
The doctors spent enough time examining me.

Relationship, (9 items):

My doctor was interested in not only my illness but also me as a person.
The nurses spent enough time with me to discuss my concern about my condition.
I was treated with dignity and had adequate privacy during my treatment.
The ward rules and regulation were explained to me.
The doctors asked my permission before preforming any test on me.
The doctors explained frankly to me the reasons for tests and procedures.
The use of each procedure and test was explained to me before they were done.
The nurses asked my permission before preforming any test to me.
The nurses were kind, gentle and sympathetic at all time.

Professionalism of Staff, (5 items):

The doctor talked to me frankly and politely.
The doctor carried out my tests completely and carefully.
I had clear understanding of my condition during my stay at the hospital.
The doctors spent extra effort to make sure that I understand my condition and its treatment.
The doctors gave me medical advice in simple way that I could understand.

Food, 6 items:

The meals were well presented.
There was a choice of food in the menu.
The meals were still hot when they were served.
The food which had asked for was given to me.
I was asked about the size of portion that I would like to have.
The plates were cleared straight away after each meal.

Physical Environment, (9items):

The ward was clean at all times.
The bathrooms and toilets were always clean and pleasant to use
There was adequate number of bathroom and toilet in the ward.
The beds, pillows and mattresses were clean and comfortable enough.
Inside the wards, noises were kept at minimum level during the night time.
The ward was well furnished and decorated.
The screens were down around my bed, while medical procedures and examinations were carried out.
Outside noises were kept to a minimum.
The ward was well ventilated.

Overall Patient satisfaction, (2 items):

The medical care I received was just perfect.
I am dissatisfied with some things about medical care I received.

Source: Arasli Huseyin, (2008), Gearing service quality into public and private hospitals in small islands, Empirical evidence from Cyprus, *International Journal of Health Care Quality Assurance*, Cyprus, Turkey pp. 8-23.
Source: (for overall patient satisfaction) Adhikari et al. (2021. P5)

3.5.4 Data Collection Procedure:

The Google form surveys were created and the questionnaires were sent to the participants via email, instant messaging Apps and social media websites (WhatsApp and Facebook Messenger …etc.). The forms are translated from English into the participants' native language (Dari) and they were given to the participants in hard copies as a guide to complete it. Overall, the data was collected from 150 healthcare personnel and 120 patients from three Public and three private hospitals in Kabul. The surveys were completed by the respondents from April 14th to May 17th 2022. To be clear and conduct valid surveys, the questionnaires has an introduction part explaining purpose of the research, the types of participants and emphasized to fill out the forms as honestly and accurate as possible.

3.5.5 Secondary Data:

It is a type of data that has already been collected in the past.

The author had already collected secondary data through sources which were ready made available for researches to use for their own study. The author collected secondary data from some existence up to date sources such as scholarly journals, researches by different health institutions and other library articles through Google, validated sites, emails and messengers.

CHAPTER FOUR
FINDING AND ANALYSIS

4.1 Finding and Analysis:

In this study the author used IBM SPSS version 26 started statistical analysis with analyzing reliability of scales using Cronbach Alpha reliability test, Factor analysis test was run for validity of scales. ANOVA analysis applied to compare group means for research variables or means of the scales differ with respect to demographic variables. To compare mean values for research variables used independent t-test also correlation and regression analysis were conducted by author to detect the relationship between variables.

Level of burnout in staff

4.1.1 Descriptive Analysis:

In this section, the frequency distribution and percentage of the initial data are displayed in tables:

4.1.2 Demographic characteristics of the sample group (Descriptive Statistics):

In this section, the author examined the demographic characteristics of the group based on Gender, Marital Status, Educational Levels, and work sector.

Table 12. Gender frequency distribution and percentage

Gender of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	39	25.5	25.5	25.5
	Male	113	73.9	73.9	99.3
	Other	1	.7	.7	100.0
	Total	153	100.0	100.0	

Source: (Ramz, 2022)

Interpretation:

According to data collected in table number (11): 73.9% of the participants are male and 25.5% are female also 0.7% is other.

Table 13. Profession frequency distribution and percentage

Profession of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Doctor	72	47.1	47.1	47.1
	Nurse	49	32.0	32.0	79.1
	Supportive Staff	32	20.9	20.9	100.0
	Total	153	100.0	100.0	

Source: (Ramz, 2022)

Interpretation

According to Table Number (12) 47.1% of participants are doctors 32% of participants are nurses and 20.9% are supportive staff.

Table 14. Marital Status frequency distribution and percentage

Marital Status of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	108	70.6	70.6	70.6
	Other	1	.7	.7	71.2
	Single	44	28.8	28.8	100.0
	Total	153	100.0	100.0	

Source: (Ramz, 2022)

Interpretation

According to Table Number (13) 70.6% of participants are Married 28.8% of participants are single and 0.7% are other.

Table 15. Work Sector frequency distribution and percentage

Work Sector					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private	75	49.0	49.0	49.0
	Public	78	51.0	51.0	100.0
	Total	153	100.0	100.0	

Source: (Ramz, 2022)

Interpretation

According to data collected in table number (15): 49% of participants are healthcare personnel from private hospitals and 51% of participants are healthcare personnel from public hospitals.

4.2 Reliability Analysis:

A series of Cronbach Alpha Reliability Analysis were repeated until the highest reliability score was obtained by excluding some items. The final scale reliability was 0.732 (EE6-D5 AND D4 were excluded as can be seen in the reliability tables).

Note: items under PA were reverse coded before starting the analysis because all items in a scale should be in the same direction (positive or negative), as a rule.

Table 16. Reliability Analysis for Burnout Scale

Reliability Statistics	
Cronbach's Alpha	N of Items
,732	19

Source: (Ramz, 2022)

Table 17. Items Statistic of Reliability Analysis

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EE_1_1. I felt emotionally drained from work during COVID-19	47,92	67,980	,322	,717
EE_2_@2. I felt fatigued when getting up in the morning	47,95	67,997	,312	,718
EE_3_@3. I felt used up at the end of the workday	47,59	71,026	,230	,725
EE_4_@4. I felt like at the end of the rope	48,65	68,878	,291	,720
EE_5_@5. I felt frustrated by the job	49,03	68,270	,244	,727
EE_7_@7. Working with people during COVID-19 puts too much stress	47,37	69,983	,277	,721
EE_8_@8. Working with COVID19 patients is a strain	48,00	67,020	,402	,710
EE_9_@9. I felt burned out from work during COVID-19	48,06	66,970	,428	,708
PA_1_@1. I deal with emotional problems calmly	49,68	72,535	,192	,727
PA_2_@2. I felt very energetic working during COVID19	48,52	69,099	,306	,719
PA_3_@3.I have accomplished worthwhile things in the job during COVID	49,78	70,966	,286	,721
PA_4_@4. I felt positive influencing peoples live through my work	49,94	70,851	,362	,717
PA_5_@5. I felt exhilarated after working with COVID-19 Patients	49,62	72,436	,160	,730
PA_6_@6. I can easily understand patients feelings	49,82	70,664	,336	,718
PA_7_@7. I could easily create a relaxed atmosphere at work during COV	48,73	67,510	,390	,711
PA_8_@8. I deal effectively and efficiently with patients problem	49,73	70,847	,328	,718
D_1_@1. I feel treat some patients as if they were impersonal object	49,58	69,702	,291	,720
D_2_@2. Ive become more callous toward people since COVID1-9 begun	49,72	69,052	,343	,716
D_3_@3. I worry that this job is hardening me emotionally	49,09	69,501	,287	,720
D_4_@4. I don't really care what happens to the patients	49,84	71,207	,167	,732

Source: (Ramz 2022)

4.3 Explanatory Factor Analysis:

A series of EFA was conducted to check the validity of the Burnout Scale. Items with factor loadings below 0.60 were eliminated to obtain strong scale validity. As a result, PA1, PA5, PA7, EE3, EE5, EE7, EE4 AND EE8 were excluded. The final factor structure includes three dimensions which is similar to the work of Bojana Matejic et al. (2015) except PA2 was included under Emotional Exhaustion dimension. Further analysis was conducted through these three dimensions which represent emotional exhaustion, personal accomplishment and depersonalization.

As seen in the mean value of personal accomplishment which is 1.68 the health personnel do not feel energetic, relaxed, calm and effective during COVID-19 pandemic. Similarly, they are experiencing emotional exhaustion but depersonalization mean values are not very high.

Table 18. Explanatory Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,717
Bartlett's Test of Sphericity	Approx. Chi-Square	451,387
	df	55
	Sig.	,000

Source: (Ramz, 2022)

Table 19. Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,876	26,149	26,149	2,876	26,149	26,149	2,509	22,811	22,811
2	2,311	21,005	47,154	2,311	21,005	47,154	2,316	21,059	43,870
3	1,545	14,049	61,203	1,545	14,049	61,203	1,907	17,333	61,203
4	,802	7,293	68,497						
5	,771	7,007	75,503						
6	,599	5,449	80,952						
7	,534	4,851	85,803						
8	,454	4,125	89,929						
9	,412	3,746	93,674						
10	,361	3,280	96,955						
11	,335	3,045	100,000						
Extraction Method: Principal Component Analysis.									

Source: (Ramz, 2022)

Table 20. Rotated Component Matrix

Source: (Ramz, 2022)

Rotated Component Matrix			
	Component		
	1	2	3
PA_3_@3. I have accomplished worthwhile things in the job during COVID-19	,800		
PA_4_@4. I felt positive influencing peoples live through my work	,785		
PA_8_@8. I deal effectively and efficiently with patients problem	,779		
PA_6_@6. I can easily understand patients feelings	,720		
EE_2_@2. I felt fatigued when getting up in the morning		,835	
EE_9_@9. I felt burned out from work during COVID-19		,759	
PA_2_@2. I felt very energetic working during COVID-19		,723	
EE_1_1. I felt emotionally drained from work during COVID-19		,660	
D_1_@1. I feel treat some patients as if they were impersonal object			,823
D_2_@2. Ive become more callous toward people since COVID-19 begun			,761
D_3_@3. I worry that this job is hardening me emotionally			,720
Extraction Method: Principal Component Analysis.			
Rotation Method: Varimax with Kaiser Normalization. a			
a Rotation converged in 4 iterations.			

4.4 Independent T-Test Analysis:

When an independent t-test analysis was conducted to test H2, it is seen that the health personnel working in public and private hospitals are significantly different in terms of personal accomplishment dimensions. On the other hand no difference was observed for emotional exhaustion and depersonalization. As a result H2 was accepted partially.

Table 21. Group Statistics

Group Statistics					
	Your Work Sector	N	Mean	Std. Deviation	Std. Error Mean
PA_TOTAL	Public	77	1,8117	,59071	,06732
	Private	75	1,5600	,68012	,07853
EE_TOTAL	Public	77	3,3377	,83091	,09469
	Private	75	3,4533	,94591	,10922
D_TOTAL	Public	77	2,0866	,78807	,08981
	Private	75	2,0000	,90875	,10493

Source: (Ramz, 2022).

Table 22. Independent T- Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PA_TOTAL	Equal variances assumed	,408	,524	2,438	150	,016	,25169	,10325	,04768	,45569
	Equal variances not assumed			2,433	145,966	,016	,25169	,10344	,04726	,45612
EE_TOTAL	Equal variances assumed	2,121	,147	-,802	150	,424	-,11567	,14431	-,40081	,16947
	Equal variances not assumed			-,800	146,473	,425	-,11567	,14456	-,40136	,17001
D_TOTAL	Equal variances assumed	1,091	,298	,628	150	,531	,08658	,13786	-,18582	,35898
	Equal variances not assumed			,627	145,895	,532	,08658	,13812	-,18639	,35955

Source: (Ramz, 2022).

According to the results of independent t-test analysis, the burnout levels of doctors working at private and public hospitals are not different. On the other hand, both groups suffer from high levels of burnout

Table 23. Group Statistics

Group Statistics					
.	Your Work Sector	N	Mean	Std. Deviation	Std. Error Mean
PA_TOTAL	Public	39	1,9615	,72216	,11564
	Private	32	1,6641	,82210	,14533
EE_TOTAL	Public	39	3,1603	,87262	,13973
	Private	32	3,1797	,98422	,17399
D_TOTAL	Public	39	2,2735	,88149	,14115
	Private	32	2,1875	1,00157	,17705

Source: (Ramz, 2022).

Table 24. Independent T- Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PA_TOTAL	Equal variances assumed	,117	,734	1,623	69	,109	,29748	,18334	-,06828	,66323
	Equal variances not assumed			1,602	62,306	,114	,29748	,18572	-,07374	,66869
EE_TOTAL	Equal variances assumed	1,411	,239	-,088	69	,930	-,01943	,22049	-,45930	,42044
	Equal variances not assumed			-,087	62,630	,931	-,01943	,22315	-,46541	,42655
D_TOTAL	Equal variances assumed	1,257	,266	,385	69	,702	,08600	,22357	-,36001	,53202
	Equal variances not assumed			,380	62,373	,705	,08600	,22643	-,36657	,53858

Source: (Ramz, 2022).

Table 25. Group Statistics

Group Statistics					
	Your Work Sector	N	Mean	Std. Deviation	Std. Error Mean
PA_TOTAL	Public	23	1,5543	,35320	,07365
	Private	23	1,4348	,57017	,11889
EE_TOTAL	Public	23	3,4674	,86374	,18010
	Private	23	3,7174	,86374	,18010
D_TOTAL	Public	23	1,9855	,63943	,13333
	Private	23	1,8696	,86304	,17996

Source: (Ramz, 2022).

According to the results of independent t-test analysis, the burnout levels of nurses working at private and public hospitals are not different. On the other hand both groups suffer from high level of burnout.

Table 26. Independent T- Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PA_TOTAL	Equal variances assumed	,175	,678	,855	44	,397	,11957	,13985	-,16229	,40142
	Equal variances not assumed			,855	36,717	,398	,11957	,13985	-,16388	,40301
EE_TOTAL	Equal variances assumed	,014	,906	-,982	44	,332	-,25000	,25470	-,76332	,26332
	Equal variances not assumed			-,982	44,000	,332	-,25000	,25470	-,76332	,26332
D_TOTAL	Equal variances assumed	,605	,441	,518	44	,607	,11594	,22397	-,33543	,56732
	Equal variances not assumed			,518	40,560	,607	,11594	,22397	-,33652	,56840

Source: (Ramz, 2022).

4.5 ANOVA test Analysis:

When one way ANOVA test was conducted to test H1, it's seen that the mean values for emotional exhaustion, personal accomplishment and depersonalization of doctors, nurses and supportive staff are significantly different. Post-hoc comparisons showed that doctors are in worse than both nurses and supportive staff. On the other hand, in terms of D they are better than nurses and supportive staff therefore, H1 is accepted.

Table 27. ANOVA Test

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PA_TOTAL	Between Groups	2,914	2	1,457	3,604	,030
	Within Groups	60,242	149	,404		
	Total	63,156	151			
EE_TOTAL	Between Groups	6,793	2	3,396	4,502	,013
	Within Groups	112,398	149	,754		
	Total	119,191	151			
D_TOTAL	Between Groups	4,911	2	2,456	3,529	,032
	Within Groups	103,685	149	,696		
	Total	108,596	151			

Source: (Ramz, 2022)

Table 28. Multiple Comparisons

Multiple Comparisons							
LSD							
Dependent Variable	(I) Your Profession	(J) Your Profession	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
PA_TOTAL	Doctor	Nurse	,31216*	,11809	,009	,0788	,5455
		Supportive Staff	,18684	,13539	,170	-,0807	,4544
	Nurse	Doctor	-,31216*	,11809	,009	-,5455	-,0788
		Supportive Staff	-,12532	,14452	,387	-,4109	,1603
	Supportive Staff	Doctor	-,18684	,13539	,170	-,4544	,0807
		Nurse	,12532	,14452	,387	-,1603	,4109
EE_TOTAL	Doctor	Nurse	-,41772*	,16131	,011	-,7365	-,0990
		Supportive Staff	-,43255*	,18493	,021	-,7980	-,0671
	Nurse	Doctor	,41772*	,16131	,011	,0990	,7365
		Supportive Staff	-,01483	,19740	,940	-,4049	,3752
	Supportive Staff	Doctor	,43255*	,18493	,021	,0671	,7980
		Nurse	,01483	,19740	,940	-,3752	,4049
D_TOTAL	Doctor	Nurse	,33678*	,15493	,031	,0306	,6429

		Supportive Staff	,39099*	,17761	,029	,0400	,7420
	Nurse	Doctor	-,33678*	,15493	,031	-,6429	-,0306
		Supportive Staff	,05421	,18960	,775	-,3204	,4289
	Supportive Staff	Doctor	-,39099*	,17761	,029	-,7420	-,0400
		Nurse	-,05421	,18960	,775	-,4289	,3204

*. The mean difference is significant at the 0.05 level.

Source: (Ramz, 2022).

Perceived Service Quality AND Patient satisfaction

4.6 Demographic characteristics of the sample group (Descriptive Statistics):

In this section, the author examined the demographic characteristics of the group based on Gender, Marital Status, Educational Levels, and Work Sector.

Table 29. Gender frequency distribution and percentage

Gender of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Other	2	1.6	1.6	1.6
	Female	47	38.2	38.2	39.8
	Male	74	60.2	60.2	100.0
	Total	123	100.0	100.0	

Source: (Ramz, 2022).

Interpretation

According to Table Number (27) 60.2% of participants are male 38.2% of participants are female and 38.2% are other.

Table 30. Education frequency distribution and percentage

Education of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Graduate	30	24.4	24.4	24.4
	High School	33	26.8	26.8	51.2
	Primary School	2	1.6	1.6	52.8
	Secondary School	3	2.4	2.4	55.3
	Undergraduate	45	36.6	36.6	91.9
	Vocational School	10	8.1	8.1	100.0
	Total	123	100.0	100.0	

Source: (Ramz, 2022).

Interpretation

According to Table Number (28) 24.4% of participants are Graduate 26.8% of participants are High school, 1.6 % are Primary school, 2.4% secondary school, 36.6% are undergraduate and 8.1% vocational school.

Table 31. Marital Status frequency distribution and percentage

Marital Status of Respondents					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	65	52.8	52.8	52.8
	Other	1	.8	.8	53.7
	Single	57	46.3	46.3	100.0
	Total	123	100.0	100.0	

Source: (Ramz, 2022).

Interpretation

According to Table Number (29) 52.8% of participants are married 0.8% of participants are other and 46.3% are single.

Table 32. Admitted Hospital frequency distribution and percentage

Admitted Hospital					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public	23	18.7	18.7	18.7
	Private	57	46.3	46.3	65.0
	Public	43	35.0	35.0	100.0
	Total	123	100.0	100.0	

Source: (Ramz, 2022).

Interpretation

According to Table Number (30) 18.7 + 35.0% = 53.7% of participants admitted to public hospitals 46.3% of participants admitted to private hospitals.

4.7 Reliability Analysis:

The result of Cronbach Alpha Reliability Analysis was 0.984 which shows that perceived service quality scale is highly reliable. Item E5 under Empathy sub-scale was revers coded before starting the analysis because all items in a scale should be in the same direction (positive or negative), as a rule.

Table 33. Reliability of Perceived Service Quality Scale

Reliability Statistics	
Cronbach's Alpha	N of Items
,984	48

Source: (Ramz, 2022).

4.8 Explanatory Factor Analysis:

A series of EFA was conducted to check the validity of the Perceived Service Quality Scale. Items with factor loadings below 0.50 and not loaded under any factor were eliminated to obtain strong scale validity. As a result, R2, PAT_N_6, R4, E6, PA_N_8 were eliminated. Similarly, items loaded with more than one factor were eliminated. As a result, F6, PE2, PE9, PE7, PRO3, PRO-4, PE-8 and E8 were

excluded. Additionally, since R1 is loaded as just one item under a factor, the analysis is repeated through excluding it. At the end, a two factor structure is obtained. The first factor includes items from empathy, giving priority to inpatients' need, relationships, and professionalism of staff. For this reason, this factor is named as "human related factors". The second factor is includes items from food and physical environment sub-scales. For this reason, this factor is named as "physical environment related factors". Although, Arasli et al. (2018) reached a six factor structure for their scale, the factor structure for the present study shows a two dimensional perception. In other words, it seems like Afghan patients evaluate the service quality in two dimensions as human related and physical environment related factors. Further analysis was conducted through these two dimensions which represent human related factors and physical environment related factors.

Table 34. Explanatory Factor Analysis

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,951
Bartlett's Test of Sphericity	Approx. Chi-Square	4,529,823
	df	561
	Sig.	,000

Source: (Ramz, 2022).

Table 35. Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	20,831	61,266	61,266	20,831	61,266	61,266	16,197	47,637	47,637
2	2,484	7,306	68,572	2,484	7,306	68,572	7,118	20,935	68,572
3	1,046	3,075	71,647						
4	,968	2,848	74,495						
5	,769	2,262	76,757						
6	,672	1,976	78,733						

7	,607	1,787	80,520						
8	,593	1,744	82,264						
9	,550	1,616	83,880						
10	,488	1,436	85,316						
11	,476	1,399	86,715						
12	,425	1,249	87,964						
13	,390	1,147	89,111						
14	,366	1,075	90,186						
15	,326	,958	91,145						
16	,313	,920	92,065						
17	,300	,882	92,947						
18	,252	,742	93,688						
19	,237	,697	94,385						
20	,212	,622	95,008						
21	,202	,594	95,602						
22	,195	,572	96,174						
23	,177	,519	96,693						
24	,164	,483	97,177						
25	,139	,408	97,585						
26	,134	,393	97,977						
27	,130	,383	98,360						
28	,112	,330	98,690						
29	,107	,314	99,005						
30	,089	,262	99,267						
31	,076	,223	99,491						
32	,065	,190	99,681						
33	,060	,176	99,857						
34	,049	,143	100,000						
Extraction Method: Principal Component Analysis.									

Source: (Ramz, 2022).

Table 36. Rotated Component Matrix

Rotated Component Matrix		
	Component	
	1	2
PAT_N_5_@5. In the hospital I was treated with respect	,856	
PRO_1_@1. The doctor talked to me frankly and politely	,855	
R_3_@3. I was treated with dignity and had adequate privacy during my stay.	,840	
PAT_N_2@2. The nurses were polite while speaking with me and myfamily	,817	
PAT_N_9_@9. The doctors spent enough time examining me	,816	
PAT_N_1_@1. The doctors were courteous while speaking to me and my family	,812	
PAT_N_7_@7. The doctors were capable of performing tests and procedures	,809	

E_1_@1. The doctors did their best to make me emotionally comfortable	,808	
E_4_@4. The doctors took care of me as soon as I arrived on COVID-19	,800	
R_7_@7. The use of each procedure and test was explained to me before done	,794	
R_6_@6. The doctors explained frankly to me the reasons for tests and procedure	,794	
PRO_5_@5. The doctors gave me medical advice in simple way that Icould	,793	
R_5_@5. The doctors asked my permission before preforming any test on me	,783	
PE_1_@1. The ward was clean at all times	,771	
R_8_@8. The nurses asked my permission before preforming any test to me	,763	
PRO_2_@2. The doctors carried out my tests completely and carefully	,748	
PE_5_@5. Inside the ward noises were kept at minimum level during the night	,738	
E_10_@10. The doctors discussed medical issues with me after discharge	,732	
PE_3_@3. There was adequate number of bathroom and toilet in the ward	,728	
E_3_@3. The doctors spent extra time with me to discuss my fear and condition	,715	
E_2@2. The doctors worked hard to prevent me from worrying	,713	
PAT_N_4_@4. My personal concerns were of utmost important for the hospital	,706	
E_7_@7. I was involved in the planning of medical treatment	,670	
PE_4_@4. The beds, pillows and mattresses were clean and comfortable	,669	
E_5_@5. Whenever I asked for help nurses did not pay attention	,633	
R_9_@9. The nurses were kind, gentle and sympathetic at all times	,618	
E_9_@9. I was presented with choices when doctors were deciding about treatment	,550	
PAT_N_3_@3. In the hospital I was taken care as an individual not like a person	,546	
F_5_@5. I was asked about the size of portion that I would like to have		,846
F_4_@4. The food which I had asked for was given to me		,824
PE_6_@6. The ward was well furnished and decorated		,823
F_2_@2. There was a choice of food on the menu		,815
F_1_@1. The meals were well presented		,813
F_3_@3.The meals were still hot when they were served		,758
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.a		
a Rotation converged in 3 iterations.		

Source: (Ramz, 2022)

4.9 Correlation and Regression Analysis:

A correlation and multiple regression analysis were conducted to test H1. According to the results of correlation analysis, there is a positive and significant correlation between human related factors and patient satisfaction ($r = 0.476$, $p = 0.01$). Similarly, according to the result of correlation analysis, there is a positive and significant correlation between physical environment related factor and patient satisfaction ($r = 0.649$, $p = 0.01$). The result of Multiple Regression Analysis showed an adjusted r square value of 0.415 which is also significant. On the other hand, the only significant beta coefficient belongs to physical environment related factors which is 0.593. Therefore, there is no cause and effect relationship between patient

satisfaction and human related factors although they are correlated. On the other hand, positive perceptions of the physical environmental factors affect patient satisfaction positively. As a result, H1 is accepted partially. (This can be interpreted as patients do not blame health personnel who are working under high pressure during COVID-19 pandemic. They understand them. They rather take physical environment factor into consideration when they evaluate their satisfaction from the hospitals.

Table 37. Correlations and Regression Analysis

Correlations				
		S_1_The medical care I received was just perfect	Total- human related	Total-environmental related
S_1_The medical care I received was just perfect	Pearson Correlation	1	,476**	,649**
	Sig. (2-tailed)		,000	,000
	N	123	123	123
Total - human related	Pearson Correlation	,476**	1	,661**
	Sig. (2-tailed)	,000		,000
	N	123	123	123
Total environment related	Pearson Correlation	,649**	,661**	1
	Sig. (2-tailed)	,000	,000	
	N	123	123	123
**. Correlation is significant at the 0.01 level (2-tailed).				

Source: (Ramz, 2022)

Table 38. Regression Analysis Entered Variables

Variables Entered/Removed			
Model	Variables Entered	Variables Removed	Method
1	Total-environment related, total-human related	.	Enter
a. Dependent Variable: S_1_@1The medical care I received was just perfect.			
b. All requested variables entered.			

Source: (Ramz, 2022)

Table 39. Summary Model

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,652[a]	,425	,415	,673
a. Predictors: (Constant), total- environment related, total- human related				

Source: (Ramz, 2022)

Table 40. ANOVA Analysis Test

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40,126	2	20,063	44,274	,000[b]
	Residual	54,379	120	,453		
	Total	94,504	122			
a. Dependent Variable: S_1_@1The medical care I received was just perfect						
b. Predictors: (Constant), total- environment related, total- human related						

Source: (Ramz, 2022)

Table 41. Coefficients

Coefficients						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1,420	,280		5,066	,000
	Total- human related	,084	,092	,084	,915	,362
	Total- environment related	,577	,090	,593	6,424	,000
a. Dependent Variable: S_1_@1. The medical care I received was just perfect.						

Source: (Ramz, 2022)

Table 42. Group Statistics

Group Statistics					
	Admitted Hospital	N	Mean	Std. Deviation	Std. Error Mean
S_1_@1.The medical care I received was just perfect	Public	66	3,23	,925	,114
	Private	57	3,91	,662	,088
Total-human related	Public	66	3,6504	,67340	,08289
	Private	57	4,2212	,99535	,13184
Total- environment-related	Public	66	2,8030	,92769	,11419
	Private	57	3,4620	,73599	,09748

Source: (Ramz, 2022)

4.10 Independent T-Test Analysis:

When an independent t-test analysis conducted to test H2 and H3, it is seen that the perception of patients in public and private hospitals are significantly different in terms of human relation and physical environment dimensions. For both dimensions, patients perceived the conditions of private hospitals better than the conditions of public hospitals. The situations are the same for satisfaction. Patients are more satisfied with the services of private hospitals. As a result H2 and H3 were accepted.

Table 43. Independent T- Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
S_1_@1The medical care I received was just perfect	Equal variances assumed	11,429	,001	-4,655	121	,000	-,685	,147	-,976	-,394
	Equal variances not assumed			-4,767	117,162	,000	-,685	,144	-,970	-,400
Total-human related	Equal variances assumed	6,234	,014	-3,767	121	,000	-,57075	,15151	-,87070	-,27079
	Equal variances not assumed			-3,665	96,088	,000	-,57075	,15573	-,87986	-,26163
Total-environment related	Equal variances assumed	7,032	,009	-4,316	121	,000	-,65896	,15268	-,96123	-,35668
	Equal variances not assumed			-4,389	120,178	,000	-,65896	,15014	-,95622	-,36169

Source: (Ramz, 2022)

4.11 Result:

In the first study which is level of burnout in hospital, Cornbach Alpha Reliability analysis showed 0.732 the final reliability, according to explanatory factor analysis the final factor structure includes three dimensions which are similar to the work of Bojana Matejic et al. (2015) except PA2.

As seen in the mean value of personal accomplishment which is 1.68 the health personnel do not feel energetic, relaxed, calm and effective during COVID-19 pandemic. Similarly, they are experiencing emotional exhaustion but depersonalization mean values are not very high. When Independent t-test analysis conducted to test H2, it is seen that the health personnel working in public and private hospitals are significantly different in terms of personal accomplishment dimensions. On the other hand no difference was observed for emotional exhaustion and depersonalization for emotional exhaustion and depersonalization. When one way ANOVA test was conducted to test H1, it showed that the mean values for emotional exhaustion, personal accomplishment and depersonalization of doctors, nurses and supportive staff are significantly different. Post-hoc comparisons showed that doctors are in worse than both nurses and supportive staff. On the other hand, in terms of D they are better than nurses and supportive staff.

According to the results of independent t-test analysis, the burnout levels of doctors working at private and public hospitals are not different. On the other hand, both groups suffer from high levels of burnout. According to the results of independent t-test analysis, the burnout levels of nurses working at private and public hospitals are not different. On the other hand, both groups suffer from high levels of burnout.

In the second study reliability of the scale was 0.984 which shows that the perceived service quality scale is highly reliable and the mean value for perception of human related factors is 3.91which may be seen an indicator of Afghan patients' appreciation of the health personnel. There two possible interpretations for service quality and patient satisfaction 1; patients, may show an understanding for the health personnel. 2; Although high burnout levels, health personnel still perform good in terms of human relations finally the satisfaction level of Afghan patients is 3.54 which

is a little above the average and patients are more satisfied from Private hospitals then public in terms of perceived service quality.

4.12 Conclusions and Suggestion:

Recently, health care environment has required more demanding pace, sensitive timing, and emotionally intense, even more so in the past 3 years with COVID 19 pandemic. Therefore, this study is conducted to find out the level of burn out and its impact on health care workers. In this study reliability analysis, explanatory factor analysis, and independent t test were conducted to find about the three dimensions which represent emotional exhaustion, personal accomplishment and depersonalization.

The results depicted that health personnel do not feel energetic, tranquil, calm and productive during COVID-19. Correspondingly, they are experiencing emotional exhaustion. This taken a toll on their body which leads the personal deterioration of overall health In order for the health care personal to function effectively, they need to be physical, mentally and emotionally prepared and long working hours. In addition, the result indicated that the health personnel working in public and private hospitals are suggestively dissimilar in terms of personal accomplishment dimensions. On the other hand, no difference was observed for emotional exhaustion and depersonalization. It seems that emotional exhaustion and depersonalization are common both in private and public hospitals as the demand for health care workers have been high since COVID 19 started. This also may indicate that they may share similar factors that affected them emotionally. Both private and public hospitals health workers work long hours, sleep less, and they have the feeling of floating in the air. The result further shows that the mean values for emotional exhaustion, personal accomplishment and depersonalization of doctors, nurses and supportive staff notably differ. Post-hoc comparisons indicated that doctors are in far worse situation than nurses in terms of personal accomplishment. Their emotional exhaustion is worse than both nurses and supportive staff. Conversely, in terms of depersonalization, they are better than nurses and supportive staff. In this case, this designate that the doctors are prone to higher level of stress than nurses and supportive staff while generally nurses experiences higher level of stress. However, in regards to depersonalization, it seems that due to the fact that the doctors do not work as many long hours as nurses, they

have more control over their physical body. Moreover, doctors do not stand and walk around in the hospital as much as nurses which do not make them as physically exhausted.

During COVID 19 pandemic, the health care workers have been having a lot of pressure of working long hours due to the situation demand that has affected the quality of services that they provide. Patients have also started to have different perceptions of the health care workers in terms of human relations and physical environment. Thus, this study was undertaken to how patients evaluate the quality of service in hospitals during COVID 19. Reliability analysis, explanatory factor analysis and independent t test were conducted.

. The results indicate that Afghan patients assess the service quality in two dimensions which are human related and physical environment related factors. They respect and show gratitude towards health personal. Even burnout is prominent among the health care personnel; they still seem to be fulfilling their responsibilities in term of human relations. In relations to physical environment, their satisfaction depends whether the hospital is private or public. They have more positive attitudes and satisfaction both in terms of human relation and physical environment to private hospitals than to that of public hospitals. The reason could be that public hospitals are free of charge and the physical environment as well personnel do not feel pressured as much to serve the patients to the best of their abilities, In addition, due to corruptions and nepotism, the promotions of health care workers may not be done based on their knowledge and skills as well experience, but rather based on which high authority they may know in the hospital or in the ministry of public health to assign them higher rank. This may not relate to the merit. Furthermore, public hospitals are not as competitive and the health care personals are being paid very less e.g. around 100 dollars to a nurse who demotivates the personal and they do not work as hard. Some of the health care workers may also have a second job or work in another health care organization to meet their family's needs. However, in private hospitals, there are more restrictions and pressure on the health care workers to work hard and fulfill their responsivities well so that they keep their patients satisficed and they keep using their service. There is also more competitions among health care workers and their salary is slightly higher in private hospitals than public school. They also have more modern equipment and the personnel is obligated to keep the environment neat. Moreover, there are

competitions among private hospitals which encourages them to provide better services to keep customers service. Thus, the government needs to pay more to important issues related to both human relations and physical relations of public hospitals for better customers' satisfaction.

4.13 Limitations:

The study was limited only to Kabul province with less number of hospitals. However, Afghanistan has 34 provinces and hundreds of hospitals. Also the study has two parts and the author had to take two separate surveys from different two sources of people which was time consuming for the author.

During the surveys the author has faced problems which are listed below:

Getting permission from public health or hospitals' authorities was a big challenge especially for public hospitals which was time consuming and challengeable task for author but the surveys done by helping friends in a confidential situation.

As the surveys were online, due to low economy the participants didn't have internet to fill out the form so the author provide them internet.

Most of the participants were not familiar with Google form survey and how to fill it out so the author had to explain how to fill the form and choose the appropriate answer one by one to them. It was also time consuming for the author.

In the first study the target participants were healthcare personnel who have been working in COVID-19 emergency wards; it was very difficult and dangerous to conduct the survey. Same thing for second study, the participants were patients who got the care at COVID-19 wards or were taking the care there which was more dangerous and challengeable.

At first people were not showing interest to answer the questionnaires and said to author to send the link to their social media pages and will fill it out but the author spent enough time to sit with the participants and guide them to fill out the forms.

In some cases there was a rumor especially among female participants that if they open the forms link their personal phone's data will be collected, but the author talked the issue with a qualified staff at the hospital, then the qualified staff explained everything about the survey to the female participants and the problem solved.

Due to some sociocultural restrictions the percentages of female participants were less than expected number.

4.14 Recommendations and Suggestion for future researches:

Based on the surveys and analysis that has been done in this research, the result that the author realized and found out through a proper investigation below are recommendation for decreasing level of burnout among healthcare personnel and increasing hospital perceived service quality and patient satisfaction also suggestion for the future research:

4.14.1 Suggestions for further Researches:

As the studies covered only six private and public hospitals in Kabul city which is the capital of Afghanistan, in the future studies other provinces should be included with bigger sample size in order to increase the findings and generalizability.

As burnout is a new phenomenon in Afghanistan the same research should be done in other sectors too.

It should be investigated whether low economy, low salary and wages, low transport and medical allowances, no health insurance and inadequate and poor quality of food among healthcare personnel which are stress creators cause level of burnout?

In the future studies researchers should include other dimensions of the perceived service quality and make a stronger and comprehensive questionnaire to investigate patient satisfaction based of perceived service quality.

4.14.2 Recommendations:

There are many challenges in healthcare system in Afghanistan and it should be changed. (Example: at a hospital, one internal doctor or nurse should treat or deal with only one body system diseases like respiratory system or cardiac not all the internal systems. This change will decrease pressure on healthcare personal finally decrease the level of burnout and increase perceived service quality and patient satisfaction.

The health sectors (Public and Private) should increase their financial budget to hire more healthcare personnel in order to decrease the shift time and pressure among healthcare personnel. Hiring more personnel will decrease stress and level of

burnout among healthcare professionals and increase the perceived service quality and patient satisfaction. (Healthcare personals work six full days and three full nights, totally 98 hours per week).

Gender should be observed in healthcare centers, there are very few female healthcare personnel at the hospitals especially public hospitals. Only male professionals can't handle or take part to treat female patients therefore observing gender can decrease stress/ level of burnout and increase perceived service quality and patient satisfaction.

Burnout sections should be established in countrywide for all sectors. (The survey that the author done among more than 200 health professionals nobody know about burnout and it seems that burnout is a new phenomenon in Afghanistan. Establishing burnout centers people will know about burnout and future problems caused by burnout and help in decreasing level of burnout and increasing perceived service quality and patient satisfaction.

Recovery centers for treatment of burnout in healthcare centers should be established in order to treat people who get burnout after self-burnout testing or in organizational level.

The universities should include and course by the name of job burnout in their curriculums to teach students before they start a job after graduation.

All sectors management should hold trainings, workshops and seminars about burnout continuously for their employees.

The hospitals should provide up to date and modern medical equipment with high technology in order to increase perceived service quality. (Most hospitals especially public hospitals don't have medical equipment with high technology, it's because people go out to other diagnostic centers to do tests and examinations).

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