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Research article

PREVALENCE AND FACTORS AFFECTING BURNOUT AMONG SECONDARY CARE DOCTORS IN BAHRAIN- A CROSS SECTIONAL STUDY

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ABSTRACT

Background: Burnout is a type of prolonged response to chronic job-related stress appears as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment. **Objectives:** The present study investigated level of burnout, compare burnout levels in view of demographic factors and to identify the potential risk factors that lead to high level of burnout among secondary care doctors in Ministry of Health in Bahrain kingdom. **Methods:** The study was carried out in 230 doctors. A questionnaire survey was administered: The level of "burnout" was evaluated using the Maslach Burnout Inventory; socio-demographic variables were collected as well. **Results:** the mean response rate was 87.8%. The prevalence of the three dimensions of burn out was 43.1% with high emotional exhaustion, 26.7% with high depersonalization and 51.5% reported low personal accomplishment. In general, the profiles of an individual with high burn out were between 30-40 years old Bahraini married physician with no children. **Conclusion:** a high level burnout was found among the studied population. The study results underline significant relations that were found to link burn out with various socio-demographic variables.

Keywords: Prevalence, Factors, Burnout, Secondary care, Doctors, Bahrain

INTRODUCTION

Burnout definition had come long way since its first definition in 1947. Even though Many Burn out definitions do exist for this research the definition of burnout that will be used is adopted from Maslach and Jackson (1986) because it is the most widely used across the world ^[1]. This definition stated that: "Burnout is a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among individuals who do 'people work' of some kind" ^[2].

Burnout have a devastating effect on work force and hence on work out come. Burnout is associated with decreased job performance and commitment ^[3,4] and lower career satisfaction ^[5,6] which can lead to increased incidence of errors in clinical care ^[7] and lower quality of care ^[8,9,10]. People who are experiencing burnout can have a negative impact on

their colleagues, both by causing personal conflicts and disrupting job task ^[11].

There is also some evidence that burnout has a negative "spill over" effect on both physician's home life as they experience an increasing family problems ^[7, 12, 13, 14] and the physician's health. Health is highly affected by burnout as burn out might cause mental dysfunction such as anxiety ^[7,15], depression ^[7,9,15], Low self-esteem and morale ^[11], increased use of alcohol and drugs addiction ^[7,8,15] eating disorder and massive weight gain ^[7,15].

Burnout is not a new phenomenon – it has its root in the past. However, because of a unique constellation of several factors it was 'discovered' in the early 1970's as a particular type of prolonged occupational stress that seemed to occur most prominently among human services professionals ^[16].

Physicians' burnout is common with rates ranging from 25% to 76%, depending on the socio-economic characteristics and working conditions^[2, 17, 18, 19, 20].

The level of burnout is higher among employees over 30 years old^[18, 21, 22]. Some studies show higher burnout for women^[23,24,25], some show higher scores for men^[8,21,26] (males often score higher on cynicism where as women score slightly higher on exhaustion), and others find no overall differences^[3,27,28]. Singles seem to experience higher burnout levels^[18, 29, 30], even more than those who are divorced^[21]. Being a parent^[31] and having a physician father are protectors from burnout^[32].

MATERIALS AND METHODS

Type of study: A cross-sectional design was used in the main secondary care hospital in Bahrain

Inclusion criteria: The participants were randomly enrolled from the list of doctors from chief of medical staff in Salmaniya Medical Complex.

Doctors working in training pool & service pool in the following SMC departments: medical, surgical, pediatrics, obstetrics & gynecology, orthopedics, psychiatry, ophthalmology, emergency, ENT, radiology, pathology, anesthesia, neuroscience and oncology. The Training pool doctors were those in the specialty training residency program (STRP) which is a recognized program that adapt the training doctors to pass the Arab Board Medical Specializations requirements. The total number of doctors in SMC was obtained from the head of medical education & training office and was confirmed by the secretary of each department which was equal to 675.

Sample size: The sample size was calculated using the epi-info program version 6.0 to calculate sample size. The sample size was 230 candidates.

Exclusion criteria: Doctors who were on study leave (more than 3 months) during the period of data collection were excluded from the study

Ethical approval: Privacy and confidentiality was ensured during data collection. The questionnaire was filled anonymously. Ethical approval was received from Technical research committee in ministry of health Bahrain.

Methodology: Maslach Burnout Inventory –Human Services questionnaire^[2] was used as a tool for measuring the prevalence of burnout syndrome among the secondary care doctors in this research. It

was correlated with the participants' demographic data and the job Characteristics.

The Maslach Burnout Inventory (MBI)^[2]: The initial research on the (MBI) was based on data from the United States and Canada but subsequent studies had been done in many countries around the world and the (MBI) had been translated burnout. Psychometric studies of the (MBI) in these different settings have into various languages. Nowadays it is considered as the leading measure of continued to validate the three-dimensional structure of the measure.

There are now three versions of the (MBI)^[2]:

1. The original measure that was designed for professionals in the human services (MBI Human Services Survey or MBI_HSS).
2. An adaptation of the original measure for use with educators (MBI Educators Survey, or MBI_ES; formerly known as MBI Form Ed).
3. A new version of the MBI designed for use with workers in other occupations (MBI General Survey, or MBI_GS).

For this research, the Maslach Burnout Inventory_Human services Survey (MBI_HSS) was devised as an instrument to assess Burnout. It has been found to be reliable, valid, and easy to administer^[2].

Permission obtained from the author of the study to use the questionnaire and from the chairperson of secondary care research committee to implement the study. Each participant was given the questionnaire by hand and asked to answer it alone without knowing how the other participants responded to the questions to insure privacy. An accompanying cover letter was attached to inform the participants that the purpose of the study was to explore the job related attitudes of the residents. The word "Burnout" was not mentioned in the cover letter as recommended by the Maslach Burnout Inventory². No financial or other incentives were offered for participation. Complete instructions were provided for the participants and they were given 10-15 minutes to fill out the questionnaire. Explanations to some difficult words in the questionnaire were added. Once the questionnaire filled, it was collected immediately. Those who were unable to fill it out were requested to fill it in their leisure time and were followed up. **Statistical analysis:** For data Analysis and interpretation the authors adopted the methods explained in the Maslach Burnout Inventory Manual 3rd edition^[2]. For

our study the Statistical Package for Social Sciences (SPSS) version 15 was used to enter and analyze the data collected.

RESULTS

230 full-time doctors were asked to complete a brief and simple survey that was specifically designed for the purpose of this study. The general response rate was 87.7%. Total number of participants in this study was 202. 60.7% (122) were male. The average age for the participants was 36 years with 9 SD. 41.1% of those who answered the Age question were in the age group 30-40 years. Almost three quarters of the participants (72.8%) were married and 79 (76.7%) of them had children. The majority of the participants were Bahraini 164 (83.7%). (Table 1). The prevalence of the three dimensions of burn out among our sample was in the high category in emotional exhaustion (43.1%) and in the low category for both depersonalization (DP) and personal accomplishment (51.5%). (Table 2) In terms of the socio-demographic factors being >40 years old is less likely to experience a high level of Emotional exhaustion (18.8%) and depersonalization (8.3%) but they have a low level of personal-accomplishment (75%), whereas, being Bahraini was associated with a high level of Emotional exhaustion (47.6%). Both relationships were statistically significant (Table 3). On the other hand, males showed lower levels of personal accomplishment (54.1%), females showed high levels of Emotional exhaustion (49.4%). Married doctors had a higher score of Emotional exhaustion (46.3) and lower levels of personal accomplishment (57.8%). The results also showed that those who have no children (62.5%) had high levels of

Emotional exhaustion. All these relationships were statistically not significant. (Table 3)

Table 1: Demographic Data of participant of secondary care doctors in ministry of health of Bahrain kingdom.

Factors		N	(%)
Gender	Male	122	60.7
	Female	79	39.9
	Total	201	100.0
Age	<30	58	32.0
	30-40	75	41.4
	>40	48	26.5
	Total	181	100.0
Current Marital status	Not married	54	26.9
	Married	147	73.1
	Total	201	100.0
Having children	No	24	23.3
	Yes	79	76.7
	Total	103	100
Nationality	Bahraini	164	83.7
	Non Bahraini	32	16.3
	Total	196	100.0

Table 2: The Prevalence of Burnout dimensions among secondary care doctors in ministry of health of Bahrain kingdom.

Burnout dimension	Low	Average	High
	N(%)	N(%)	N(%)
Emotional Exhaustion	70(34.7)	45(22.3)	87(43.1)
Depersonalization	104(51.5)	44(21.8)	54(26.7)
Personal Accomplishment	104(51.5)	53(26.2)	45(22.3)

N= Number

Table 3: The relation between Demographic characteristics and burnout dimensions among secondary care doctors in ministry of health in Bahrain kingdom

Factors		High Emotional Exhaustion			High Depersonalization			Low Personal accomplishment		
		N	%	P value	N	%	P value	N	%	P value
Age	<30	25	43.1	0.01	18	31.0	0.01	22	37.9	0.01
	30-40	42	56.0		23	30.7		38	50.7	
	>40	9	18.8		4	8.3		36	75.0	
Gender	Male	48	39.3	0.57	35	28.7	0.15	66	54.1	0.28
	Female	39	49.4		19	24.1		38	48.1	
Current marital status	Not married	19	35.2	0.33	16	29.6	0.84	19	35.2	0.08
	Married	68	46.3		38	25.9		85	57.8	
Having Children	No	15	62.5	0.35	7	29.2	0.21	14	58.3	0.5
	Yes	36	45.6		16	20.3		51	64.6	
Nationality	Bahraini	78	47.6	0.01	50	30.5	0.07	83	35.6	0.91
	Non-Bahraini	7	21.9		4	12.5		19	59.4	

*P value of Chi Square test

DISCUSSION

This study was concerned to demonstrate the inter-relationship of the three most important aspects of Burnout which are: Emotional exhaustion (EE), Depersonalization (DP) and Personal accomplishment (PA) among secondary care physicians of the ministry of health in Bahrain. There are a lot of factors which have been studied and have proved the strong association among those aspects.

In this study, it was found that doctors who spent 5-10 years of practicing medicine whom are mainly training doctors who carry most of the work load and decision making have a high levels of depersonalization and emotional exhaustion. Moreover, physicians who were in the age group of (30-40) have shown strong exhibition of burnout among them with a rate of (41.1%). Both of these results reflects the fact that older doctors has less burnout than their younger peers which is similar to previous literature.^[18, 21, 22] This protective effect of older age of physician might be due to the increase in financial security and cultural factors that attribute older age with more respect and trust from patients.

The study found no significant difference in burn out between males and female participants which is similar to what had been previously shown in other studies^[3,27,28]. This might be due to equally distributed work load regardless of gender

It was found that Bahraini doctors have lower levels of emotional exhaustion in comparison to Non-Bahraini doctors.

This may be attributed to the fact that non Bahraini doctors has a lower expectations from the work and actually for most of them working in Bahrain may make them feel that they have achieved certain goals In their careers, especially financial. They are less involved in argumentation with senior colleagues and higher authorities, and social and political issues. In addition, they also have- in general- a good working deal that include allowances for housing, annual airline tickets to the home country plus school fees for their children^[18, 29, 30].

Limitations of this study were its cross-sectional design which creates difficulties in ascertaining causality. Several factors from in or outside work might have influenced both the perception of the work and the level of burnout and therefore might be

confounders. Employees who are currently depressed or burned out perceive the characteristics of their work more negatively compared with healthy employees^[31].

The other limitation factor was the nature of the sample which included physicians from different specialties, different institutions, different income, levels and working conditions so it was not possible to draw conclusions regarding specific physician group or working conditions^[32].

CONCLUSION

A high level burnout was found among the studied population. The study results underline significant relations that were found to link burn out with various socio-demographic variables.

Recommendations: In view of Burnout is prevalence and its adverse effect on the doctors wellbeing, doctor patient relationship and quality of care; we recommend periodically surveying physicians and organization for Burnout.

Further research is necessary for more comprehensive understanding of the problem of Burnout and psychiatric morbidity among physicians, improvement of medical training and attention to the psychological implications of working in health care may facilitate prevention and treatment of possible emotional problems physicians may encounter during their career. This might in turn, have positive effect on the doctor-patient relationship and quality of care.

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