

RESEARCH ARTICLE

PSYCHOLOGICAL DISTRESS AND BURNOUT. THE DUO PHENOMENA AMONG MEDICAL OFFICERS IN A TERTIARY HOSPITAL IN MALAYSIA

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Abstract

Burnout among doctors is an alarming issue causing impairment of function among doctors, leading to failure of optimum healthcare delivery. This study aims to improve the knowledge gap of burnout and psychological distress among medical officers. It is a cross-sectional study involving 250 medical officers, using universal sampling. Of the total 250 participants, 63 (25.2%) were burnout. The presence of burnout was significantly associated with psychological distress ($p < 0.001$). Burnout is prevalent among medical officers. It is vital to maintain good psychological wellbeing in the form of good stress management and resilience training. *ASEAN Journal of Psychiatry, Vol. 22(6), August 2021: 1-12.*

Keywords: Burnout, Psychological Distress, Doctors, Medical

Introduction

Burnout among doctors is an alarming issue causing impairment of function among doctors. Almost one-third of physicians are experiencing burnout at any given time. Some studies found that long working hours causing significant stress and work-life imbalance as one reason for such high burnout [1]. Ineffective management of burnout can result in negative consequences not only for the doctors but also for the healthcare clients.

An American Psychologist, Herbert Freudenberger, introduced the term “burnout” in the 1970s. Maslach & Jackson suggested the widely known concept of burnout, elaborated by Cordes & Dougherty [2,3]. Burnout is manifested in three dimensions: Emotional Exhaustion (sense of being emotionally overextended and exhausted due to condition of work), Depersonalisation or Cynicism (sense of being detached and impersonal towards any form of contact within one’s work) and low Personal Accomplishment (sense of competence and achievement when one works with people)

[4,5]. Medical doctors are faced with ongoing challenges at work, which predispose them to chronic stress, a significant risk to burnout. People who are burnout experience negative consequences either at the personal level or towards other people such as patients, carers and other colleagues [6].

Ridner described and analysed the concept of “distress” [7]. The term “psychological distress” is widely used in researches and clinical practices. However, its construct has yet been well described. It often used interchangeably with emotional distress [8,9]. Massé stated that any experience that causes psychological distress could shift a stable emotional state to other states such as depression, anxiety, and reduced self-appreciation [10]. In the current pandemic situation, COVID-19 has increased the existing challenges to all workforce, particularly the medical doctors, such as increased workload, which is significantly associated with increased burnout, impairing their functions [11,12]. Psychological distress is one of the factors studied that associated with burnout, either before or during a pandemic

[13,14]. Brain research has indicated that uncontrollable stress impairs the functioning of the prefrontal cortex, which regulates several cognitive operations crucial to doctors such as “abstract reasoning, higher-order decision making, insight, and the ability to persevere through challenges”. The function of the prefrontal cortex is impaired when doctors experienced chronic stress leading to reduced motivation, unprofessional behaviour and suboptimal communication with patients [15].

In Malaysia, medical officers the medical doctors that have completed their internship but have not obtained their specialist status. They are the main players in the healthcare system. They have to fulfil clinical tasks that ensure the patients and families receive the highest standard of care. It is imperative to safeguard their wellbeing to ensure their safety physically and mentally, apart from the efficient healthcare service delivery. To date, there are limited studies assessing burnout and its association with psychological distress among medical officers in Malaysia. Recognizing the gap in understanding this issue, this research aims to determine the prevalence and describe the domains of burnout as well as to identify their relationship with psychological distress among medical officers working in a tertiary hospital in Malaysia.

Literature Review

The concept of burnout was introduced since the year 1974, and since then, more studies came along discussing the definition, factors associated with it and how to curb burnout [16]. Freudenberger focused more on the clinical aspect of assessment of burnout, its prevention strategies and possible intervention options. Other researchers focused more on developing different theories of burnout [17]. Burnout can be looked at as a multidimensional or unidimensional construct [18]. Currently, the multidimensional theory of burnout is the main approach in studying burnout. However, more researchers found the need to look at it in a unidimensional approach, especially if people are trying to study the complex relationship between burnout and other variables.

The complications of burnout include reduced clients' satisfaction, high turnover rate and impairment of efficiency at workplace [19]. A study in Malaysia showed that factors such as high level of workload and conflict between work and social/family life caused psychological distress that can potentially lead to burnout among the doctors [20]. Although burnout can affect the working class people, the ones related to dealing and caring for human such as teacher, nurses and doctors are of greater risk [21]. Doctors have been demonstrated to have higher susceptibility for burnout probably due to their training and work.

Psychological distress is a non-specific current reaction to a stressful event which can manifest as emotional instability such as depressive and anxiety symptoms [22]. A study by Evans et al. reported high stress levels to have a significant relationship with Emotional Exhaustion, which is one of the dimensions of burnout [23]. In other papers who referred burnout as compassion fatigue, those who had the significant high score of personal distress are the ones who had noticeable sign of burnout [24,25]. In two studies that are almost 10 years apart concluded that depressive disorder is related to burnout [26,27]. The same authors too found that the people who are depressed are also experiencing burnout, more frequently as compare to those who had not been depressed earlier [28]. Moreover, in a recent systematic review on levels of burnout among clinicians by Giménez et al. the authors indicated that burnout may correlate with violence at work [29]. Significant risk factors for burnout include work related factors (including poor support system, poor quality of the working environment, authoritarian leadership, lack of autonomy or extended duration of working days) and individual factors (such as age, gender, nationality or academic qualification). The authors also described good quality working environment, adequate support system and good coping strategies as protective factors of burnout.

In Malaysia, the issue of psychological distress among the doctors was addressed much earlier

in 1997, where a paper by Hatta & Maniam found that 77.5% of 40 Malaysian young doctors are experiencing psychological distress [30]. Until today, there is still sparse of evidence to inform effective strategy to manage this issue. Malaysia still has a shortage of doctors that have not reached the standard set by the World Health Organization (WHO). This can lead to psychological distress and subsequently symptoms of burnout [31]. Doctors are known to have a higher risk of depression and burnout than other professional groups and the normal population [32–34]. The anxiety symptoms are also noted among the doctors in Malaysia at a quite significant prevalence. Hence, if the psychological distress is not managed seriously and effectively from all angles by the stakeholders, the issue of burnout will remain status quo [35].

Methodology

This is a cross-sectional study involving medical officers in a Malaysian tertiary public hospital. Universal sampling method was used. 408 medical officers in the hospital were approached during the hospital and department Continuous Medical Education (CME) from March until May 2017. The participants' information sheet was given, and the study risk and benefit were explained. Those who gave written informed consent were recruited for the study. A set of questionnaires were given before the CMEs and collected after the sessions. Those who were not in the CMEs sessions were not approached.

Inclusion criteria include medical officers aged 18 and above, registered in the hospital database at the time of the study, and who understood, read, and communicated in English or Bahasa Malaysia. Medical officers who were posted to other hospitals or health facilities for continuous learning at the time of the study or have previous history of psychiatric illness were excluded. The medical officers were invited to provide their sociodemographic information. Burnout was measured using Maslach Burnout Inventory (MBI-HSS), and the operationalized definition of burnout in this study follows the definition used by researchers [36]. Burnout

was defined as “high” score (\geq 75th percentile) of the EE total score plus the total score of DP. The severity of three dimensions of burnout were also assessed individually to determine the levels of each burnout dimensions. Cronbach's alpha for the EE, DP and PA were 0.880, 0.790, and 0.735, respectively. Psychological distress was measured using DASS-21 [37].

Ethical approval was obtained from Ethical Board of Research Committee of Universiti Teknologi MARA (UiTM) and the National Medical Research and Ethics Committee (MREC) of the Ministry of Health (MOH), Malaysia *via* the National Medical Research Registry (NMRR). All data analysis was done using International Business Machines (IBM®) Statistical Package for Social Sciences (SPSS® version 24) for Window 10. Descriptive statistics were used for sociodemographic factors, burnout, and psychological distress. Prevalence of burnout, psychological distress and the association between the two factors were analysed using Bivariate analysis (chi-square test and independent t-test) and multivariate analysis (linear regression).

Findings

A total of 390 questionnaires were distributed. Of the total, 255 participants consented and submitted their answered questionnaires. The response rate was 65.38%. Five questionnaires were rejected due to incompleteness.

There were more female than male medical officers (32% male and 68% female) with the mean age of 30.37 ± 2.80 years. More than half were Malays (135; 54%) and married (145; 58%). About two-thirds of the medical officers had no children (160; 64%). In terms of the cluster of the department, the medical and surgical clusters had about the same number of medical officers which was significantly higher than the ones on laboratory medicine and administration cluster. The mean duration of service in months as a medical officer was 54.3 ± 42.39 . 81 (32.4%) of the medical officers were at the time of study undertaking postgraduate training (Table 1).

Table 1: The Sociodemographic Factors of the Medical Officers

Variable	Frequency (%)	Mean (SD)
Age (years)		30.37(2.80)
Gender		
Male	80 (32)	
Female	170 (68)	
Ethnicity		
Malay	135 (54)	
Chinese	59 (23.6)	
Indian	53 (21.2)	
Others	3 (1.2)	
Marital status		
Single	105 (42.0)	
Married	145 (58.0)	
No. of children		
0	160 (64.0)	
01-Feb	76 (30.4)	
03-Apr	13 (5.2)	
05-Jun	1 (0.4)	
Department		
Administration	7 (2.8)	
Medical cluster	119 (47.6)	
Surgical cluster	116 (46.4)	
Medical sciences	8 (3.2)	
Duration working as MO (months)		54.3 (42.38)
Specialist training program		
Yes	81 (32.4)	
No	169 (67.6)	

This study found the cut-off point for a total score of the presence of burnout (*i.e.*, level of Emotional Exhaustion and Depersonalisation

more than 75 percentiles) was at ≥ 41 (Table 2).

Table 2: Scores of the MBI-HSS and its Sub-Scales

Dimensions	N items	Mean (SD)	Range	25 th percentiles	50 th percentiles	75 th percentiles	Low	Moderate	High
							n(%)	n(%)	n(%)
EE	9	23.41(10.66)	Feb-51	16	32	31	67(26.8)	87(34.8)	96(38.4)
DP	5	8.18 (5.95)	0-30	4	7	12	118(47.2)	77(30.8)	55(22.0)
PA	8	31.38(7.424)	14-48	26	31	37.3	128(51.2)	77(30.8)	45(18.0)
Presence of burnout (EE+DP)	14	31.59(15.24)	Apr-77	20	32	41			

EE= Emotional Exhaustion, DP= Depersonalisation, PA= Personal Accomplishment

Prevalence of burnout among the medical officers in the hospital was 25.2% (n=63) (refer to Figure 1). In the EE dimension, more than a third (38.4%) of medical officers scored high.

For the DP dimension, only 22% reported high score and for PA dimension, the majority (51.2%) scored low (Figures 2 to 4).

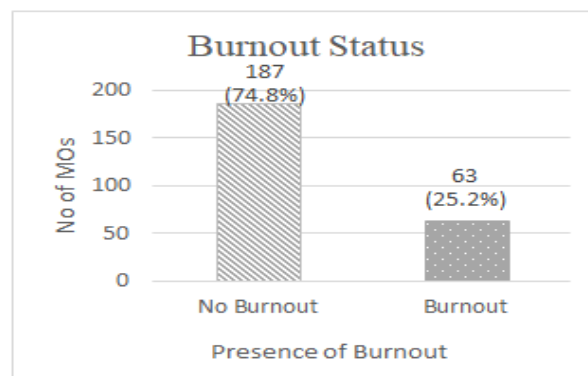


Figure 1: The Presence of Burnout

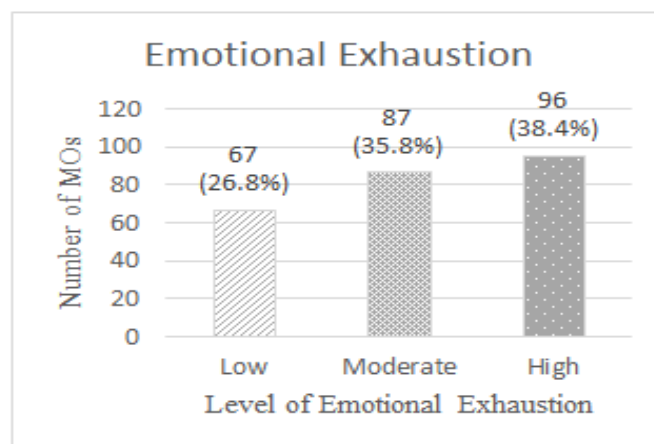


Figure 2: Level of Emotional Exhaustion

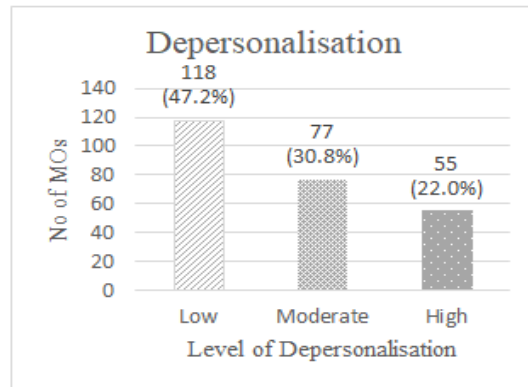


Figure 3: Level of Depersonalisation

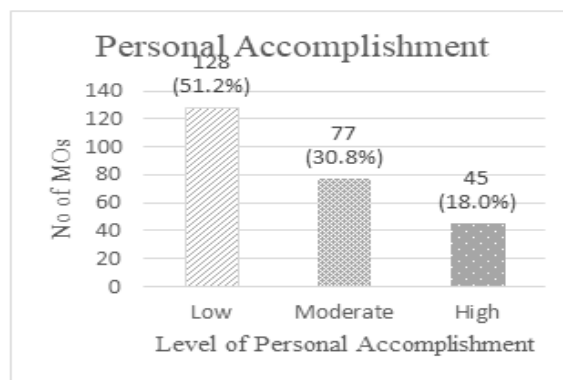


Figure 4: Level of Personal Accomplishment

There was a significant difference in mean score of depression, anxiety and stress among those having burnout and no burnout group (Table 3). A chi-square test of independence was performed to examine the relation between the emotional distress (depression, anxiety and stress) and burnout. All three components were statistically significant with *p* value <0.001 for depression, anxiety and stress. For Depression,

the highest number of medical officers who suffers burnout fall into the clinically relevant group (52.4%). The same goes for Anxiety and Stress with the percentage of medical officers being in the clinically relevant group of 58.7% and 42.9% respectively. These results showed that the medical officers who are depressed, anxious and stressed are significantly associated with burnout compared to those who are not.

Table 3: Association between Psychological Distress and Burnout

Psychological distress		Burnout	No Burnout	Chi square (df)	P value
		N(%)			
Depression	No depression	22(34.9)	142(75.9)	37.9	<0.001*
	Mild	8(12.7)	15(8.0)	-2	
	Clinically relevant	33(52.4)	30(16.0)		
Anxiety	No anxiety	19(30.2)	110(58.8)	22.5	<0.001*

	Mild	7(11.1)	28(15.0)	-2	
	Clinically relevant	37(58.7)	49(26.2)		
Stress	No stress	21(33.3)	138(73.8)	43.79	<0.001*
	Mild	15(23.8)	32(17.1)	-2	
	Clinically relevant	27(42.9)	17(9.1)		

*Chi-Square test *p* value<0.05 as significant at 95% CI

Table 4: Multivariate Analysis of Associated Factors with Burnout

Variables	B	SE	Adjusted OR ^b	Wald statistics ^b	P value ^b
			(95% CI)	(df)	
Depression (No depression vs others)	-1.06	0.36	0.35(0.17,0.71)	8.50(1)	0.004
Stress (No stress vs others)	-1.05	0.36	0.35(0.17,0.71)	8.59(1)	0.003

Simple logistic regression, ^b Multiple logistic regression.

Multiple logistic regression analysis shows that medical officers who have normal level of psychological distress of depression (adjusted OR: 0.35; 95% CI: 0.17, 0.71; P=0.004) and have normal level of stress (adjusted OR: 0.35; 95% CI: 0.17, 0.71; P=0.036) were significantly reduced odds of getting burn out. Having no depression and no stress are protective factor for burnout; those without depression is 65% less likely to have burnout.

Discussion

This study is the first to explore the relationship between psychological distress and burnout among the medical officers in Malaysia. Medical officers have huge responsibilities in clinical and administrative work, while at the same time undergo more specialised training. The medical officers need to adapt to the new working time, where they work at longer hours during on call, contrary to the working system of Houseman’s Flexi Hour Shift System, during internship, which has been proven to reduce job-related stress [38].

The percentage of medical officers that were found to be burnout was significant (25.2%). The result is consistent with a South African public hospital study in which 26.3% of the 205 participants were burnout [39,40]. The result also consistent with another study in a more well-resourced country the Netherlands, by Prins et al., who investigated a larger number of respondents (5140 respondents) [41]. However, the studies by Shanafelt et al. and Wu et al. found a higher prevalence of burnout which may be due to a bigger sample size [42,43]. Other studies in Europe by Soler et al. and in Yemen by Al-Dubai & Rampal showed a lower burnout rate [44,45]. This may be because the different studies used different definitions to identify burnout [46]. The burnout prevalence of medical officers was found to be similar to that of doctors going through an internship. Studies of burnout among medical students showed as high as 67.9% [47,48]. The vast difference could be the difference in challenges of being student compared to working, although the field is still similar.

Focusing on the element of burnout, about one-third of doctors in our study have high emotional exhaustion, almost half have low level of depersonalisation and only low proportion with self-accomplishment. In recent study by local researchers indicated that dealing with clients (especially parents' of sick children), patient's psychosocial difficulties, lack of respect from colleagues or subordinates, poor recognition from supervisors, inadequate incentives and promotions, poor time management and poor goals setting could become the main factors contributing to emotional exhaustion among doctors [49]. Moreover, low level of depersonalisation and self-accomplishment also experienced by doctors in other parts of the world. For example, a recent systematic review of 30 articles on burnout among doctors in the UK indicated almost similar percentages of such attributes [50]. Hence, providing support to address emotional exhaustion, depersonalisation and self-accomplishment among doctors is crucial to ensure optimum mental health. As for the psychological distress, most of the medical officers belong to the group that has no psychological distress (65.6% no depression, 51.6% no anxiety and 63.6% no stress). However, it worries to see the number in the clinically significant psychological distress group (16.8% clinically significant depression, 17.6% clinically significant anxiety and 10% clinically significant stress). These figures need to be paid close attention to because they indicated the number of medical officers who probably need professional intervention.

Psychological distress was found to be strongly associated with the presence of burnout among the medical officers (p value <0.0010 for all the subscales). This is not a surprise as multiple literatures locally and internationally discussed the unidirectional or bidirectional effect of depression, anxiety, and stress on burnout [51,52]. Stress can be good (eustress) or bad (distress) to doctors. According to a study and the Yerkes-Dodson Law, it is important to understand that appropriate/optimum amount of stress and the stress related to challenges can have positive influence on arousal and performance. However, too much of a stress and

the hindrance type of stress can be counterproductive and have the opposite effect [53,54]. Therefore, the medical officers need to have some stress in their daily work, which will enable them to function at their optimum level. The problem is to draw the line when the pressure becomes too much because different individuals have different levels of threshold to deal with stress. Looking at the anxiety and depressive symptoms specifically, the significance of their association with burnout was consistent with the studies. Hence, the medical officers need to be aware of burnout's signs and symptoms.

There are several approaches available in addressing the issue of burnout. The World Economic Forum suggested interventions that promote good mental health by developing the positive aspects of work and employees' strengths. It also recommended reducing work-related risk factors to protect mental health and address mental health problems without any bias. Regular and accessible psychological assessment should be available for the medical officers, enabling early interventions. Authorities handling the welfare of doctors should look into incorporating the training of self-health and good stress management in the curriculum throughout the medical training. Modules that include physical and psychological health training are essential such as addressing issues at the individual level (financial, family issues), the environmental level (for example, conducive working environment) and at the organisational level (leadership style). The initiative should be supported by the National Blue Ocean Strategy (NBOS) from the financial and expertise point of view. The first limitation of the study is the cross-sectional and using non-probability sampling. Secondly, this study only included medical officers from a public hospital in Malaysia. Lastly, there was a time limitation in which the medical officers needed to complete the questionnaires. It is recommended that in the future to use longitudinal cohort study to provide a better understanding of the associations between psychological distress and burnout. The usage of probability sampling methods such as randomised sampling and

multi-centre studies can improve generalizability.

Conclusions

Burnout is prevalent among medical officers in one of the tertiary hospitals in Malaysia. No psychological distress (no depression and no stress) is protective against burnout. Effective problem solving and stress management should be encouraged to all medical officers. We hope that the findings of this study will enhance the awareness of the hospital management to plan and implement holistic preventive measures and intervention program to address burnout among the medical officers.

Acknowledgement

Thank you to the Ministry of Health, Malaysia and Universiti Teknologi MARA for making this study a success.

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ASEAN Journal of Psychiatry, Vol. 22(6), August 2021: 1-12.

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Received date: 14 July 2021

Accepted date: 05 August 2021