



THE ASSOCIATION OF PSYCHOLOGICAL DISTRESS AND BURNOUT ON
JOB SATISFACTION AMONG MEDICAL HEALTHCARE PROVIDERS IN
THE HEALTHCARE INDUSTRY DURING THE PANDEMIC COVID-19 IN
MALAYSIA

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PSYCHOLOGICAL DISTRESS, BURNOUT & JOB SATISFACTION

The Association of Psychological Distress and Burnout on Job Satisfaction among Medical
Healthcare Providers in The Healthcare Industry During the Pandemic COVID-19 in
Malaysia

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Abstract

This research paper aims to determine the association of job satisfaction with psychological distress and burnout among medical healthcare providers in the healthcare industry during the Pandemic COVID-19 in Malaysia. A cross-sectional quantitative study was performed on 95 Medical Healthcare Providers who worked during the Covid-19 Pandemic in Malaysia such as doctors, nurses, medical assistants, pharmacists, lab technicians and others. The participants were recruited using the selective sampling method. Statistical Packages for Social Science (SPSS) was used to run the analysis. The Spearman correlation coefficient was measured for the association between the variables and to test the underlying mechanism that could impact possible causal relationships. The results indicated a weak negative correlation between psychological distress and job satisfaction as well as a moderate negative correlation between burnout and job satisfaction among medical healthcare personnel during the Covid-19 Pandemic in Malaysia. The findings obtained from this study can be utilized to raise awareness as a potential strategy in boosting the mental health of healthcare providers by lowering stress and burnout in the future. This study can contribute to the development of similar studies by future researchers in Malaysia.

Keywords: psychological distress, burnout, job satisfaction, medical healthcare providers

DECLARATION

We declare that the material contained in this paper is the end result of our own work and that due acknowledgement has been given in the bibliography and references to ALL sources by they printed, electronic or personal.

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Table of Contents

Abstract	i
Declaration	ii
Chapters	
I. Introduction	1
Background of the Study	1
Problem Statement	2
Research Questions	3
Research Objectives	4
Research Hypotheses	4
Significance of Study	4
Conceptual Definition	5
Operational Definition	7
Chapter Summary	9
II. Literature Review	10
Psychological Distress	10
Burnout	11
Job Satisfaction	13
Psychological Distress and Job Satisfaction	14

	Burnout and Job Satisfaction	16
	Theoretical Framework	17
	Conceptual Framework	20
	Chapter Summary	22
III.	Methodology	23
	Research Design	23
	Sampling Technique	23
	Eligibility Criteria	24
	Sample Size	24
	Ethical Clearance Approval	25
	Location of the Study	25
	Pilot Study	26
	Procedure	27
	Measures	27
IV.	Results	31
	Introduction	31
	Descriptive Statistics	31
	Topic-Specific Characteristics	33
	Data Diagnostic and Missing Data	35
	Assumption of Normality	36
	Defining and Processing of Statistical Outliers	38
	Assumption of Multiple Linear Regression	39
	Data Transformation	41

Statistical Analysis	41
V. Discussion and Conclusion	44
Psychological Distress and Job Satisfaction	44
Burnout and Job Satisfaction	46
Implications	48
Limitations & Recommendations	50
Conclusion	51
References	52
Appendices	68
Appendix A. Effects Size and G*Power	68
Appendix B. Online Survey Form	71
Appendix C. Histogram	86
Appendix D. P-P Plot	88
Appendix E. Kolmogorov-Smirnov (K-S) Test	90
Appendix F. Boxplot	91
Appendix G. Scatterplot	93
Appendix H. Casewise Diagnostics	94
Appendix I. Case Summaries Table	95
Appendix J. SPSS Output for Normality Assumption Testing	98
Appendix K. SPSS Output for Assumption Testing of Multiple Linear Regression	99
Appendix L. Spearman <i>rho</i> Correlation	100

Chapter 1

Introduction

1.1 Background of Study

As a result of the pandemic Covid-19, the medical healthcare providers faced many challenges that had their job satisfaction impacted as a result. Job satisfaction can be described as a pleasurable or optimistic state deriving from the appraisal of an individual's career or career experience (Hirsh et al., 2010). In other words, job satisfaction refers to how people feel about their jobs and various aspects of their employment (Kolo, 2018). In this study, job satisfaction is particularly relevant and exciting to healthcare workers because job satisfaction significantly impacts organisational and employee health and well-being (Adams et al., 2000). This is important because healthcare workers are expected to provide high-quality patient care while working in a high-stress environment. Job satisfaction factors include personal growth, accountability, achievement, and acknowledgement, known as the intrinsically rewarding factors. Salary, nature of work, job security, company policies, supervision quality, and connections with others are extrinsic factors that lead to job dissatisfaction (Robbins, 2003). Therefore, other factors that are associated with job satisfaction, such as psychological distress and burnout, will be examined in this study.

According to Mirowsky and Ross (2002), psychological distress is defined as a state of emotional distress characterised by symptoms of depression (e.g., loss of interest; sadness; hopelessness) and anxiety (e.g., restlessness; feeling tense). Studies by Lai et al. (2020) and Liu et al. (2020) have stated that healthcare workers face physical and mental challenges because of the unexpected Covid-19 Pandemic, including psychological distress. On the other hand, burnout is a long-term adverse reaction to ongoing occupational stressors caused by a

mismatch between workers and their assigned jobs (Maslach & Leiter, 2016). It is a psychological syndrome characterised by chronic exhaustion, cynicism, and inefficacy, and it occurs as a result of a prolonged response to chronic workplace stressors. Burnout was becoming an occupational hazard among healthcare workers, particularly medical staff, with rates ranging from 25% to 75% in some clinical specialities (Portoghese et al., 2014). Therefore, this present study intends to examine the association between job satisfaction and psychological distress and burnout among the workers in the healthcare industry during the Covid-19 Pandemic in Malaysia.

1.2 Problem Statement

According to the World Health Organization (WHO), they announced the Coronavirus Novel 2019, which is also known as Covid-19, is a global pandemic. Malaysia is also one of the countries which are affected by Covid-19. Therefore, the Malaysian healthcare frontline workers, referred to as the unrecognised heroes such as doctors, matrons, medical assistants, and nurses, contribute their duties during this constant battle against Covid-19 (Bakar & Ramli, 2020). However, the impact of the Covid-19 Pandemic has impacted negatively on mental health, such as experiencing anxiety, burnout, depression, and stress among the Malaysian frontline workers, especially the healthcare professionals (Billings et al., 2021). According to the health director-general Tan Sri Dr Noor Hisham Abdullah, he has stated that the medical healthcare frontline workers work for longer hours than the other professionals to fight against the Pandemic. Hence, they showed several psychological and mental health symptoms for providing their one hundred percent commitment in their work (New Straits Times, 2021).

Besides, a local study by Roslan et al. (2021) demonstrates that in their sample of healthcare workers, the total prevalence of personal, job, and patient-related burnout was 53.8%, 39.1%, and 17.4%, respectively. Although past studies from different countries have shown a significant increase in psychological distress (van der Goot et al., 2021) and in burnout (Duearte et al., 2020) of healthcare workers such as consultants, doctors, nurses, nutritions, pharmacists, physicians and healthcare assistants as factors that lead to lower job satisfaction, in the Malaysian context, it is yet to be investigated to discuss these two factors together that measures the healthcare workers' job satisfaction. For example, a study by Subhas et al. (2021) states their research on fear and stress linked to psychological distress among healthcare workers in Selangor.

Following that, regarding burnout, Sheehan et al. (2021) & Roslan et al. (2021) conducted their respective studies to find out about burnout and the elements that contribute to it among Malaysian healthcare workers as one of the factors that may have an impact on their job satisfaction (Mohd Noor et al., 2021; Norhayati et al., 2021). Therefore, the purpose of this study is to see the effects of psychological distress and burnout on job satisfaction among healthcare workers during the Covid-19 Pandemic in Malaysia and to investigate how the two variables affect their job satisfaction.

1.3 Research Questions

1. Is psychological distress associated with job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia?
2. Is burnout associated with job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia?

1.4 Research Objectives

This research aims to determine the association of job satisfaction with psychological distress and burnout among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia.

1. To examine the association between psychological distress and job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia.
2. To examine the association between burnout and job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia.

1.5 Hypotheses

H1. Psychological distress is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

H2. Burnout is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

1.6 Significance of Study

This study aims to discover whether psychological distress and burnout is associated with job satisfaction among frontline workers in the healthcare industry during the pandemic COVID-19 in Malaysia. The findings may later be able to furnish insights into the role of psychological distress and burnout as predictors of job satisfaction as it might be able to contribute to the knowledge of the importance of job satisfaction among the Malaysian healthcare providers. In addition, it may also be helpful to determine the extent of

contribution the healthcare providers are providing while working in a high-stress environment to battle against the Covid-19. Besides, the findings obtained from this study can potentially provide information and raise awareness to the health institutions and frontline workers on how job satisfaction is affected by the factors stated above. Moreover, the results derived from the study might be helpful to display how job satisfaction plays a significant role as an indicator that determines their job performance and that increase in job satisfaction might also have higher levels of motivation to improve the frontline workers' job performances.

Additionally, the recommendations derived from this study can be helpful for the health institutions and hospital managements to implement them in order to reduce the healthcare workers' psychological distress and burnout to ensure they get enough satisfaction while performing their duties. For example, if allowing flexible work hours and remote working to the frontline workers might help them to increase their job satisfaction, then the hospital's managements can ensure the frontline workers working in their hospitals adjust their duty hours and have a good balance between their work life and personal life so that it could improve their job performance too. Last but not least, in the future, the findings from this study may also be possible to contribute to the development of similar studies by other researchers in Malaysia.

1.7 Conceptual Definition

1.7.1 Psychological distress

Psychological distress is the emotional state that one experiences when dealing with upsetting, frustrating, or harmful situations (Lerutla, 2000). According to Mirowsky and Ross (1989), psychological distress is the unpleasant psychological feeling of depression and

anxiety such as being tense, restless, worried, irritable, and afraid, which manifests emotionally and psychologically.

1.7.2 Burnout

According to the APA Dictionary of Psychology, burnout is defined as "exhaustion caused by physical, emotional, or mental exhaustion, accompanied by a lack of motivation, poor performance, and negative attitudes toward oneself and others". It occurs when performing at a high level of stress and tension, particularly from intense and prolonged physical or mental exertion or a hectic schedule.

1.7.3 Job Satisfaction

Job satisfaction refers to how pleased, comfortable, or satisfied an individual is with their job. It is a pleasurable or positive feeling that arises from assessing one's job or work experiences (Ali, 2016). The more content a person is with their job, the more likely they will describe themselves as satisfied.

1.7.4 Medical Healthcare providers

Medical healthcare providers promote human health by examining, diagnosing, treating, and preventing human illness, injury, and other physical and mental impairments in line with the needs of the people they serve (World Health Organisation, 2013). Medical healthcare providers are required to work outside of their homes in high-risk environments, putting them at risk of being exposed to possible infection. Doctors, nurses, lab assistance, pharmacist, paramedics, and personal care assistants are among those working as medical healthcare providers of the worldwide epidemic crisis, which are engaged in several

responsibilities of taking care of individuals possibly exposed or are exposed to the virus during the COVID-19 outbreak.

1.8 Operational Definition

1.8.1 Psychological Distress

Psychological distress in this study is presented by using the scores from The Depression, Anxiety and Stress Scale (DASS-21). DASS-21 is a set of three self-report scales developed to assess depression, anxiety, and stress levels. Higher scores reflect increased psychological distress, while lower scores imply decreased psychological distress.

1.8.2 Burnout

Burnout in this study is presented by using the scores from Maslach Burnout Theory-Human Services Survey for Medical Personnel (MBI-HSS MP). (MBI-HSS MP) is a self-report inventory developed to assess burnout severity in people based on emotional exhaustion, depersonalisation and personal accomplishment statements. Higher scores signify high burnout severity, while lower scores signify low levels of burnout severity.

1.8.3 Job Satisfaction

Job Satisfaction in this study is presented by using the scores from Minnesota Satisfaction Questionnaire (MSQ). MSQ is a self-report questionnaire developed to assess individuals' satisfaction with their job. Higher scores signify high job satisfaction, while lower scores signify low levels of job satisfaction.

1.8.4 Medical healthcare providers

The demographic section of the questionnaire consists of questions that categorise our respondents according to their careers in the healthcare field, such as doctors, nurses, medical assistants, pharmacists, and lab assistants. The eligibility of our respondents will be based on the inclusion and exclusion criteria of the sample.

Chapter Summary

In brief, the current study will look at the impact of psychological distress and burnout on job satisfaction among medical healthcare providers in the healthcare industry in Malaysia during the COVID-19 Pandemic. The increase in psychological distress and burnout associated with the COVID-19 pandemic outbreak in Malaysia prompted the conduct of this study, which sought to determine whether these two variables play a role in influencing the job satisfaction of medical healthcare providers. The findings from this study will supplement the existing literature by providing unique insight and scope for future research on a similar topic. Aside from that, the results obtained from this study may lead to appropriate recommendations that can be implemented by health institutions and hospital administrations to minimise the psychological distress and burnout experienced by medical healthcare providers, thereby ensuring that they receive sufficient satisfaction while carrying out their duties.

Chapter 2

Literature Review

2.1 Psychological Distress

In general, psychological distress is described as a state of emotional distress brought on by difficult-to-manage daily stressors and demands (Arvidsdotter et al., 2016). It can also be perceived as a dynamic disturbance that can impact an individual's social functioning and day-to-day living, according to Wheaton (2007). This study will look at psychological distress among the frontline workers during the COVID-19 Pandemic. According to prior studies, it has been proved that there was additional pressure placed on doctors and the healthcare system during the COVID-19 Pandemic indicating that such pressure increases the risk of psychological distress for doctors (Galbraith et al., 2020). This is due to an increase in the number of patients requiring treatment during the Pandemic, putting a strain on both healthcare resources and personnel.

Besides that, a study has indicated that healthcare professionals, especially nurses, are at risk of developing acute stress disorder (ASD) and subsequent psychological distress due to the COVID-19 Pandemic (Shahrour & Dardas, 2020). This is because they are the frontliners who are struggling to deal with this assertive and rapidly spreading virus by identifying and monitoring suspected cases, exposing themselves to the infection at any moment, and potentially rendering them unable to care for subsequent cases. In addition, a research study by Heath and Sommerfield (2020) has revealed that there are significant events that contribute to the psychological distress witnessed by the healthcare providers during the COVID-19 health crisis, such as the unexpected loss of loved ones, friends, and workmates as well as dealing with traumatic patients' experiences. Similarly, high levels of

psychological distress among nurses could be attributed to a variety of aspects, including less pay, a heavy amount of work and poor working conditions (Haslinda & Tyng, 2016), and a lack of qualified nurses.

Added by Zou et al. (2016), the rapid expansion of the industry and aging society, a rising burden of serious illnesses, an absence of adequate services, medical reform, and outrageous demands of administrations and patients were acknowledged as the factors contributing to the psychological distress of clinical nurses in general. It also has been pointed out that long-term COVID-19-related psychological distress is likely to have an adverse effect on the physical health of frontline workers in the healthcare service (Shechter et al., 2020).

2.2 Burnout

Burnout is a psychological condition characterised by emotional tiredness, powerlessness, detachment, poor attitudes toward life and work, and decreased personal success (Maslach & Jackson, 1981). The term "burnout" refers to a state of exhaustion caused by a mismatch between work demands and personal resources. Burnout occurs when individuals are physically and emotionally exhausted, dissatisfied with their job, inefficient, and isolated from coworkers (Kabir et al., 2016). According to a study by Blake et al. (2020), healthcare workers are expected to work long and inflexible hours as a result of the strain that the COVID-19 has placed on the healthcare system in terms of patient volume, resulting in burnouts that are exacerbated by their anxiety about their health.

Besides that, healthcare workers often experience heavy workloads, rigorous organisational requirements, limited time dealing with occupational obstacles, a fast-evolving knowledge base, and a lack of interpersonal support in everyday life (De Simone et al., 2019). These difficulties frequently result in "emotional exhaustion"(EE), in which a person is overworked and lacks the energy to finish a task, "depersonalisation"(DE), in which a person treats people coldly as objects, may accompany emotional exhaustion (Sultana et al., 2020), and decreased personal accomplishment (PA), that involves the individual's negative emotions about their jobs and the perception of competence (Leskovic et al., 2020). A person's emotional well-being is also affected by a lack of self-efficacy and competence. Therefore, emotional weariness, depersonalisation, and a diminished feeling of personal accomplishments characterise burnout, which has been an increasing worry for the healthcare community worldwide and in Malaysia since the commencement of the COVID-19 epidemic in Malaysia.

Furthermore, previous studies have connected burnout with numerous personal and patient care effects like diminishing empathy, expertise, patient safety and team collaboration, while on the contrary, it has increased attenuation and medical errors (Roslan et al., 2021). According to West et al. (2018), states that burnout is the outcome of increased workload, decreased job benefits and value conflicts which has been further maximised post-Covid-19. Moreover, substantial excessive efforts and low job satisfaction could lead to burnout, making the healthcare workers feel unguarded during pandemic times (Iacovides et al., 2003). Other than that, a study by Afulani et al. (2021) found that low perceived preparedness was linked to higher burnout and stress as lack of preparation generates fear of

infection, which can have a detrimental impact on healthcare workers' job satisfaction, productivity, level of care provided, and retention of workers.

2.3 Job Satisfaction

According to Eryl et al. (2021), during the COVID-19 Pandemic, medical healthcare workers were confronted with extraordinary professional obstacles. There have been numerous studies since the beginning of the Pandemic documenting the generality of stress, anxiety, and depression among frontline healthcare workers. A small number of studies have looked at how job satisfaction has changed due to the recession. As stated by Eryl et al. (2021), healthcare workers around the world are mostly unsatisfied with their jobs in the condition of the COVID-19 Pandemic.

People have a wide range of thoughts and beliefs about their current work, or an emotional response characterising the degree to which people like their jobs. These feelings and beliefs can be defined as job satisfaction (Rastogi & Dhingra, 2020). Performance, dedication, absenteeism, retention, and turnover rates have all been found to be affected by job satisfaction. Stress and exhaustion have a reciprocal relationship with it as well (Rastogi & Dhingra, 2020). As a result, job satisfaction among healthcare workers has a significant impact on patient care and health outcomes. Prior to the Pandemic, studies on healthcare workers' job satisfaction showed a high level of unhappiness among them (Ahmed et al., 2020). Nonetheless, the COVID-19 epidemic hasn't been factored into the working happiness of healthcare workers. According to Magnavita et al. (2021), workplace contentment can be influenced by a variety of factors, both work-related and personal.

In a study by Rastogi and Dhingra (2020), healthcare workers' job satisfaction is unquestionably influenced by the Pandemic's rapid evolution and unusual nature. As a result

of the many obstacles faced by healthcare workers, their job satisfaction has dropped. This is partly due to the increased risk of infection and the fear of infecting oneself or one's loved ones, as well as heavy workloads and a mental health burden (Ahmed et al., 2020). However, findings from another study suggest that the primary causes of job dissatisfaction among healthcare workers, such as nurses, were divided into three categories. First, discontentment with extrinsic job rewards, praise, and appreciation, which represented their perception that their demanding work was not appropriately compensated by financial and ethical rewards; second, dissatisfaction with work schedule, family and work-life balance, and team interaction, which were undoubtedly impacted by the heavy workload associated with COVID-19. Finally, the nurses' capacity for decision-making is hampered by their dissatisfaction with control and responsibility as a result of frequent revisions in official recommendations and practices with regard to COVID-19 (Said & El-Shafei, 2020).

2.4 Psychological Distress and Job Satisfaction

The relation between psychological distress and job satisfaction is well established by Labrague (2020), which indicated that an elevated amount of anxiety of COVID-19 was linked to increased psychological distress, which resulted in a decrease in job satisfaction as well as an increase in organisational and professional turnover intentions. In addition, this finding is consistent with previous research in other industries, which found that workers with increased levels of distress or anxiety regarding work-related situations feel more unpleasant and stressed, negatively impacting their job performance and satisfaction (McCarthy et al., 2016; Jones et al., 2015). According to Ghawadra et al. (2019), studies have revealed that increased levels of stress, anxiety, and depression experienced by nurses are associated with low job satisfaction.

Similarly, the findings of a research study revealed that the sudden outbreak of COVID-19 increased the number of infections in a short period of time, putting medical healthcare providers under more intense workloads, heavier physical and mental stresses, and ultimately threatening their job satisfaction (Yu et al., 2020). Furthermore, it was evident that the fear of the COVID-19 that the nurses witnessed had hampered their job performance as a psychological response to a stressful situation and environment (Gross & Canteras, 2012). Hence, it led to higher job dissatisfaction and increased motives to quit the career and the organisation. A striking resemblance has been found by Labrague (2020), claiming that virus outbreak issues such as elevated numbers of patients, the requirement of precautionary measures (Maben & Bridges 2020), maintaining social distance, and quarantine can exacerbate nurses' anxiety, impacting their mental and emotional health as well as their performance outcomes. Therefore, causing a decrease in job satisfaction.

Moving on, in a study by Poursadeghiyan et al. (2017), it is indicated that hospital nurses experience high levels of psychological distress due to severe stress caused by busy work schedules, the magnitude of their responsibilities, and interpersonal issues. Similarly, sources of stress such as outcomes for patients, peer conflict, a heavy level of work demands, inadequate monitoring and insufficient support have been attributed to lower health consequences and increased psychological distress (Khamisa et al., 2015). Further to that, the study's findings revealed that work-related stress caused by stressors is associated with low job satisfaction. A previously established research study in Iran examined the relationship between job stress, anxiety, and job satisfaction among nurses (Poursadeghiyan et al., 2017). The high work-related stress among nurses, as a result of their working arrangements and increased workloads, has exposed them to the risk of incurring great psychological distress

problems, which leads to decreased job satisfaction and poor mental health, according to that study.

2.5 Burnout and Job Satisfaction

In a study done before the COVID-19 Pandemic, a survey done by Osman and Abdlrheem (2019) found that low job satisfaction scores were significantly associated with the increase of emotional exhaustion perceptions while working as a nurse and having intense emotional exhaustion and high personal accomplishment scores were found as significant predictors of job satisfaction. The nature of work in the healthcare field involves unique job factors and duties that make health providers more likely to report experiencing significant burnout, leading to low job satisfaction in healthcare workers. This can be supported by a study that indicated that job satisfaction and burnout had been shown to be significantly affected by the type of work performed. There are significant correlations between job satisfaction and burnout, and job satisfaction generally increases as the level of burnout decreases (Tarcn et al., 2017).

In a study done by Roslan et al. (2021), it was found that respondents who were closely engaged in screening or managing patients with COVID-19 were found to be experiencing burnout as they were under the age of 40, married with no children, or had insufficient childcare support at home, had a health problem, perceived that they received poor social and emotional support at the workplace, or engaged in infrequent spiritual practices. Following that, burnout scores were found to be higher in healthcare workers who worked more than 60 hours each week (Roslan et al., 2021). Longer hours are linked to increased contact hours, prolonged PPE use, and sleep loss, all of which can contribute to burnout. Prolonged burnout eventually leads to lower levels of job satisfaction in medical

healthcare providers. More than a third of frontline workers, such as teachers, social workers, nurses, and correctional officers, experience emotional tiredness, cynicism, and a lack of personal accomplishment, all of which are symptoms of burnout resulting in frontline workers resigning (Linos et al., 2021).

Additionally, a study discovered that when employees experience burnout, their job satisfaction and task performance deteriorate (Kim et al., 2017). Job dissatisfaction is frequently linked to a greater likelihood of employee turnover. The association between burnout and turnover rate can signify the positive relationship between job satisfaction and burnout.

Numerous aspects of employment withdrawal syndrome, including absenteeism, the aim of quitting their jobs, and real-time turnover, has been associated with burnout. On the other hand, burnout leads to poorer work productivity and effectiveness for those who remain on the job. A study done by (Norhanaza et al., 2021) found burnout is linked to lower job satisfaction and a lack of dedication to one's job or organisation. In contrast, according to the research conducted by Alarcon (2016), job satisfaction is negatively related to the three dimensions of burnout. In a similar vein, numerous studies have revealed a negative relationship between job satisfaction and burnout among nurses and doctors working in a hospital setting (Tarcen et al., 2017; Fontova-almat et al., 2020). Additional research is required to investigate the relationship between burnout and job satisfaction among healthcare workers as a result of this discrepancy.

2.6 Theoretical Framework

Herzberg Two-Factor theory is a concept explaining that the contributing factors of worker satisfaction (motivation such as accomplishment, acknowledgement, and

development) and the contributing factors resulting worker dissatisfaction (basic necessity and personal factors, such as wage, work environment circumstances, and supervisory) are not inverses of one another but are, in fact, independent factors (Herzberg et al., 1967). According to Herzberg et al., (1967) , motivation factors are intrinsic to the job, while hygiene factors are extrinsic to the job. As a result, motivation factors only serve to boost and enhance employee satisfaction, whereas hygiene factors dramatically reduce job dissatisfaction. When hygiene factors decline to a threshold below that which the individual deems appropriate, job dissatisfaction occurs. Conversely, the opposite somehow doesn't necessarily apply. While the work environment is ideal, there is no dissatisfaction, but there is also little in the way of positive attitudes. Job satisfaction occurs with the presence of motivation, without it, job satisfaction ceases to occur in an employee. As a result, substandard hygiene factors can contribute to job dissatisfaction, whereas superior hygiene factors could decrease dissatisfaction but not induce job satisfaction in employees (Herzberg et al., 1967). Study done by Timmreck (2001) noted that One of the most efficient needs satisfaction frameworks used in healthcare organisations is Herzberg's two-factor theory.

Psychological distress is described as the distinct, unpleasant emotional state that a person develops in response to a particularly stressful situation and requirements that cause the individual harm, either temporarily or permanently (Ridner, 2004). Cognitive theory has been associated with psychological distress in this study. Negatively biased cognition is the main mechanism in psychological distress, according to the cognitive approach (Barlow & Durand 1999). Distressed workers often have a pessimistic view of themselves, their surroundings, and the future due to this process (Weinrach, 1988). They believe they are worthless, insufficient, unlovable, and flawed. Pessimistic thoughts and beliefs can have a

negative impact on an individual's feelings, emotions, and mental health. Excessive effects and dysfunctional behaviour, according to cognitive theorists, are caused by an individual's excessive or inappropriate approaches to understanding their experiences. As a matter of fact, it can be concluded that negative emotions and thoughts can result in experiencing psychological distress affecting an employee's job satisfaction.

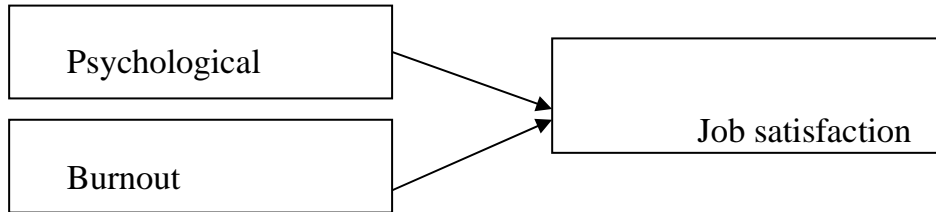
Maslach Theory defines burnout as a condition distinguished by chronic fatigue, cynicism, and a sense of personal failure (Bakker & Costa, 2014). Burnout comprises three dimensions which are emotional exhaustion, depersonalisation, and reduced personal accomplishment. The release or decline of the worker's emotional reserves results in the emotional exhaustion dimension (Rothmann, 2008). An increasing perception of emotional exhaustion is a fundamental component of burnout syndrome. Emotional exhaustion, to rephrase it, is the intrinsic aspect of burnout, referred to as the most crucial and determining aspect of burnout. In this case, the individual is physically and emotionally exhausted, unable to focus on their profession, and unaccountable to the individuals they serve or their coworkers as they experience the stress dimension of burnout (Maslach et al., 2003). An endeavour to detach oneself from the individual that their serving is known as depersonalisation (Maslach et al., 2001). Cynical, pessimistic, and callous traits, as well as impersonal interactions with colleagues or patients, are the manifestation of depersonalisation (Mealer M et al., 2016). This adverse response, which grows in severity, expresses its own in a variety of forms. Depersonalisation can manifest as unprofessional remarks targeted directly to colleagues, accusing patients of their health issues, or an incapability to convey empathy or grieving when a death occurs (Mealer M et al., 2016). Depersonalisation emerges when an individual treats the individual, they are providing service as entities instead of

human beings. Reduced personal accomplishment refers to the individual's discernment on career accomplishment not achieving personal expectations, leading to giving oneself a negative self-evaluation (Maslach & Jackson, 1981). In other words, it is regarding the decline in individual perception of performance and competency at work. This condition leads to failure in fulfilling job obligations and a decline in independence. This situation could be aggravated by a social withdrawal or career advancement chances. A decrease in personal accomplishments is affirmed well within the dimension of burnout in Maslach Burnout Theory. By reviewing three dimensions of burnout in Maslach Burnout Theory and its interconnection with job satisfaction, the level of burnout in an individual may affect job satisfaction.

Conceptual Framework

Figure 1

The Conceptual Framework of ‘Psychological Distress and Burnout on Job Satisfaction Among Medical Healthcare Providers During COVID-19 Pandemic in Malaysia’.



Note. This figure demonstrates the independent and dependent variables that will be reviewed in our study. The main objective of this research was to study the roles of psychological distress and burnout as predictors of job satisfaction among medical healthcare providers' during the COVID-19 Pandemic. The independent variables (IV) for this research were psychological distress, and burnout while the dependent variable (DV) was job satisfaction.

Chapter Summary

In summary, job satisfaction is an important factor that plays a pivotal role in employees' work life and in this case, healthcare frontliners are no exception. Job satisfaction leads to a positive workplace atmosphere, and it ensures lower turnover and higher work productivity within an organisation. This literature review has provided a scoping review on psychological distress, burnout, job satisfaction and how these variables could be linked to each other. Moreover, the explanation given in the literature review has proven that there is a significant positive relationship between psychological distress and job satisfaction and burnout and job satisfaction among medical healthcare providers. Although there is little research on job satisfaction and its association with psychological distress and burnout, yet most of it focuses on a different group of samples. Thus, this paper has focused on how the Malaysian healthcare frontliners' job satisfaction has been associated with the variables such as psychological distress and burnout.

Chapter 3

Methodology

3.1 Research Design

This is a correlational quantitative research method to study the association of psychological distress and burnout with job satisfaction among medical healthcare providers in Malaysia during the Covid-19 pandemic. As the current study sought to gather numerical values from data and evaluate the research hypotheses by performing statistical analysis, quantitative approach was used (Creswell, 2014). The main data gathered in the current studies were data of Psychological Distress, Burnout and Job Satisfaction. Data was collected using a cross-sectional study design as this study collected the data at one point in time while allowing the researchers to determine the association among different variables at a reduced cost (Setia, 2016). In this study, this technique was used to draw inferences about possible connections and linkage or to collect preliminary data that may be used to support further research and experimentation. Furthermore, the survey method is implemented as the fundamental objective of this method was to swiftly gather data on the characteristics of a large number of people of interest (Ponto, 2015). A self-report survey consisting of a section of demographic question and another section followed with three reliable psychometric instruments was presented to participants.

3.2 Sampling Technique

The selective sampling method, otherwise known as purposive, subjective or judgmental sampling method, a non-probability sampling method was used to recruit study participants. Purposive sampling entails a set of sample selection that is determined on the

researcher's judgement when choosing the samples (Sharma, 2017). For instance, in this study, medical healthcare providers in Malaysia who are involved in the healthcare industry will be selected as the participants. Researchers can make justifying decisions based on theoretical, analytical, or logical considerations through the assistance of selective sampling while being beneficial in qualitative research with many objectives (Berndt, 2020).

3.3 Eligibility Criteria

Participants will be chosen based on a set of qualifying criteria.

The inclusion criteria of the sample are:

1. Malaysian
2. Working in the healthcare industry
3. Must be a medical Medical Healthcare Provider

The exclusion criteria of the sample are:

1. Not Malaysian
2. Not working in the healthcare industry
3. Not a medical Medical Healthcare Provider

3.4 Sample Size

The G*Power method is used to estimate the sample size for the investigation.

Through the usage of G*Power analytics, unconditional and conditional parameters can be analysed using multiple linear regression in this research (Faul et al., 2009). The effect size for both independent variables will be determined using the formula below.:

$$f^2 = \frac{R^2}{1 - R^2}$$

The effect sizes are derived by taking the average and then entering them into G*Power analytics to generate a sample size recommendation of 70 participants for this study (Appendix A). An additional 20 were included in the sample size calculation as a precaution for outliers and missing data. In simple terms, a sample size of 90 medical healthcare providers were sought after in the present research.

Throughout the process of data collection, a total of 100 respondents were obtained. Incomplete responses, on the other hand, were rejected from further processing when respondents left any blank item on the online survey form. The total sample size for the current study was 96 medical healthcare providers after the removal of 4 incomplete responses.

3.5 Ethical Clearance Approval

Following the research proposal's completion proposal, the Scientific and Ethical Review Committee (SERC) of Universiti Tunku Abdul Rahman (UTAR) granted ethical clearance approval. To guarantee that the current study was carried out ethically, the process of data collection was initiated after obtaining ethical clearance authorization from the appropriate institution. (Re: U/SERC/299/2021)

3.6 Location of The Study

Qualtrics, a web-based operating system which allowed the researchers to construct online surveys, was used to create an online self-report questionnaire, which was then distributed across multiple social media platforms, including Instagram, WhatsApp, and Facebook messenger. The data was gathered among Malaysian medical healthcare providers from 13 states and three federal territories.

3.7 Pilot Study

Before we started collecting data for our research, pilot research involving 30 medical healthcare providers, the purpose of our pilot study's purpose was to make sure that the reliability of the psychometric instruments was sufficient. When the Cronbach's alpha coefficient exceeds 0.60, the reliability analysis of psychometric instruments is regarded as valid and dependable (Ursachi et al., 2015). The project will move forward with the final data collection phase using the calculated sample size if the results of the pilot study seem acceptable and reliable.

With the use of the Statistical Package for Social Sciences (SPSS), the scales' reliability was examined. It is generally agreed that a value between 0.6 and 0.7 denotes an adequate level of reliability and a value between 0.8 and larger, signifies a great standard of reliability (Ursachi et al., 2015). Table 1 shows that all three scales demonstrated high reliability in both the pilot study and the current study, with Cronbach's Alpha values over 0.8 for each scale.

Table 1

Reliability of the Instruments

Instrument	Quantity of items	Cronbach's Alpha Value , α	
		Pilot Study	Present Study
Depression Anxiety Stress Scale-21	21	.935	.955
Maslach Burnout Inventory	22	.910	.887

-Health Service Survey

Minnesota Satisfaction	20	.930	.932
Questionnaire			

3.8 Procedure

The questionnaire was distributed online, and the research data was obtained using an online survey platform, Qualtrics. Part A of our questionnaire, the Consent Form for Research Participation and Personal Data Protection, was used to get informed consent from respondents. This section included details regarding the current study, including the objectives of this study, consensual participation, possible risks, concerns about confidentiality, the researchers' contact information, and inclusion criteria for respondents. Participants were advised that their participation in the study is entirely optional and that they are free to stop at any moment, without having to provide a reason. Additionally, it was made very clear that all data collected would be kept private and anonymous. The participant information will only be used for academic purposes.

3.9 Measures

The questionnaire survey included four demographic questions such as age, gender, ethnicity as well as three tests: the 21-item Maslach Burnout Inventory-Health Services Survey, the 22-item Maslach Burnout Inventory, and the 20-item Minnesota Satisfaction Questionnaire.

3.9.1 Psychological Distress

Developed by Lovibond and Lovibond (1996) to assess symptoms of depression, anxiety and stress among adults, the Depression Anxiety and Stress Scale-21 is 21 items shortened version of the Depression Anxiety and Stress Scale which originally consist of 42 items. To respond to the DASS-21, participants are asked to reflect on their experiences during the previous week and assess how each statement applies to them. There are 21 items in this scale with four response options: 0 "Did not apply to me at all–Never", 1 "Applied to me to some degree, or some of the time–Sometimes", 2 "Applied to me to a considerable degree, or a good part of the time–Often" to 3 "Applied to me very much, or most of the time–Almost always". Scores from the three subscales in the DASS-21 naming DASS-21-Depression (DASS-21-D), DASS-21-Anxiety (DASS-21-A) and Stress (DASS-21-S) were then calculated to determine the severity of psychological distress. There are six items in Depression sub-dimension, eight items in the Anxiety sub-dimension and 7 items in the Stress sub-dimension, with score of which ranges from 0 to 18, 0 to 24, and 0 to 21 respectively. The DASS-21 has good reliability with Cronbach's Alpha value of 0.95 (Jiang et al., 2020).

3.9.2 Burnout

Developed by Maslach and Jackson (1991), The Maslach Burnout Inventory (MBI), integrates the Maslach Theory of Burnout consisting of 3-dimension: (a) emotional exhaustion; (b) depersonalisation; and (c) low personal accomplishment. The Maslach Burnout Theory-Health Services Survey (MBI-HSS) was designed to be used for surveys done under the healthcare sector to measure the burnout level of healthcare providers. The MBI-HSS comprises 22 human service makeshift items. In this study, through the usage of MBI-HSS, each item signifies an affirmation of healthcare professionals' preconceptions and

emotional responses about their profession and their patients. The instrument used a 7-point Likert-scale starting from never (0), few times a year or less (1), once a month or less (2), a few times per month (3), once per week (4), a few times per week (5), to every day (6). From the manual, MBI-HSS comprised of three sub-dimensions: (a) Emotional Exhaustion (EE) with nine items (1, 2, 3, 5, 6, 8, 13, 14, and 16), (b) Depersonalization (DP) with five items (5, 10, 11, 15, and 22), and lastly, Personal Accomplishment (PA) dimension, encompassed of eight items (4, 7, 9, 12, 17, 18, 19, and 21) which are reversed scored.. The scores for Emotional Exhaustion sub-dimension ranges from 0-54 while score for Depersonalization sub-dimension ranges from 0 to 30 and score for Personal Accomplishment sub-dimension ranges from 0-48. Low Personal Accomplishment (PA) score and high Emotional Exhaustion (EE) and/or Depersonalization (DP) score is linked with high burnout. This 3-factor scale has good reliability overall, with Cronbach's Alpha value 0.832 for the overall scale, 0.860 for (EE), 0.809 for (DP), and 0.791 for (PA) (Bošković, 2021).

3.9.3 Job Satisfaction

In 1967, Weiss et al. developed the short version of the MSQ - Minnesota Satisfaction Questionnaire. The MSQ has 20 items containing two subscales: intrinsic job satisfaction and extrinsic job satisfaction. Intrinsic satisfaction refers to working conditions and an individual's feelings about the nature of his job and obligations, whereas extrinsic satisfaction refers to environmental conditions and an individual's feelings regarding employment features outside of his working environment. Each item has a score of 1 to 5, which sums up to a score range of 20-100. MSQ is a self-report questionnaire developed to assess individuals' satisfaction with their job. The Cronbach's alphas for intrinsic, extrinsic and total satisfaction were 0.85, 0.71 and 0.88, respectively (Bagheri Hosseinabadi et al., 2018).

Chapter 4

Results

4.1 Introduction

This chapter illustrates the findings of this study, which were derived from numerous analyses. The demographic descriptive statistics are covered first in this chapter. The chapter begins with descriptive demographic data. Then, as part of the preliminary analysis, checks for each variable's normality assumption were conducted to ensure sample normality, followed by a normality test, histograms, Q-Q plots, and test for multicollinearity. Moreover, the association between the independent variables and dependent variables was also examined using Spearman correlation analysis, which tested the underlying mechanism that might have an impact on potential causal relationships.

4.2 Descriptive Statistics

Demographic Characteristics

The research sample's demographic data was shown in Table 4.1. The total number of Malaysian healthcare providers under the healthcare industry who participated in this study was 95 respondents, with female participants accounting for 64.6% (n=62), and male participants included were 35.4 % (n=34). The participants recruited were aged between 23 to 57 years old (M = 34.97, SD =7.74). However, the majority age recorded was 36 years old (n=9). The respondents enrolled in the study included different ethnic groups, and the majority were Malay (44.8%), followed by Indians (34.4 %), and Chinese (20.8%). All participants who participated were healthcare providers from the medical healthcare industry who worked during the COVID-19 Pandemic. Most of the respondents were doctors (29.2%),

nurses (33.3%), medical assistants (16.7%), pharmacist (11.5 %), lab technician (5.2%), and others such as medical students who did houseman ship and dentist (4.2%).

Table 4.1

Demographic Information of Study Sample (n = 96)

	n	%	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Gender						
Male	34	35.40				
Female	62	65.60				
Age			34.97	7.74	23	57
23 - 30	33	34.38				
31 - 40	42	43.75				
41 - 50	17	17.70				
51 - 60	4	4.17				
Race						
Malay	43	44.80				
Chinese	19	20.80				
Indian	33	34.40				
Profession						
Doctor	28	29.20				
Nurse	32	33.30				
Medical Assistant	16	16.70				
Pharmacist	11	11.50				
Lab Technician	5	5.20				
Others	4	4.20				

Note. n = number of cases; % = percentage; M = mean; SD = standard deviation; Min = minimum

value; Max = maximum value

4.3 Topic-Specific Characteristics

The respondents' frequency distribution for topic-specific variables, such as psychological distress, burnout, and job satisfaction, was shown in Table 4.2, 4.3, and 4.4, respectively. The classification of scores for the psychological distress variable was in accordance with the scale interpretation proposed by Lovibond, S. & Lovibond, P. (1996), in which, 39.60% of respondents (n = 38) had normal depression score, 14.60% respondents (n=14) had mild depression score, 26.00% respondents (n=25) had moderate depression score, 12.50% respondents (n=12) had severe depression score, and 7.30% respondents (n=7) had extremely severe depression score. Whereas 21.90% of respondents (n = 21) had normal anxiety score, 4.10 respondents (n=4) had mild anxiety score, 7.30% (n=7) had moderate and severe anxiety score respectively, and 59.40% (n=57) had extremely severe anxiety score. Meanwhile, 32.30% of respondents (n = 31) had normal stress score, 9.40% respondents (n=9) had mild stress score, 17.70% respondents (n=17) had moderate stress score, 20.80% respondents (n=20) had severe stress score, and 19.80% respondents (n=19) had extremely severe stress score.

Table 4.2

Descriptive Statistic for Psychological Distress

Variables	<i>n</i>	%	<i>M</i>	<i>S.D.</i>	Max	Min
Psychological Distress			27.35	16.38	56.00	.00
<i>Depression score</i>						

Normal (0-4)	38	39.60
Mild (5-6)	14	14.60
Moderate (7-10)	25	26.00
Severe (11-13)	12	12.50
Extremely severe ≥ 14	7	7.30
<i>Anxiety score</i>		
Normal (0-3)	21	21.90
Mild (4-5)	4	4.10
Moderate (6-7)	7	7.3
Severe (8-9)	7	7.3
Extremely Severe (≥ 10)	57	59.4
<i>Stress Score</i>		
Normal (0-7)	31	32.30
Mild (8-9)	9	9.40
Moderate (10-12)	17	17.7
Severe (13-16)	20	20.8
Extremely Severe (≥ 17)	19	19.80

Note: n = number of cases; Min = minimum value; Max = maximum value; M = Mean; SD = standard deviation

For the variable of burnout (Table 4.3), 25.00% of respondents ($n = 24$) faced a low level of emotional exhaustion, 7.30% of respondents ($n=7$) faced a moderate level of emotional exhaustion and 67.70% of respondents ($n=65$) faced a high level of emotional exhaustion. 41.70% of respondents ($n = 40$) faced low level of depersonalization, 30.20% of respondents ($n=29$) faced a moderate level of depersonalization and 28.10% of respondents ($n=27$) faced a high level of depersonalization. 86.50% of respondents ($n = 83$) faced a low level of personal accomplishment 11.40% of respondents ($n=11$) faced a moderate level of personal accomplishment and 2.10% of respondents ($n=2$) faced a high level of personal accomplishment.

Table 4.3

Descriptive Statistic for Burnout

Variables	<i>n</i>	%	<i>M</i>	<i>S.D.</i>	Max	Min
Burnout			66.21	26.42	116.00	11.00
<i>Emotional Exhaustion</i>						
Low (≤ 17)	24	25.00				
Moderate (18-29)	7	7.30				
High (≥ 30)	65	67.70				
<i>Depersonalization</i>						
Low (≤ 5)	40	41.70				
Moderate (6-11)	29	30.20				
High (≥ 12)	27	28.10				
<i>Personal Accomplishment</i>						
Low (≤ 33)	83	86.50				
Moderate (34-39)	11	11.40				

Note: *n* = number of cases; Min = minimum value; Max = maximum value; *M* = Mean; *SD* = standard deviation

Table 4.4 shows the descriptive statistics for job satisfaction, where 90.60% of respondents (*n* = 86) experienced moderate level of job satisfaction as their scores were between 26 to 74, whereas 9.40% of them (*n* = 10) experienced high level of job satisfaction as their scores were 75 and above altogether.

Table 4.4

Descriptive Statistic for Job Satisfaction

Variables	<i>n</i>	%	<i>M</i>	<i>S.D.</i>	Max	Min
Job Satisfaction			52.62	14.63	92.00	32.00
Moderate (26-74)	86	90.60				
High (≥ 75)	10	9.40				

Note: *n* = number of cases; Min = minimum value; Max = maximum value; *M* = Mean; *SD*

4.4 Data Diagnostic and Missing Data

Frequency and Percentage of Missing Data

The survey was distributed to the public via social media from July 8 2022, till August 1 2022. There were 100 responses in total, according to data from Qualtrics. Four responses in total were eliminated after empty and incomplete responses were filtered out (Smelser & Baltes, 2001). This was possible because even after the data removal, the minimum sample size, which was 70, as determined by the G*Power software, was still attained. Thus, a total of 96 data sets were being analyzed for further study.

4.5 Assumption of Normality

To test the assumption of normality, this study employs five normality indicators, including the histogram and Q-Q plot for visual display and skewness, kurtosis, and the Kolmogorov-Smirnov test for numerical illustration.

Histogram

The histograms of all variables were found to be skewed indicating non-normal distribution. The histogram for Psychological Distress is skewed to the right indicating a positively skewed distribution. Burnout's histogram displays a normally distributed distribution since all graphs appeared to be nearly symmetrical when divided in half. While the Job Satisfaction found to be skewed to the left, indicating a negatively skewed data distribution. Overall, two out of three variable data distributions are found to be skewed indicating non-normal data distribution (refer to Appendix C).

P-P plots

The P-P plots show that the normality based on P-P plots was satisfactory for all variables because it did not deviate significantly from the diagonal lines, indicating good

normality, where most of the observed scores fall close to and on the diagonal line. (see Appendix D).

Skewness and Kurtosis

Table 4.5 demonstrated the skewness value of psychological distress, burnout and job satisfaction are -.260, -.173 and .893, respectively. Thus, psychological distress and burnout are negatively skewed, job satisfaction is positively skewed. Furthermore, the kurtosis values for psychological distress are -1.078, burnout is -.956, and job satisfaction .134. Therefore, all the variables did not violate the normality assumption as it was within the bounds of acceptable range of the skewness and kurtosis value which is ± 2 (Gravetter & Wallnau, 2014). Therefore, it can be said that all variables were distributed normally (Field, 2009).

Table 4.5

Skewness and Kurtosis of Variables

Variables	Skewness	Kurtosis
Psychological Distress	-.260	-1.078
Burnout	-.173	-.956
Job Satisfaction	.893	.134

Kolmogorov-Smirnov(K-S) Test

Tabulation 4.6 exhibits the normality for the respective variables, variable burnout, $D(96) = .065$, $p = .200$, was significantly normal, which means the sample distribution did not deviate significantly from the normal distribution since there was no difference between sample normality and population normality. However, the variable psychological distress, $D(96) = .116$, $p = .003$, and job satisfaction, $D(96) = .160$, $p = .000$ were significantly non-normal as the value is larger than the alpha value causing a violation (Karson, 1968). Due to significant results, this suggests that these variables had violated the K-S test's normality

assumptions, demonstrating a discrepancy between sample normality and population normality. One of the elements that influences the distribution may be insufficient data discrimination. This is since measurement round-off errors or low-resolution measurement equipment can make truly continuous and normally distributed data appear discrete and out of the ordinary. As a result, using more precise measurements or gathering more data can help overcome having too few values. Hence, it suggests that the sample distributions are significantly diverse from the normal distribution.

Table 4.6

Kolmogorov-Smirnov's Normality Test

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Psychological Distress	.116	96	.003	.943	96	.000
Total Burnout	.065	96	.200*	.970	96	.028
Total Job Satisfaction	.160	96	.000	.922	96	.000

Conclusion of Assumption of Normality

Skewness, kurtosis, and PP-plot, three out of five normality indicators, were satisfied by the variables representing psychological distress and job satisfaction. All five indicators met the requirements for the burnout variable as well. All variables satisfied more than a third of the normality indicators, so the distribution of data was normal.

4.6 Defining and Processing of Statistical Outliers

SPSS software was used to detect statistical outliers based on boxplots generated from normality tests (see Appendix E). No outliers were identified across all variables. In short, there were 96 valid data used in the statistical analysis

4.7 Assumption of Multiple Linear Regression

In this Multiple Linear Regression, four assumptions were tested: multicollinearity, independence of errors, multivariate outliers, influential cases, along with residual normality, residual linearity, and homoscedasticity.

Test on Multicollinearity

Table 4.7 displayed the tolerance and Variance Inflation Factor (VIF) values for the two predictors, psychological distress, and burnout. The tolerance and VIF values are used to test the multicollinearity assumption. According to Hair et al. (2010) and Pallant (2010), the tolerance cut-off threshold is $\leq .10$ while the VIF cut-off threshold is ≥ 10 . Based on the table, the tolerance value of psychological distress and burnout is .539, both $\geq .10$, and the VIF value of psychological distress and burnout is 1.857, both < 10 , thus there is no violation for the assumption of multicollinearity.

Table 4.7

Multicollinearity Test

Variables	Tolerance	VIF
(Constant)		
Psychological Distress	.539	1.857
Burnout	.539	1.857

Dependent Variable: Job Satisfaction

Test on Independence of Errors

The test of independence error must be met in order to demonstrate a correlation between the residuals. In our study, the assumption of independence error was tested using the Durbin-Watson test. According to Durbin-Watson (1951), the acceptable range of the value of Durbin-Watson is within 1 and 3, and the value that is closer to 2 would be more congruent to the assumption (Field, 2009; Melchiorri et al., 2022). Due to the fact that the

Durbin-Watson value for the variables is 1.649, it can be deduced that the assumption of independent errors was not breached (Table 4.8).

Table 4.8

Independence of Error Test

Model	Durbin-Watson
1	1.649

Note. Dependent Variable = Job Satisfaction. Predictors = Psychological Distress, and Burnout

Test on Normality and Linearity of Residuals and Homoscedasticity

Appendix F portrays the residual plot, which is depicted in the scatterplot, had a cone-like shape, indicating the presence of heteroskedasticity. Regressions with heteroskedasticity exhibit a pattern in which the variance of the residuals rises as the fitted values do. Thus, heteroskedasticity is a sign that the variance of the observed residuals is not equal.

Test on Multivariate Outliers and Influential Cases

The casewise diagnostic for locating potential outliers within the sample consisting of 96 participants was laid out in Table 4.7 for viewing. It was discovered that there were four cases (items 39, 64, 65, and 97) that exceeded ± 2 standard deviations.

Appendix H illustrates the case overviews for the three residual statistical data in determining the possible outliers. The case would be eliminated if two out of three of the residual statistics were violated. According to Cook and Weisberg (1982), the cut-off point of Mahalanobis distance is 15 and the Cook's distance's cut-off point is 1. These 4 cases show no violation in Cook's distance as all the values are smaller than 1. Besides, these 4 cases also show no violation in Mahalanobis distance as the values fall within value 15. Lastly, according to Hoaglin and Welsch (1978), the value of leverage of these 4 cases are

smaller than two times of the leverage which is $0.0625, ((2+1)/95) \times 2 = 0.0632$. In short, there is no violation in these three assumptions and these 4 cases will not be taken out from the data. Thus, 96 data were used in the subsequent statistical assessment.

Conclusion on Assumption of Multiple Linear Regression

There was neither multicollinearity, dependence of error, or exclusion of possible outliers. The scatter plot, on the other hand, revealed heteroscedasticity, which contradicted the residuals' homoscedasticity and linearity. Because three out of four tests were satisfied, it can be deduced that the Multiple Linear Regression assumption tests were satisfactory.

4.8 Data Transformation

The Maslach Burnout Theory-Health Services Survey (MBI-HSS) was the only one of the three instruments used in this study to have eight negative items (items 4, 7, 9, 12, 17, 18, 19, and 21). Accordingly, the results of these negative items were reversed based on a seven-point Likert scale, which ranged from never (0), few times a year or less (1), once a month or less (2), a few times per month (3), once per week (4), a few times per week (5), to every day (6). To give an example, the response to 0 was reversed to 6, and the response to 1 was reversed to 5. Following the completion of these data transformations, the researchers went on to compute the total score in preparation for further statistical analysis.

4.9 Statistical Analysis

Spearman Correlation Analysis

Spearman correlation analysis was used to examine the association between psychological distress and job satisfaction, and burnout and job satisfaction (refer to Table 4.9). It is generally accepted that correlations with a value of less than 0.3 are weak, while correlations with a value ranging from 0.3 to 0.7 are regarded as moderate (Cronk, 2017). It is

intended that the findings of this section be presented in accordance with the research questions and hypotheses.

RQ1: Is psychological distress associated with job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia?

H1: Psychological distress is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

The Spearman rho correlation coefficient between psychological distress and job satisfaction was calculated. A weak negative correlation was discovered ($\rho(94) = -.171, p.01$), indicating that the relationship between the two variables is weak. As there is a negative correlation between the two variables, however, the results support hypothesis 1.

RQ2: Is burnout associated with job satisfaction among medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia?

H2: Burnout is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

In order to determine how burnout and job satisfaction are related, the Spearman rho coefficient was calculated. The two variables had a moderately negative correlation ($\rho(94) = -.390, p.01$), indicating a moderate relationship. The findings therefore confirm H1.

Table 4.9

Correlations between variables

Variable	1	2	3
1. Psychological Distress	1	.629**	-.171
2. Burnout	.629**	1	-
3. Job Satisfaction	-.171	-.319**	1

Note. Correlation is significant at the 0.01 level (2-tailed).

In summary, our findings revealed that both hypotheses were supported by the findings. Despite the significance of Spearman Correlation, the strength of the association of psychological distress and burnout are weak and moderate respectively. As a result, it was discovered that psychological distress and burnout are significant predictors of job satisfaction when considered collectively rather than individually.

Chapter 5

Discussion and Conclusion

Discussion

On the basis of the findings from the previous chapter, this chapter discusses three aspects of statistical analysis. The first part will be about the constructive discussion of findings, the second part discusses the theoretical and practical implications of the study, and the third part focuses on the limitations and recommendations for future research. As previously mentioned, the purpose of this study is to determine whether Psychological Distress and Burnout is associated with Job Satisfaction among the medical healthcare providers in the healthcare industry during the COVID-19 pandemic in Malaysia. Based on the statistical analyses, H_1 and H_2 were supported.

Psychological Distress and Job Satisfaction

H₁: Psychological distress is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

The H_1 , hypothesised there is negative association between Psychological Distress and Job Satisfaction among the healthcare providers during the COVID-19 pandemic in Malaysia. The present findings were in line with past studies indicating that psychological distress has a negative correlation with job satisfaction. Hence, it supports the first hypothesis which states that psychological distress is predicted to be negatively associated with job satisfaction among healthcare providers during the COVID-19 Pandemic in Malaysia. This finding is consistent with past research that demonstrated a negative relationship between job

satisfaction and psychological distress among healthcare workers caused by anxiety over COVID-19 (Labrague, 2020).

In addition, according to Moyo et al. (2022), their study has discovered that the healthcare workers' perceived COVID-19 risk increases their intention to quit, disengagement, burnout, and lower productivity as the majority of workers stress themselves with the worry about catching this deadly disease, which can cause serious health issues or even death (Pappa et al., 2020). This in turn lowers their job satisfaction along with resulting in poor work performance given the employment conditions during the pandemic. Furthermore, Labrague (2020) stated that fear linked to the coronavirus may impair nurses' ability to execute their jobs as a psychological response to a potentially dangerous condition or stimulus, which could result in higher levels of job dissatisfaction and more intentions to leave the field and the company. Thus, these high levels of anxiety and fear of getting infected by the coronavirus among the healthcare workers puts them at risk for serious psychological distress issues that lower their job satisfaction. On the flip side, the data that were acquired by the other researchers did not coincide with the findings of the earlier studies, as it was noted that the Covid-19 fear did not significantly predict anxiety and depression (Subhas et al., 2021). These findings contradict the previous research.

Besides that, numerous variables, including inadequate pay (Jasper et al., 2012), a heavy workload and unfavourable working conditions (Haslinda & Tyng, 2016), and a lack of nursing personnel (Nasr -Esfahani et al., 2017), have been said to contribute to the high degree of psychological distress among healthcare providers. The higher patient load for acute patient care, along with testing, vaccination, and providing mental health treatment, has increased the need for nurses during this time. In spite of this, nurses who have been working

during this epidemic have reported a wide range of negative consequences on their physical, mental, and social health (Lopez et al., 2021). This is corroborated by research showing that working longer hours and handling heavier workloads have had a major negative impact on nurses' mental health (Bao et al., 2020). Thus, during the pandemic, a shortfall in the number of healthcare workers and a heavy workload may both be variables that contribute to increased physiological distress, which in turn leads to decreased job satisfaction.

Burnout and Job Satisfaction

H₂: Burnout is predicted to be negatively associated with job satisfaction among medical healthcare providers during the COVID-19 Pandemic in Malaysia.

The *H₂*, hypothesised there is negative association between Burnout and Job Satisfaction among the healthcare providers during the COVID-19 pandemic in Malaysia. A study by Tarcan et al. (2016) stated that there is a significant correlation between job satisfaction and burnout where the level of burnout decreases when the level of job satisfaction increases, thus, it is consistent with the second hypothesis which states that burnout is predicted to be negatively associated with job satisfaction among healthcare providers during Covid-19 pandemic in Malaysia. As stated in the past studies, there is a link between burnout and unpleasant working environments, which can possibly lead to lack of commitment and motivation, displaying bad attitudes, disengagement, job dissatisfaction, and poor work performance (Seidler et al., 2014).

Gokcen et al. (2013) explained that emotional exhaustion (a dimension of burnout) is a major predictor of overall satisfaction, as emotional exhaustion and lack of social support are key indicators of intrinsic job satisfaction, and the key indicators of extrinsic job

satisfaction are emotional exhaustion and personal achievement. Thus, their research implies that emotional exhaustion is a strong predictor of job satisfaction. Furthermore, past studies revealed that the level of burnout was found to be higher among the healthcare workers as they work for longer hours being engaged in screening or managing patients with Covid-19, hence, their job satisfaction is affected negatively as burnout is linked to lower job satisfaction (Norhanaza et al., 2021; Roslan et al., 2021). In addition, a study by Kassim et al. (2021) stated that the nurses who experience burnout tend to manifest strong turnover intention due to the effects of workplace pressure, excessive workloads at work, and work intensification. Moreover, individuals who deal with emotionally charged situations are much more likely to suffer from burnout as the emotional burden of losing patience and aiding bereaved family members can be daunting for nurses who deal with death on a regular basis (Labrague et al., 2018).

According to Wang et al. (2020), their study explained that because job satisfaction is a significant motivating factor in predicting an employee's turnover intention behavior, there is a negative correlation between the two. A welcoming workplace environment encourages job satisfaction and lowers the likelihood of employee turnover. Another study by Wang et al. (2020) stated that the healthcare workers may have high turnover intentions when they are suffering from severe burnout and low job satisfaction. In addition to having adverse direct impacts on burnout and turnover intention, job satisfaction also can have a negative indirect impact on turnover intention through burnout as a mediator. Moreover, high levels of stress that invokes the risk of burnout is increased by working conditions including highly technological workplaces, treating extremely ill patients on a regular basis, night shifts, disagreements with patients or other employees, and relationships with their supervisors.

Therefore, stress, depression, and anxiety emotions contribute to burnout, which lowers the level of job satisfaction, raises absenteeism, and increases burnout intention among healthcare workers (Vermeir et al., 2018).

Implications

Theoretical Implication

This study attempted to bridge a knowledge gap about the role of psychological distress and burnout as predictors of job satisfaction among the healthcare workers during the Covid-19 pandemic in Malaysia. This study employed a theoretical framework to explain the effects of psychological distress and burnout that impacts job satisfaction. On the basis of the findings, this study has made several theoretical contributions by using the Cognitive theory and Maslach Burnout theory. First, the findings highlighted that a person's dysfunctional thinking causes them to experience severe emotions which in turn, result in having a pessimistic view of themselves and their surroundings. Pessimists are more stressed and have fewer coping skills as pessimism is also associated with higher psychological distress levels and a stronger tendency to look at past experiences with more negativity, which in general, lowers their life satisfaction. Second, this study highlighted the important implications on how burnout comprises three dimensions which are emotional exhaustion, depersonalization, and reduced personal accomplishment that leads to failure in perceiving one's own performance and competency and work, which may affect job satisfaction. These findings are important because they help the people working in the healthcare industry to understand what leads them to have lower job satisfaction levels.

Although this study has provided the common dimensions of psychological distress and burnout that affects job satisfaction, it is not sufficient to get insight into the factors that impact job satisfaction. Thus, another alternative for future researchers to pursue is to employ a different theoretical approach that addresses the elements that influence job satisfaction more broadly.

Practical Implication

The findings obtained from this study can be utilized to raise awareness as a potential strategy in boosting the mental health of healthcare providers by lowering stress and burnout in the future. For example, promoting mental health interventions for healthcare workers might include a part on gathering employee feedback to better understand their perspectives and improve mental health awareness. This has the potential to increase the efficacy of such programs in lowering the prevalence of job dissatisfaction in healthcare organizations. Besides, the information given regarding burnout, psychological distress and job satisfaction in this study can be helpful for the healthcare workers to work on improving their professional identity such as their professional self-concept, attitudes, beliefs, experiences, motives and values. Healthcare professionals will be able improve career practice of medical services, expand skill learning, and focus more on transmission of information in hospital organizations while the hospital administrators and policymakers can implement strategies like frequent training sessions to help employees develop a healthy professional mindset and enhance their job satisfaction as well as their workplace engagement.

Limitations and Recommendations

Several limitations could have influenced the findings in this study. Firstly, the research is conducted within the government hospitals in Malaysia, thus, it may affect the generalizability of the study's results. Therefore, the future researchers may focus on conducting the research in private hospitals to compare and understand the level of job satisfaction among the healthcare workers in both the government and private hospitals.

Second, the majority of the respondents are females (64.6%), hence the results might be biased and conclude as the female healthcare workers experience higher levels of psychological distress, burnout and job dissatisfaction compared to male healthcare workers. Therefore, it is recommended for future researchers to gather an equal number of male and female respondents to get more impartial results.

The next limitation is response bias, where respondents gave inaccurate answers to survey questions, which may have had a substantial impact on the outcomes and overestimated the level of job satisfaction among healthcare workers as a whole. In order to encourage respondents to provide genuine responses, future researchers may concentrate on employing open-ended questions in the survey.

Lastly, this survey is only available in English. It may present a problem for respondents who are not adequately fluent in that language, causing them to misinterpret the context of survey questions. As a result, future researchers should ensure that the survey is available in multiple languages, such as "Bahasa Melayu," "Mandarin," or "Tamil," rather than just English, to accommodate to Malaysia's multicultural population and make it possible for each individual to comprehend and respond to the survey questions impartially.

Conclusion

In conclusion, the present study has contributed valuable knowledge regarding the function of psychological distress and burnout as predictors of job satisfaction among Malaysian healthcare providers during the COVID-19 pandemic. Psychological distress and burnout have been demonstrated to have a negative correlation with job satisfaction as the healthcare workers' perceived Covid-19 risk increases their anxiety, burnout, disengagement and mental exhaustion, which in turn leads to lower levels of job satisfaction. Therefore, the findings of this study may be useful in raising awareness as a potential method for reducing the prevalence of job dissatisfaction in healthcare organizations. However, there are still other factors that could influence the level of job satisfaction among healthcare providers; hence, the other critical aspects that influence job satisfaction more broadly should be researched further.

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Appendices

Appendix A: Sample Size Calculation

A. Effect size and G*Power

i. Psychological Distress and Job Satisfaction (Feng et al., 2018)

	Mean	SD	1	2	3	4
1. Self-esteem	2.88	0.34	1			
2. Perceived social support	5.26	0.97	0.51**	1		
3. Job satisfaction	2.91	0.83	0.23**	0.14**	1	
4. Psychological distress	23.90	5.85	-0.38**	-0.36**	-0.36**	1

** $p < .01$.

$$\therefore R = -0.36$$

$$f^2 = \frac{R^2}{1-R^2} = \frac{(-0.36)^2}{1-(-0.36)^2} = 0.149$$

ii. Burnout and Job Satisfaction (Scanlan & Still, 2019)

Table 1. Descriptive statistics and correlations of job stress, perceived social support, job satisfaction, and job burnout.

Variable	Mean	SD	1	2	3	4	5	6
1 Emotional exhaustion	2.59	1.29	1					
2 Cynicism	2.10	1.28	0.66**	1				
3 Professional inefficacy	3.87	1.26	0.01	-0.13**	1			
4 Job stress	2.71	0.63	0.60**	0.47**	-0.10**	1		
5 Perceived social support	63.72	11.44	-0.12**	-0.23**	0.31**	-0.21**	1	
6 Job satisfaction	73.42	10.37	-0.45**	-0.57**	0.22**	-0.52**	0.31**	1

N = 1464; ** $P < 0.01$.

$$\therefore R = -0.45$$

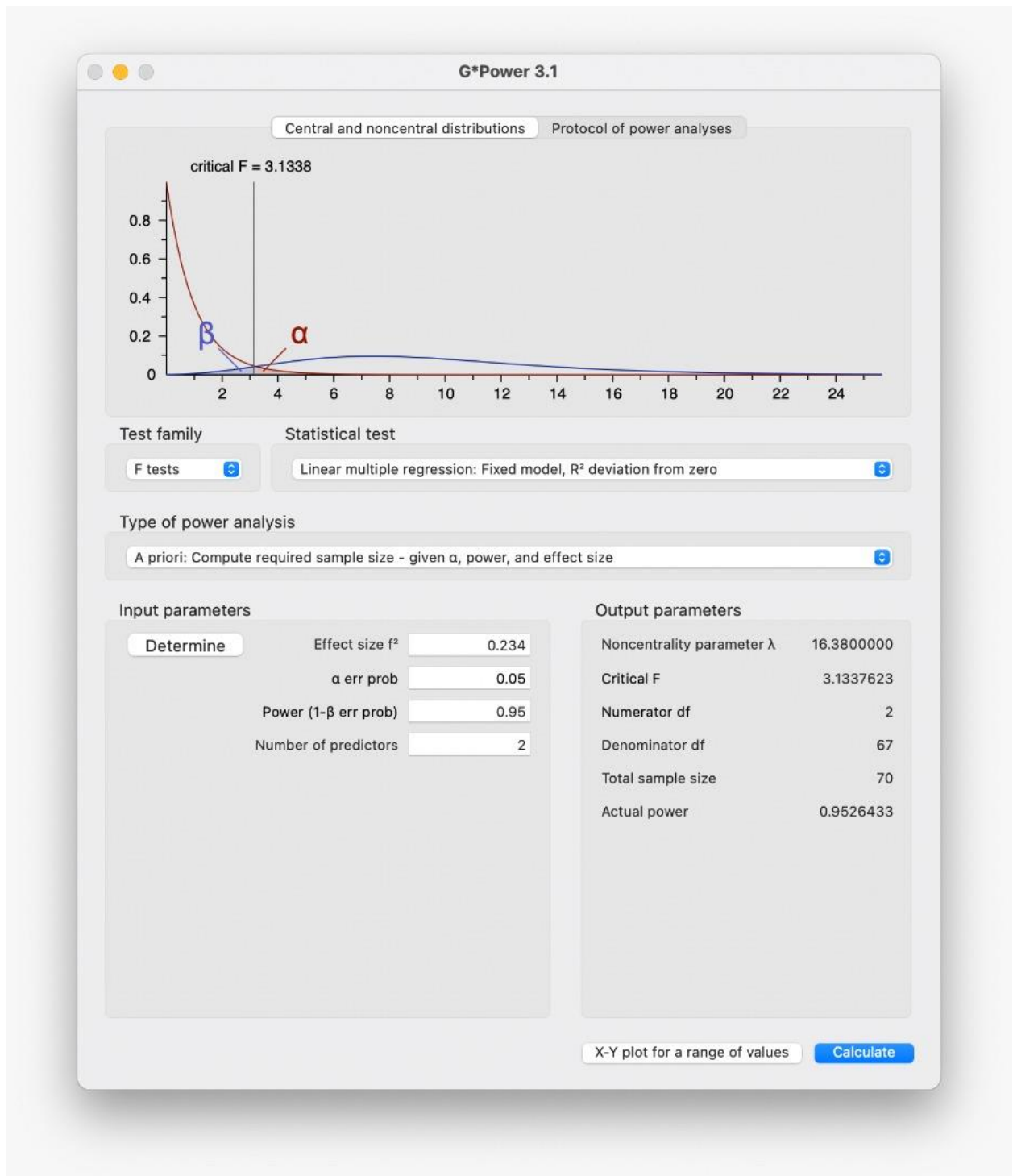
$$f^2 = \frac{R^2}{1-R^2} = \frac{(-0.45)^2}{1-(0.45)^2} = 0.254$$

$$\therefore r = -0.57$$

$$f^2 = \frac{R^2}{1-R^2} = \frac{(-0.57)^2}{1-(0.57)^2} = 0.481$$

$$\therefore r = 0.22$$

$$f^2 = \frac{R^2}{1-R^2} = \frac{(-0.22)^2}{1-(0.22)^2} = 0.051$$



Appendix B: Online Survey Form

Block 1



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DU012(A)

UAPZ 3013 Final Year Project
Department of Psychology and Counselling
Faculty of Arts and Social Science
Universiti Tunku Abdul Rahman

We are final year undergraduate students of Bachelor of Social Science (HONS) Psychology from University Tunku Abdul Rahman (Kampar Campus) conducting our final year project.

Title of the study:

The Association of Psychological Distress and Burnout on Job Satisfaction among Medical Healthcare Providers in The Healthcare Industry During The Pandemic COVID-19 in Malaysia.

We would like to invite you to participate in this research study. However, before you decide to do so, it is essential for you to understand why the research is being done and what it will involve. Kindly take your time to read and go through the following information carefully. You are welcome to ask questions if anything you read is unclear or hope to clarify more information. Do note that your decision to participate is voluntary and have the right to refuse.

What is the purpose of this study?

This research study aims to discover whether psychological distress and burnout is associated with job satisfaction of medical healthcare providers in the healthcare industry during the pandemic COVID-19 in Malaysia. Other than that, this research is being undertaken as part of our course structure to complete our degree requirement.

What will taking part involve?

You will be required to complete an online survey which will take approximately 15 minutes. By completing three sections related to psychological distress, burnout, and job satisfaction.

Why have you been invited to take part?

You are invited to participate in this survey as you fulfil all the criteria a) Malaysian b) Working in the healthcare industry

Do you have to take part?

Kindly take note that participation in this research is voluntary and participants have the right to withdraw at any time without giving any explanation.

What are the possible disadvantages and risks of taking part?

Participating in the research study will not put you at any risk, causing you any disadvantages, or develop any feeling of discomfort.

How will information you provide be recorded, stored, and protected?

All of the information we gather throughout the study will remain private and confidential. Any information you provide will be kept in secure format secured by passwords and other relevant security procedures. Data gathered may be shared in an anonymize form with the research team and any third parties for reuse.

This research will be conducted in accordance with the UTAR's Research Ethics and Code of Conduct Researchers will seek ethical approval to conduct the study from the UTAR Scientific and Research Committee before distributing the survey.

What will happen to the results of the study?

Research results will be published. You will not be able to be identified in any sort of report or publication and your personal data will be untraceable. Kindly inform us to include you in our

circulation list if you would like to have a copy of any reports arising from the study.

Who should you contact for further information?

This research study is supervised by Dr Nurul Iman Binti Abdul Jalil. You may contact Dr. Iman via iman@utar.edu.my if you have any inquiries.

Please feel free to contact us if you have any inquiries.

Adrianna A/P Silvarajah (adrianna1015@utar.my)

Loochana A/P Krishna Rao (loochu26@utar.my)

Visshan A/L Miyanathan (visshan.2499@utar.my)

Agreement of Participation

- ☐ I agree to participate in this research study.
- ☐ I disagree to participate in this research study.

Block 2**PERSONAL DATA PROTECTION NOTICE**

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

1. Personal data refers to any information which may directly or indirectly identify a person which could include sensitive personal data and expression of opinion. Among others it includes:

- a) Name
- b) Identity card
- c) Place of Birth
- d) Address
- e) Education History
- f) Employment History

- g) Medical History
- h) Blood type
- i) Race
- j) Religion
- k) Photo
- l) Personal Information and Associated Research Data

2. The purposes for which your personal data may be used are inclusive but not limited to:

- a) For assessment of any application to UTAR
- b) For processing any benefits and services
- c) For communication purposes
- d) For advertorial and news
- e) For general administration and record purposes
- f) For enhancing the value of education
- g) For educational and related purposes consequential to UTAR
- h) For replying any responds to complaints and enquiries
- i) For the purpose of our corporate governance
- j) For the purposes of conducting research/ collaboration

3. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

4. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

5. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

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Default Question Block

What is your profession in the healthcare industry?

- ☐ Doctor
- ☐ Nurse
- ☐ Medical Assistant
- ☐ Pharmacist
- ☐ Lab Technician
- ☐ Others (Please Specify):

Age

Gender

- ☐ Male
- ☐ Female

Race:

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Others (Please Specify):

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Default Question Block

What is your profession in the healthcare industry?

- ☐ Doctor
- ☐ Nurse
- ☐ Medical Assistant
- ☐ Pharmacist
- ☐ Lab Technician
- ☐ Others (Please Specify):

Age

Gender

- ☐ Male
- ☐ Female

Race:

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Others (Please Specify):

Default Question Block

What is your profession in the healthcare industry?

- ☐ Doctor
- ☐ Nurse
- ☐ Medical Assistant
- ☐ Pharmacist
- ☐ Lab Technician
- ☐ Others (Please Specify):

Age

Gender

- ☐ Male
- ☐ Female

Race:

- ☐ Malay
- ☐ Chinese
- ☐ Indian
- ☐ Others (Please Specify):

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Religion

- ☐ Muslim
☐ Buddhist
☐ Hindu
☐ Christian
☐ Others (Please Specify):

Part B

Psychological distress: The emotional state that one experiences when dealing with upsetting, frustrating, or harmful situations.

Instruction: Please read each statement and select a number 0, 1, 2 or 3 which indicates how much the statement applied to you **during the peak season of Covid-19 Pandemic**.

There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0. 0 Did not apply to me at all
1. 1 Applied to me to some degree, or some of the time
2. 2 Applied to me to a considerable degree or a good part of time
3. 3 Applied to me very much or most of the time

	0	1	2	3
1. I found it hard to wind down.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I was aware of dryness of my mouth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I couldn't seem to experience any positive feeling at all.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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5. I found it difficult to work up the initiative to do things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I tended to over-react to situations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I experienced trembling (e.g. in the hands).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I felt that I was using a lot of nervous energy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I was worried about situations in which I might panic and make a fool of myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I felt that I had nothing to look forward to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I found myself getting agitated.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I found it difficult to relax.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I felt down-hearted and blue.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I was intolerant of anything that kept me from getting on with what I was doing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I felt I was close to panic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. I was unable to become enthusiastic about anything.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. I felt I wasn't worth much as a person.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I felt that I was rather touchy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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19. I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat).

☐☐☐☐

20. I felt scared without any good reason.

☐☐☐☐

21. I felt that life was meaningless.

☐☐☐☐

Part C

Burnout: Exhaustion caused by physical, emotional, or mental exhaustion, accompanied by a lack of motivation, poor performance, and negative attitudes toward oneself and others.

Instructions: On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job **during the peak season of Covid-19 Pandemic**. If you have never had this feeling, select the **Never** option. If you have had this feeling, indicate how often you feel it by selecting the option that best describes how frequently you feel that way.

The phrases describing the frequency are:

Never

A few times a year or less

Once a month or less

A few times a month

Once a week

A few times a week

Every day

	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day
1. I feel emotionally drained from my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I feel used up at the end of the workday.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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3. I feel fatigued when I get up in the morning and have to face another day on the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I can easily understand how my recipients feel about things.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I feel I treat some recipients as if they were impersonal objects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Working with people all day is really a strain for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I deal very effectively with the problems of my recipients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I feel burned out from my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I feel I'm positively influencing other people's lives through my work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I've become more callous toward people since I took this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I worry that this job is hardening me emotionally.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I feel very energetic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I feel frustrated by my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I feel I'm working too hard on my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I don't really care what happens to some recipients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Working with people directly puts too much stress on me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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17. I can easily create a relaxed atmosphere with my recipients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I feel exhilarated after working closely with my recipients.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I have accomplished many worthwhile things in this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I feel like I'm at the end of my rope.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. In my work, I deal with emotional problems very calmly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. I feel recipients blame me for some of their problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Part D

Job Satisfaction: Refers to how pleased, comfortable, or satisfied an individual is with their job.

Instruction: Ask yourself, "How satisfied am I with this aspect of my job?" **during the peak season of Covid-19 Pandemic.**

5 = Extremely Satisfied
 4 = Very Satisfied
 3 = Satisfied
 2 = Somewhat Satisfied
 1 = Not Satisfied

	Not Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied	Extremely satisfied
1. Being able to keep busy all the time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The chance to work alone on the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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3. The chance to do different things from time to time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The chance to be "somebody" in the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The way my boss handles his/her workers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The competence of my supervisor in making decisions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Being able to do things that don't go against my conscience.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The way my job provides for steady employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. The chance to do things for other people.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. The chance to tell people what to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. The chance to do something that makes use of my abilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. The way company policies are put into practice.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. My pay and the amount of work I do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. The chances for advancement on this job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. The freedom to use my own judgment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. The chance to try my own methods of doing the job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. The working conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Qualtrics Survey Software

12/08/2022, 7:46 PM

18. The way my co-workers get along with each other.

☐☐☐☐☐

19. The praise I get for doing a good job.

☐☐☐☐☐

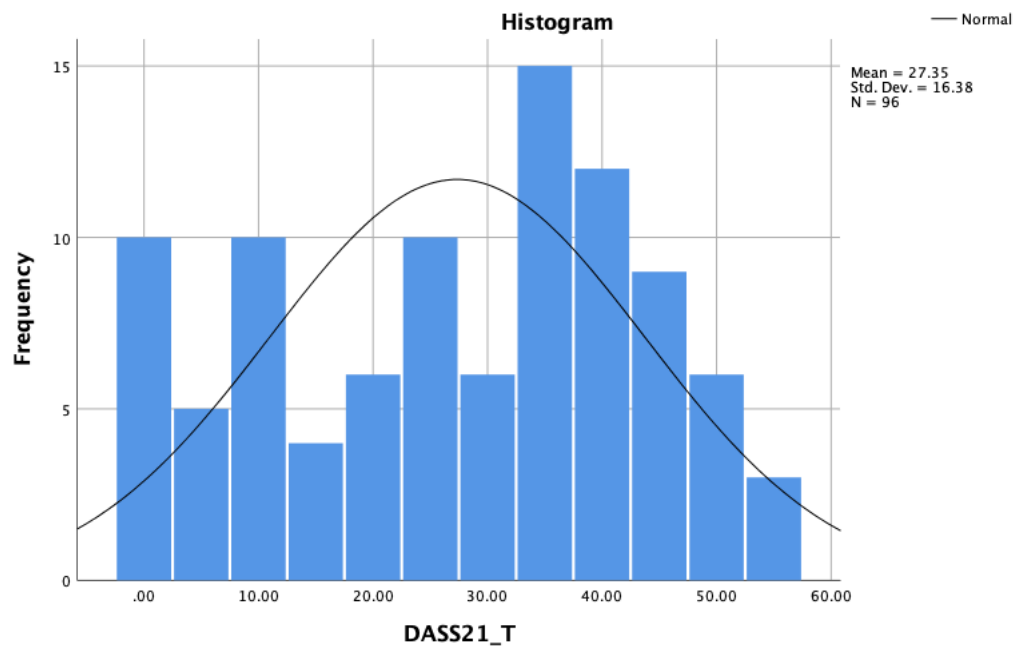
20. The feeling of accomplishment I get from the job.

☐☐☐☐☐

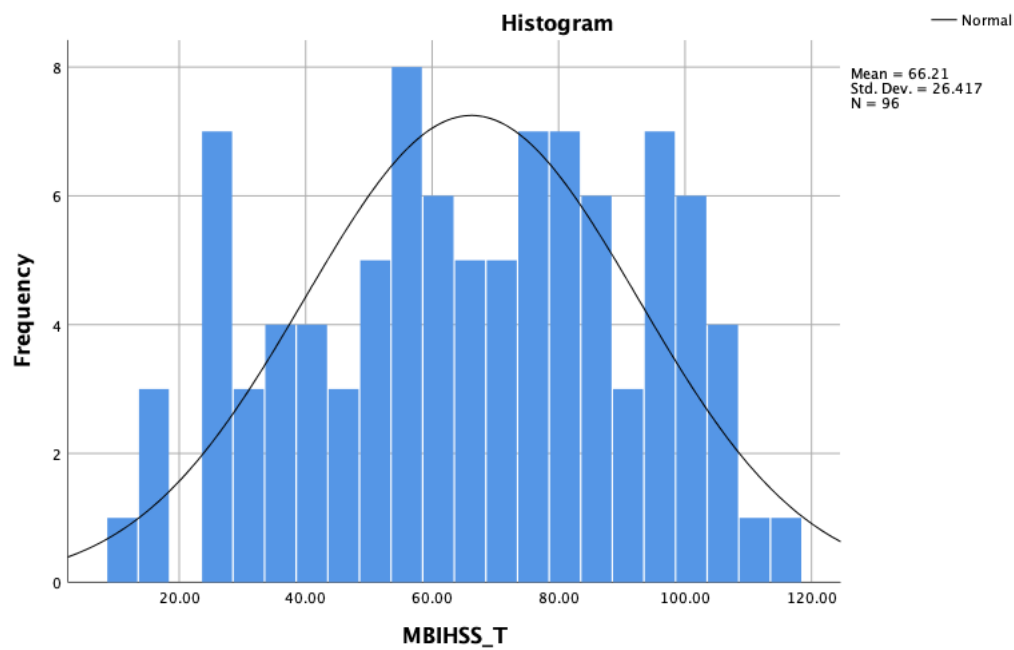
Powered by Qualtrics

Appendix C: Histogram

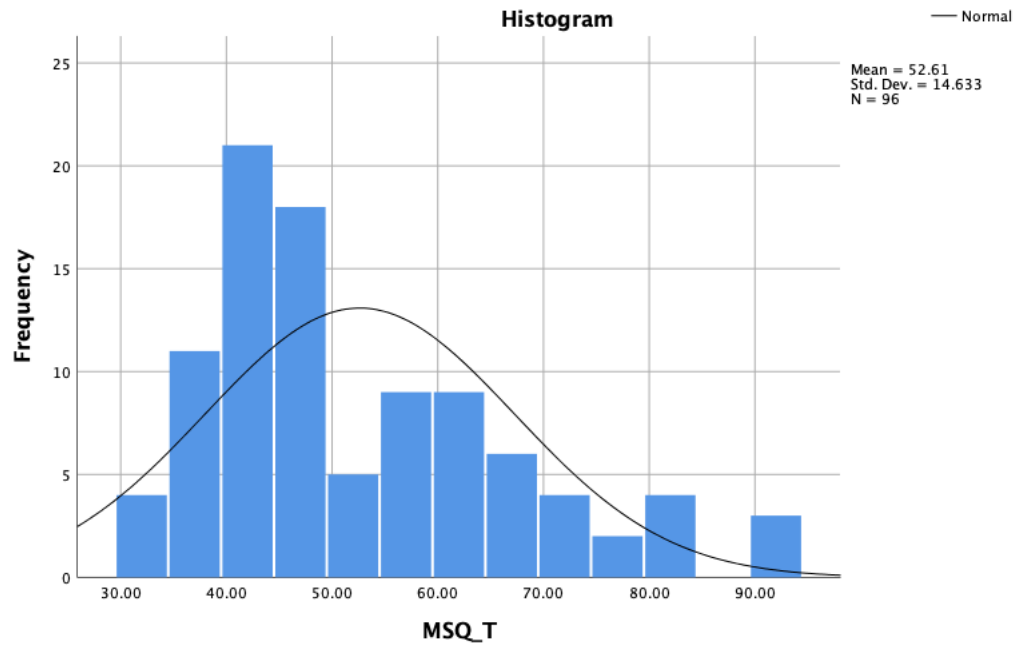
Psychological Distress

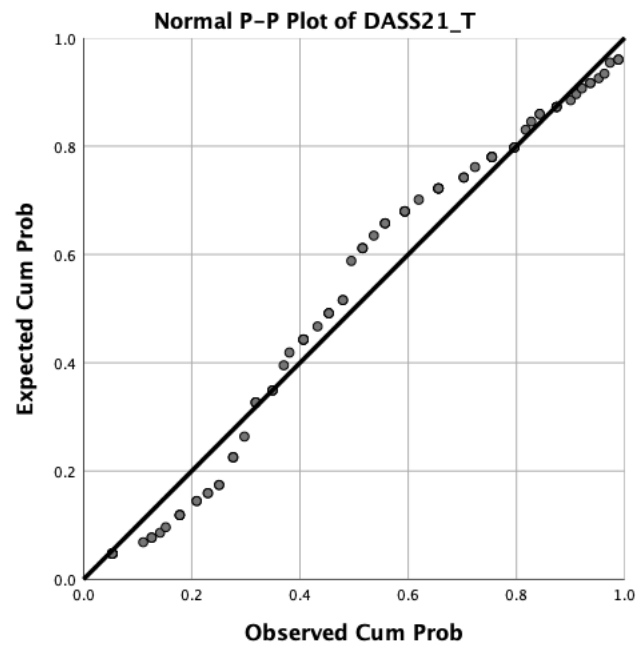


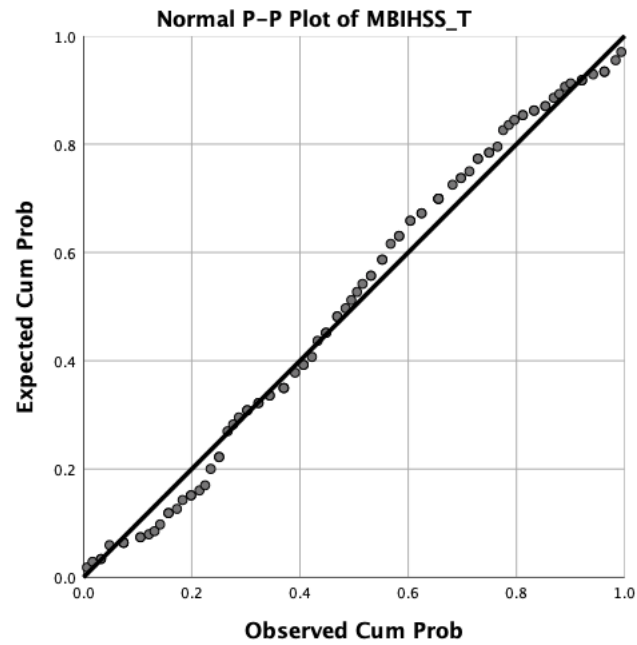
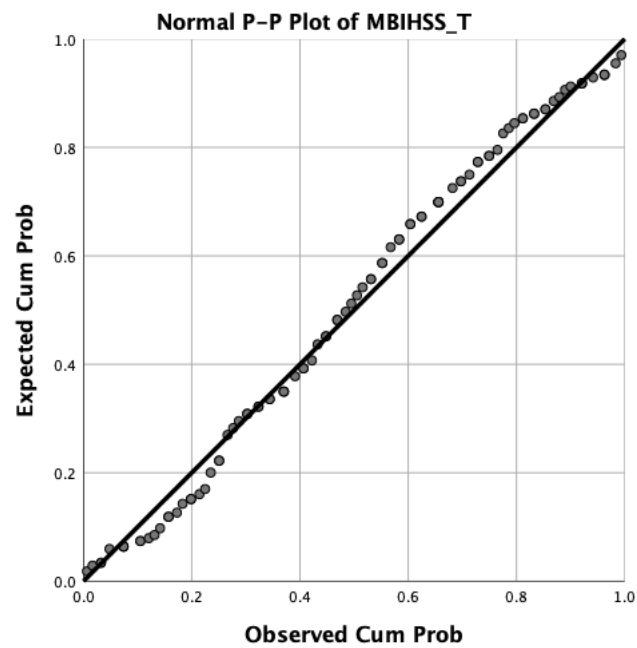
Burnout



Job Satisfaction



Appendix D: P-P Plot**Psychological Distress**

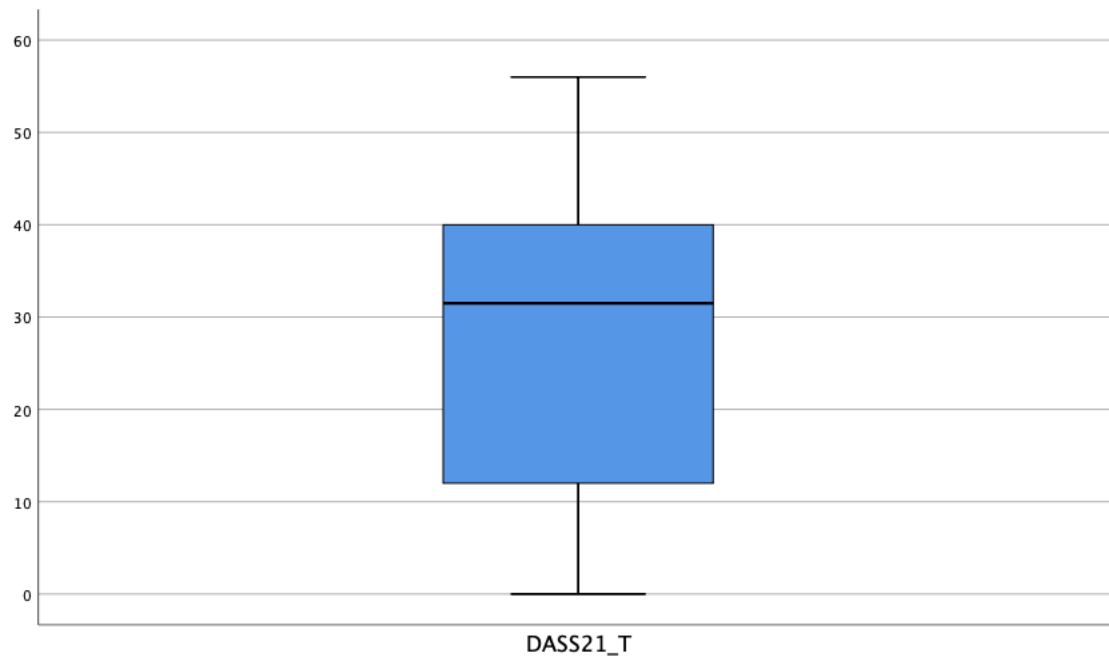
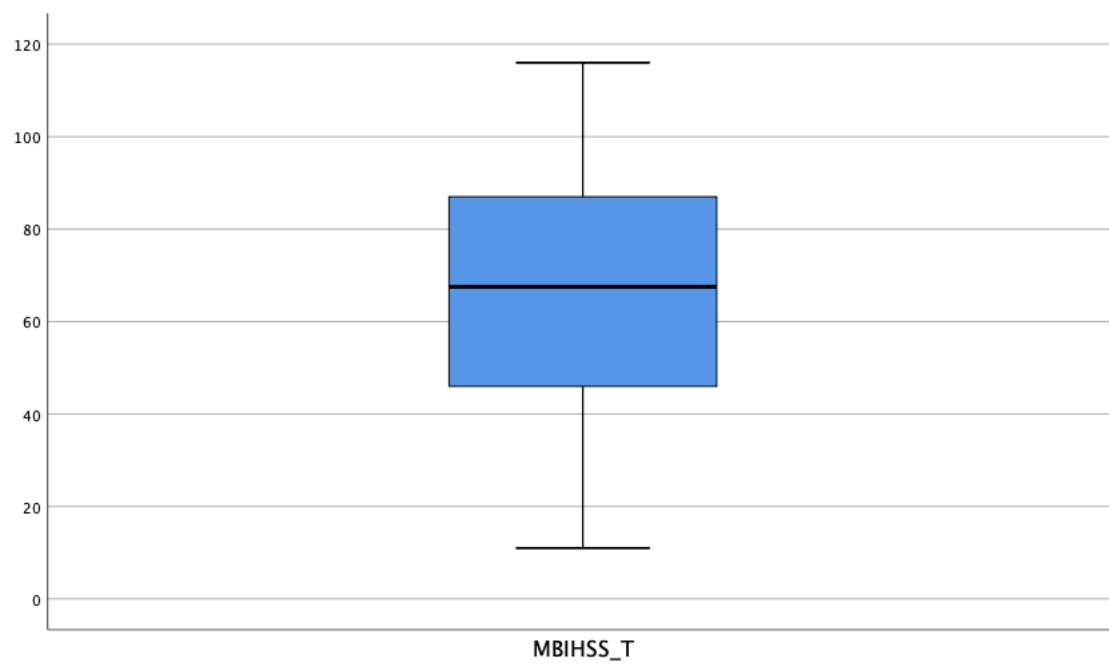
Burnout**Job Satisfaction**

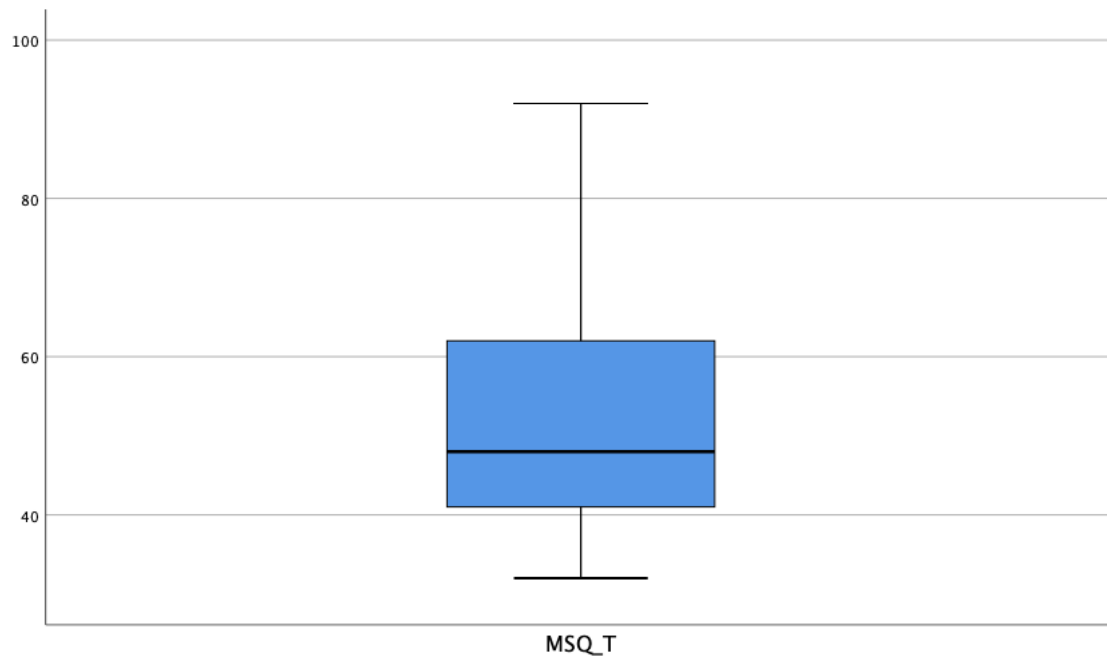
Appendix E: Kolmogorov-Smirnov (K-S) Test**Test of Normality**

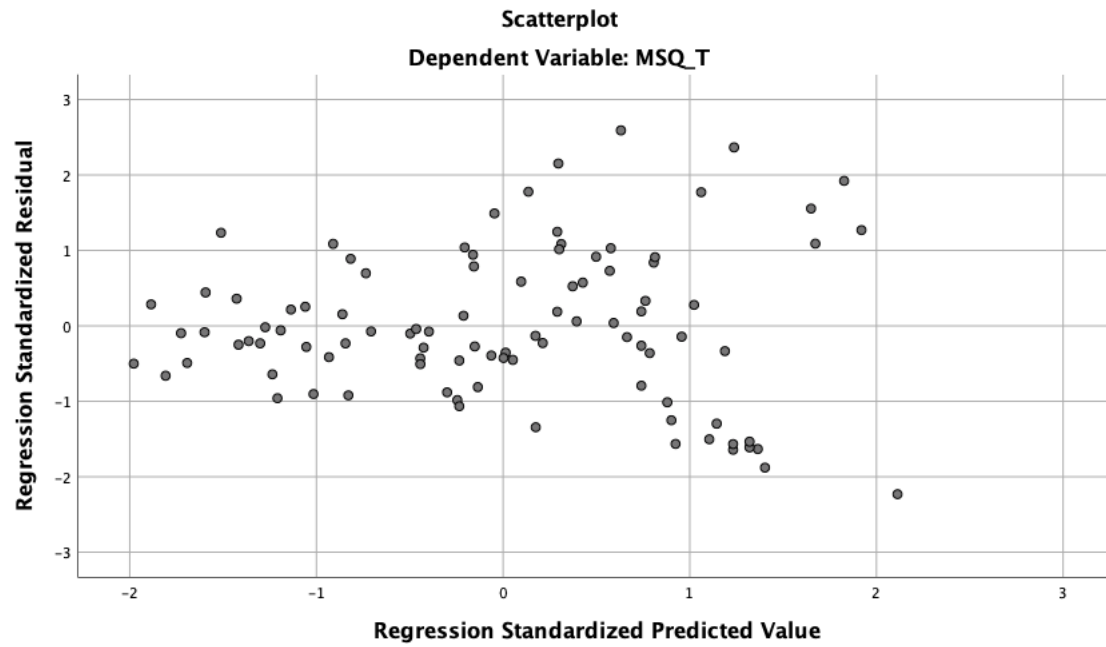
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DASS-21_T	.116	96	.003	.943	96	.000
MBI-HHS_T	.065	96	.200*	.970	96	.028
MSQ_T	.160	96	.000	.922	96	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix F: Boxplot**Psychological Distress****Burnout**

Job Satisfaction

Appendix G: Scatterplot

Appendix H: Casewise Diagnostics**Casewise Diagnostics^a**

Case Number	Std. Residual	MSQ_T	Predicted Value	Residual
39	-2.231	37	66.49	-29.490
64	2.152	85	54.56	28.443
65	2.591	91	56.76	34.241
97	2.365	92	60.74	31.260

a. Dependent Variable: MSQ_T

Appendix I: Case Summaries Table**Case Summaries^a**

	Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
1	1	1.34751	.00018	.01418
2	2	2.48170	.01998	.02612
3	3	.02686	.00226	.00028
4	4	.40771	.00005	.00429
5	8	.48279	.00002	.00508
6	9	2.26372	.01295	.02383
7	10	1.63946	.02205	.01726
8	11	3.67415	.02149	.03868
9	12	1.84418	.00025	.01941
10	13	1.11315	.01208	.01172
11	14	3.64605	.06635	.03838
12	16	1.88483	.00901	.01984
13	17	1.65145	.00053	.01738
14	18	.09449	.00864	.00099
15	19	1.66174	.01778	.01749
16	20	.36463	.00041	.00384
17	21	4.98879	.00014	.05251
18	22	.61740	.00076	.00650
19	23	.89677	.00190	.00944
20	24	2.23415	.00256	.02352
21	25	2.51989	.04685	.02653
22	26	3.88130	.01250	.04086
23	27	.63456	.00091	.00668
24	28	.71563	.00032	.00753
25	29	.63918	.00697	.00673
26	30	3.48181	.00063	.03665
27	31	2.40199	.00002	.02528
28	32	1.14312	.00758	.01203
29	33	1.04987	.00013	.01105

30	34	1.45290	.00635	.01529
31	35	.42441	.00397	.00447
32	36	.72309	.00205	.00761
33	37	2.42055	.00163	.02548
34	38	.58321	.00887	.00614
35	39	4.47282	.10743	.04708
36	40	.10212	.00014	.00107
37	41	.02163	.01146	.00023
38	42	1.86202	.00082	.01960
39	43	1.35207	.01020	.01423
40	44	2.79281	.03525	.02940
41	45	2.96948	.04081	.03126
42	46	2.96948	.03713	.03126
43	47	3.12501	.04204	.03289
44	48	3.06785	.04030	.03229
45	49	2.89240	.02487	.03045
46	50	3.06785	.03660	.03229
47	51	2.92828	.00167	.03082
48	52	1.12018	.00060	.01179
49	53	1.93986	.00045	.02042
50	54	1.90699	.00995	.02007
51	55	1.71463	.00794	.01805
52	56	5.43105	.00650	.05717
53	57	2.80641	.00010	.02954
54	58	2.03966	.00071	.02147
55	59	1.29686	.00039	.01365
56	60	1.37235	.00739	.01445
57	61	.88513	.00118	.00932
58	62	1.55026	.00389	.01632
59	63	3.45892	.00415	.03641
60	64	1.21201	.03750	.01276
61	65	.44501	.03483	.00468
62	66	1.39868	.00469	.01472
63	67	1.18974	.00051	.01252

64	68	1.30894	.00001	.01378
65	69	.81859	.00320	.00862
66	70	2.61911	.00268	.02757
67	71	.72410	.00003	.00762
68	72	.72938	.00555	.00768
69	73	3.59006	.00144	.03779
70	74	1.67665	.00000	.01765
71	75	.12863	.00434	.00135
72	76	1.57511	.00003	.01658
73	77	2.65606	.00152	.02796
74	78	2.86280	.00266	.03013
75	79	3.48181	.00120	.03665
76	80	.68158	.00209	.00717
77	81	1.34512	.00019	.01416
78	82	1.86548	.00216	.01964
79	83	.85158	.00692	.00896
80	84	3.35656	.00312	.03533
81	85	2.23415	.01375	.02352
82	86	1.49406	.00017	.01573
83	87	1.65055	.00252	.01737
84	88	3.57218	.00132	.03760
85	89	1.85059	.00666	.01948
86	90	5.24336	.00024	.05519
87	91	2.25203	.00066	.02371
88	92	1.11291	.00630	.01171
89	93	5.11229	.00317	.05381
90	94	5.06837	.01061	.05335
91	95	2.95189	.03640	.03107
92	96	3.76768	.02981	.03966
93	97	1.70308	.05599	.01793
94	98	1.49205	.00943	.01571
95	99	2.03977	.00942	.02147
96	100	1.39887	.02769	.01472

Appendix J: SPSS Output for Normality Assumption Testing**Skewness and Kurtosis**

		DASS21_T	MBIHSS_T	MSQ_T
N	Valid	96	96	96
	Missing	4	4	4
Mean		27.354	66.208	52.615
Std. Error of Mean		1.672	2.696	1.493
Median		31.50	67.50	48.00
Mode		.00	26.00 ^a	40.00 ^a
Std. Deviation		16.380	26.417	14.632
Variance		268.315	697.852	214.113
Skewness		-.260	.173	.893
Std. Error of Skewness		.246	.246	.246
Kurtosis		-1.078	-.956	.134
Std. Error of Kurtosis		.488	.488	.488
Range		56.00	105.00	60.00
Minimum		.00	11.00	32.00
Maximum		56.00	116.00	92.00
Percentiles	25	12.00	46.00	41.00
	50	31.50	67.50	48.00
	75	40.00	87.00	62.00

a. Multiple modes exist. The smallest value is shown

Appendix K: SPSS Output for Assumption Testing of Multiple Linear Regression**Multicollinearity****Coefficients^a**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	68.806	3.657		18.816	.000		
DASS21_T	.108	.223	.121	.959	.340	.539	1.857
MBIHSS_T	-.289	.070	-.522	-4.136	.000	.539	1.857

a. Dependent Variable: MQA_T

Independence of Errors**Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.449 ^a	.201	.184	13.216	1.649

a. Predictors: (Constant), MBS-HHS_T, DASS-21_T

b. Dependant Variable: MSQ_T

Appendix L: Spearman *rho* Correlation**Correlations**

			Dass-21_T	MBS-HSS_T	MSQ_T
Spearman's rho	DASS21_T	Correlation Coefficient	1.000	.629**	-.272
		Sig. (2-tailed)		.000	.097
		N	96	96	96
	MBIHSS_T	Correlation Coefficient	.601**	1.000	-.319**
		Sig. (2-tailed)	.000		.000
		N	96	96	96
	MSQ_T	Correlation Coefficient	-.171	-.390**	1.000
		Sig. (2-tailed)	.097	.000	
		N	96	96	96

**, Correlation is significant at the 0.01 level (2-tailed)