



ORIGINAL ARTICLE

A Study on the Prevalence of Burnout Among Primary Care Physicians on the Kingdom of Bahrain

Basem Abbas Ahmed Al Ubaidi^{1*}, Shaima Helal², Kawthar Mohamed Abdulla Al-Eid¹, Lulwa Rashid Hasan Al-Showaiter¹, Kareema AlAsheeri³, Yasmeen AbdulRasheed¹, Sharafuddin Sarwani¹

¹Consultant Family MD, Ministry of Health, Kingdom of Bahrain

²Intern, Ministry of Health, Kingdom of Bahrain

³General Medical Practitioner, Private Clinic, Kingdom of Bahrain

*Corresponding author:

Dr. Basem Abbas Ahmed Al Ubaidi, Consultant Family MD, Ministry of Health, Kingdom of Bahrain;
Email: bahmed1@health.gov.bh

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Abstract

Background: Burnout is an emerging issue worldwide that has become an increasingly common phenomenon at health organizations, especially among primary health care physicians.

Objective: The study aimed to examine the level of burnout among primary care physicians, and its related risk factors in the Kingdom of Bahrain.

Methods: This cross-sectional study included 211 health care physicians whose data was gathered using the Maslach Burnout Inventory (MBI). MBI consists of 9 items categorized into three subscales: emotional exhaustion (EE), depersonalization (DP), and personal achievement (PA). High EE and DP scores and the corresponding low PA scores were considered to be indicative of high levels of burnout.

Results: The overall prevalence of high levels of burnout among primary care physicians in Bahrain was 41.2%. A total of 97.1% of participants showed signs of increased DP, whereas 45.9% were emotionally exhausted. Surprisingly, 82.6% scored low in terms of PA. Risk factors such as age, gender, nationality, marital, and professional status were significantly associated with EE, which was further exacerbated in patients who skipped appointments, had lengthy consultations, or had difficulties with i-seha and e-filing. Increased DP and low PA among physicians were notably linked to their financial income and professional status. Overwhelming delays and demands of patients also contributed to a sense of low PA.

Conclusion: The results of this study represent the current rate of burnout experienced by physicians and indicate the potential health crisis that may ensue if this phenomenon is left unaddressed.

Keywords: Depersonalization; Prevalence; Primary care physicians; Professional burnout; Risk factors

Introduction

Burnout is considered a psychological disorder arising due to the demands of a job or an interpersonal stressor.¹ It is usually defined as “a

condition of experiencing overwhelming physical, emotional, and mental exhaustion (e.g., feelings of cynicism and disinterest from the job and a sense of incompetence and absence of accomplishment).”^{2,3}

Burnout invariably results in the depletion of personal well-being determinants, reducing physicians' capacity to manage their patients' health appropriately.⁴ Burnout has three primary forms of manifestation, namely, emotional exhaustion (EE), high depersonalization (DP) which is also known as compassion fatigue, and a reduced sense of personal achievement (PA).^{5,6}

Physician burnout can be interpersonal, intrapersonal, organizational, or a combination of these.⁵ Primary care physicians (PCP) suffer from higher rates of professional burnout than other medical specialists.⁷ High percentages of PCPs (55%) reported some symptoms of burnout, 67% of them regretted choosing to work in Primary Care, and 65% of PCPs were dissatisfied with their work-life balance.^{7,8} Work-related burnout stems from lack of reward, feeling undervalued, administrative burden, demanding career expectations, stressful job environment, and dealing with difficult patients' expectations.^{1,9}

The warning signs of burnout can be categorized as somatic, emotional, or behavioral symptoms. For instance, sleep disturbance, chronic fatigue, changes in appetite, headache, and dizziness are the somatic symptoms of burnout. The chief emotional signs of burnout are lack of interest or apathy and demoralization; while hyperactivity syndromes such as denial and anger are typical behavioral symptoms of burnout.^{1,10}

Physicians' burnout has its physical, psychological, and occupational consequences on them and their performance in terms of their diagnostic ability by increasing the chances of clinical errors. This also indirectly affects the patients by impacting the quality of their care and health outcomes.^{4,11,12} Physicians displaying increased DP tend to evoke low confidence in patients towards treatment, ultimately resulting in poor adherence to the management plans prescribed.¹³ Physicians' dissatisfaction will eventually increase their depression, stress, and anxious distress or even lead to physicians leaving their clinical practice.^{13,14} These highlight the need for early identification of this health condition to devise effective preventive strategies.

The lack of research on the issue of PCPs' burnout in the Kingdom of Bahrain has reinforced the need for the present study. This study was conducted to determine the burnout prevalence rate and to identify the associated causative factors in physicians in the Ministry of Health of the Kingdom of Bahrain.

Methods

This descriptive, cross-sectional study was carried out in 2019 through a collaboration between all the 28 health centers in the Kingdom of Bahrain's Ministry of Health. Among the 344 physicians who were contacted for the study, 211 responded; 178 were certified family physicians from a family residency program, while 33 were non-certified family physicians. All physicians working in all public sector local health care centers irrespective of age, sex, years of experience, and specialization were eligible for inclusion in the study. The following exclusion criteria were applied: all family physicians not practicing in the public primary care sector, Family Medicine residents yet to complete their training program as well as interns, and doctors on leave at the time of data collection. The research committee approved the study in February 2019. Participation in the study was voluntary, and all the participants were assured of the complete confidentiality of the data collected.

To test the adequacy and reliability of the research, a pilot study was commissioned, which provided information on the average time taken by the physician to fill out the questionnaire and also identified certain ambiguities in the questionnaire fields, which were subsequently improved upon. Based on the insights provided by the pilot study, the feasibility and efficiency of the research protocol were determined, following which, the internal consistency of the Maslach Burnout Inventory (MBI) was evaluated by measuring the Cronbach's alpha for all questionnaire subscales. A detailed questionnaire that included socio-demographic details and assessed the responses of physicians towards their perception of working as a PCP was developed. This questionnaire consisted of two sections wherein the first section collected data such as age, sex, marital status, nationality, qualifications,

and salary as well as professional attributes such as professional status, weekly working days, number, and duration of annual vacations. The second section of the questionnaire focused on the assessment of prevalence and extent of burnout using the MBI tool and to identify risk factors. The MBI consists of 22 items (we used 9 items) and serves as a reliable and convenient self-assessment survey instrument.¹¹ It delineates burnout across its three paradigms of EE, DP, and PA.

The questionnaire was distributed and collected on the same day by the medical superintendent and the principal investigator. The responses were selected by the participants based on a 7-point Likert scale ranging from 0 (never) to 6 (every day).¹⁵ Questions 22-24 were directed towards assessing the emotional drain due to work, whereas questions 25-27 and 28-30 examined detachment from work and perceived levels of competency and accomplishment, respectively. Participants were allotted 15-20 min to complete the questionnaire, based on the results of the pilot study. High scores in EE and DP domains were indicative of greater emotional exhaustion and depersonalization and major burnout, whereas high scores in PA were indicative of greater personal accomplishment and low burnout.¹⁶

The statistical analysis of the data was done using SPSS version 22.0. Descriptive statistics, such as percentages and frequencies, were used to comprehensively demonstrate the prevalence of burnout. Bivariate analysis of mean burnout subscale scores with the chosen array of independent variables was carried out using the Chi-square test. The independent variables consisted of demographic characteristics such as age, sex, marital status, nationality, qualifications, and salary as well as professional attributes such as professional status, professional-grade, weekly working days, and number and duration of annual vacations. Three multivariate logistics regression models, one for each subscale of the MBI scale, were analyzed. A $P < 0.05$ was considered to show statistical significance between the variables of interest.

Results

Out of 344 PCPs working in the Kingdom of Bahrain, 211 answered the distributed questionnaires. The response rate was 61%. Out of the 211 participants, 77.7% were females. The socio-demographic data as well as the professional characteristics of the participants are illustrated in Table 1.

Table 1: Socio-demographic data and professional characteristics (N=211)

Factors	N	%	
Gender	Male	47	22.3
	Female	164	77.7
Age (years)	<40	101	47.9
	≥40	110	52.1
Nationality	Bahraini	186	88.2
	Non-Bahraini	25	11.8
Marital Status	Single	19	9
	Married	181	85.8
	Divorced / Separated	10	4.7
	Widowed	1	0.5
Number of Children	Nil	35	16.6
	<3	67	31.7
	≥3	109	51.7
Salary	<1500 BD	63	29.8
	1500-3000	115	54.6
	>3000	33	15.6
Professional Status	Consultant	88	41.7
	Family Certified Family Non-Consultant	90	42.6
	Master Diploma	24	11.4
	Bachelor	9	4.3
Professional Grade	P 6-7	120	56.9
	P 8-9	59	28
	P 10	9	4.2
	Executive	23	10.9

Table 2: Classification of Maslach Burnout Inventory [MBI] subscale levels

MBI Subscales #	Scores		
	High (%)	Moderate (%)	Low (%)
EE	45.9	27.8	26.3
DP	97.1	2.9	0
PA	16.9	0.5	82.6

DP-depersonalization , EE-emotional exhaustion , PA-personal achievement

According to the MBI subscales, the prevalence of burnout among PCPs in Bahrain was 41.2%. A total of 45.9% of the participants were found to have high levels of EE and 97.1% had increased DP, which corresponded to high degrees of burnout. In contrast to the EE and DP subscales, the lower the percentage of PA, the higher the extent of burnout. The results showed that 82.6% of the participants had low levels of PA (Table 2).

The association between the three burnout components and the demographic data of the

participants was studied. It was found that high EE was associated with increased age of the physician, female gender, Bahraini nationality, marital status, and consultant status. However, high DP and low PA did were not linked to many factors. Physicians' salary (<3000 BD) was the only factor found to increase the risk of DP. Additionally, professional status was the only factor that was related to low PA. Certified family physicians who were consultants and non-consultants represented 83% of the participants with a low sense of PA (Table 3).

Table 3: Comparison of the mean burnout scores in terms of demographic variables by Chi-square test

Factor		MBI Subscales					
		High EE		High DP		Low PA	
		%	P value	%	P value	%	P value
Gender	Male	33.3	0.000*	21.6	0.628	23.1	0.584
	Female	66.7		78.4		76.9	
Age (years)	<40	37.2	0.004*	48	0.522	48	0.789
	≥40	62.8		52		52	
Nationality	Bahraini	82.9	0.008*	89.6	0.557	88.4	0.825
	Non-Bahraini	17.1		10.4		11.6	
Marital Status	Single	7.4	0.024*	8.8	0.920	9.5	0.746
	Married	82.9		85.7		85	
	Divorced -Separated	9.7		4.9		5.5	
	Widowed	0		0.6		0	
Number of Children	Nil	15.9	0.553	17.1	0.258	17.5	0.409
	<3	28.7		32		31.5	
	≥3	55.4		50.9		51	
Salary	<1500 BD	25.2	0.231	28.8	0.028*	30.4	0.338
	1500-3000	58.2		55.7		54.3	
	>3000	16.6		15.5		15.3	
Professional Status	Consultant Family	40.4	0.018*	42.6	0.063	42	0.012*
	Certified Family	35.1		42.6		42.5	
	Non-Consultant	17		11.2		12	
	Master Diploma	7.5		3.6		3.5	

Professional Grade	P 6-7	58.5	0.915	55.8	0.906	56	0.454
	P 8-9	28.7		28.4		28.5	
	P 10	3.1		4.4		4	
	Executive	9.7		11.4		11.5	
Non-communicable disease	Yes	37.2	0.655	36.2	0.862	36	0.711
	No	62.8		63.8		64	
Smoking	Yes	5.3	0.978	6.4	0.652	6.5	0.486
	No	94.7		93.6		93.5	
Social problems	Yes	7.6	0.090	11.3	0.535	11.1	0.158
	No	92.4		88.7		88.9	

DP-depersonalization , EE-emotional exhaustion , PA-personal achievement

**P<0.05 considered statistically significant.*

Table 4: Comparison of the mean burnout scores in terms of risk factors by Chi-square test

Questions	P value		
	High EE	High DP	Low PA
How long is the physician's commute to work in the morning?	0.799	0.539	0.773
How long is the physician's commute to work in the evening?	0.237	0.554	0.524
What is the average number of patients seen per day?	0.922	0.048	0.181
Do your patients attend on time?	0.049	0.403	0.169
Do the patients who do not attend on time bother the GP?	0.000*	0.797	0.636
Do the patients cause any interruptions in your clinic?	0.000*	0.940	0.000*
Do the team members cause any interruptions in the clinic?	0.041*	0.536	0.835
Does the GP face any pressures from patients to meet their demands?	0.000*	0.6116	0.006*
Does the GP face pressure from filling e-file to meet the ministry's needs or demands?	0.000*	0.432	0.462
Does the GP find any difficulties with I-Seha electronic work in the clinic?	0.000*	0.365	0.555
Does the GP find 8 minutes as adequate time for morning consultation?	0.000*	0.048*	0.799
Does the GP find 6 minutes as adequate time for evening consultations?	0.020*	0.003*	0.498
Does the GP work on weekends?	0.032*	0.640	0.992
Does the GP take an annual vacation on request?	0.001*	0.101	0.637
Does the GP gather with colleagues during break time?	0.572	0.668	0.173
Is there easy access to consult colleagues when needed?	0.771	0.943	0.969
Is the nursing staff in the clinic cooperative with GP when needed?	0.000*	0.190	0.979
Is the administrator cooperative with GP when needed?	0.009	0.000*	0.666
Is the doctor in charge or manager cooperative with GP when needed?	0.000*	0.913	0.382
Does the GP feel a lack of respect from patients?	0.000*	0.529	0.390
Has the GP ever regretted becoming a primary care physician?	0.000*	0.790	0.929
Does the GP perform any physical activities?	0.113	0.208	0.343
Are the GPs practicing hobbies?	0.000*	0.400	0.356
Does the GP get adequate sleep at night?	0.001*	0.562	0.056*

DP-depersonalization , EE-emotional exhaustion , PA-personal achievement

**P<0.05 considered statistically significant.*

Multiple risk factors are suspected to increase the risk of burnout among PCPs. The results showed that low PA was due to the frequent interruptions caused by patients in the clinic and the immense pressure that physicians faced to meet their patients' demands. Also, increased DP demonstrated a highly significant association between the average number of patients seen by the physician and the duration of consultations. Moreover, many factors such as being bothered by patients who did not attend on time, interruptions by patients and team members, difficulties with I-Seha (national health information system), and filling the e-file, and the duration of consultations increased the risk of EE. Practicing hobbies rarely and lack of sleep were also risk factors for high EE (Table 4).

Discussion

Burnout is considered a public health crisis, seen often in all international health care services. The prevalence of physicians' burnout has reached 48% globally.¹⁷⁻²⁰ This study showed a burnout prevalence of 41.2% among primary health care physicians, which was similar to a burnout prevalence of 41.1% in secondary care in the Kingdom of Bahrain. The high burnout among PCPs could be due to increased exposure to tremendous emotionally draining demands resulting from a heavy workload and short consultation time. PCPs need more time and energy to accommodate heavy work demands to prevent burnout from setting in.^{17,18} The process of physicians' burnout may start from the early days in medical school that have proven high levels of stress (47%) and burnout (43.3%).¹⁵ The prevalence rates of depression, anxiety, and stress (DAS) previously reported among the physicians were 38.6%, 37.6%, and 38.6%, respectively.¹⁴

It also demonstrates that primary and secondary care physicians are exposed to persistent stresses due to high patient expectations/demands and the fear of facing the judicial system.¹⁹ Work-related burnout (e.g., organizational environment, management/leadership styles, communication, etc.), personal factors (e.g., demographic characteristics, individual attitudes, and personality), and work/home support systems can also play a contributory role.^{1,12} In

this study, a significant correlation was observed between the mean score of burnout and demographic variables such as age, gender, nationality, and marital status ($P < 0.05$). Professional status was also found to influence the overall burnout rate among physicians ($P < 0.05$). Relatively older physicians, females, married, and Bahraini nationals had higher burnout scores. Similarly, few studies have drawn a statistically significant correlation between burnout level with increased age of the physician and number of working hours per day.^{18,21}

The prevalence of burnout in developed countries such as Switzerland, Italy, and France ranges from 30% to 50%; however, in developing countries such as Iran and Egypt, it is 52.9% to 63.1%, respectively, which is due to increased workload and routine duties.^{21,22} Nineteen studies on health care professionals in Arab countries found a wide range of prevalence for MBI subscales, high EE (20.0–81.0%), DP (9.2–80.0%), and low PA (13.3–85.8%) due to different burnout scale measurements.²³ The prevalence of moderate to high burnout (MBI) subscales in the present study was as follows: EE in 73.7%, DP in 100%, and PA in 83.1% of the participants. These were higher when compared to those from Iran, which were as follows: EE in 55.3%, DP in 90.5%, and PA in 98.9%.²⁴ Two studies in Egypt had shown the EE to be 62%–81%, DP was 56.1%–64.3%, and PA was 52.4%–58.2%.²⁴ Another study in Egypt among Emergency physicians and nurses found that 46.9% of them had EE, 44.9% had DP, and 97.7% had PA.¹⁸

The higher burnout subscale levels were due to high work demands, excessive workloads, clerical burden, long working hours, lack of input/control, mandatory overtime schedules, insufficient income, work-home conflicts, and poor administrative styles.¹⁸ In a study from Bahrain, 39.5% of the PCPs were found to be dissatisfied with their job.¹⁴ The prevalence rate based on the MBI subscales in 12 European family doctors was EE 15-68%, DP 12-73%, and PA 12-93%, and the total prevalence of burnout was 65%.^{24,25} These values were lower than those in the other Arabian Gulf countries, which were as follows: EE 24.2%-54 %, DP 15.7%-

48.6%, and PA 13.6%-33%.²⁶ This could be due to the fact that most PCPs in the other Arabian Gulf regions receive good remuneration packages and provide 15-20 min of consultation time. This decreases the number of patients screened per physician, proportionally enhancing the quality of patient care.²⁶

In the current study, it was found that EE correlated significantly with many demographic factors such as female gender, Bahraini nationality, marital status (married), consultant status, and absence of social problems. However, high DP was significantly associated with only physicians' salary of <3000 BD, and low PA was significantly related to the professional (consultant) status.

The principal risk factors that were found to be significantly associated with EE in Bahraini physicians are as follows: patients failed to keep the appointments, disorganized patient flow, heavy patient load, heavy e-file load, less consultation time, lack of cooperation from the staff, and lack of respect from the patients. Mostly, they regretted becoming PCPs, not being able to practice their hobbies, or not getting enough sleep. The principal risk factors that had noted to be significantly associated with DP in Bahraini physicians were high patient load, less consultation time, and uncooperative administrator. While those associated with PA were disorganized patient flow, an increase in patients' demands, and insufficient sleep.

As expounded by existing literature, the consequences of the physicians' burnout on patient care are as follows: diminished quality of patient's care, increase in medical errors, longer patient recovery time, and reduced patient satisfaction. While the impact on the health care system is significant, physicians' productivity decreases, physician turnover rates increase, patient access increases and medical costs rise considerably. Consequential circumstances that further affect the physician's health include higher rates of substance abuse, depression/suicidal ideation, poor self-care and an increase in the number of motor vehicle accidents.²⁷

Several family physicians experience greater burnout than specialists due to increased workload and additional duties. Family medicine consultants in primary health care services are often dissatisfied when they are compelled to perform their duties with limited facilities.^{18,21}

Further research is necessary for a more comprehensive understanding of the problems of burnout and psychiatric morbidity among physicians. Improvement of medical training and attention to the psychological implications of working in health care may facilitate the prevention and treatment of possible emotional problems the physicians may encounter in their careers. The emotional and mental well-being of PCPs has a direct impact on the quality of care offered to the patients.⁴ Although multiple studies have highlighted the burnout experienced by secondary care providers and surgeons, little is known about the condition of primary care providers. Hence, the current study has strived to examine this pertinent issue of burnout at the primary care level in the Kingdom of Bahrain, and therein lies its novelty.

Limitations of the study include the fact that participants were limited to mainly PCPs working in the ministry of health. The internal validity of the study is determined by its cross-sectional design involving doctors working in primary health care centers (PHCCs) only, making it difficult to understand the causal relationship.

Conclusion

Moderate to a high level of DP is the most prominent feature of overall burnouts in the physicians of the PHCCs. The main reasons include unorganized patient flow, short consultation time, fewer support services at the PHCCs, E-filing, and slow administrative transactions. Health education interventions during pre-employment training programs for the prevention of burnout syndrome and periodic screening system using the MBI questionnaire for early signs of burnout are recommended.

Conflicts of interest

None.

Sponsorship

None.

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