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Burnout syndrome among physicians working in primary health care centers in Kuwait

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Abstract *Objective:* The aim of the study was to reveal extent of burnout problem among primary care physicians and the socio-demographic factors affecting its occurrence.

Methods: The target population included all physicians working in these two health regions in Kuwait. Two hundred physicians working in the primary health care units in the selected regions agreed to participate in the study. A specifically designed questionnaire for this research was derived from Maslach Burnout Inventory (BMI). It included four domains, namely emotional exhaustion, depersonalization, personal accomplishment, and involvement. In addition, socio-demographic and work characteristics of physicians were studied and their association with burnout domains was illustrated.

Results: More than half the sample was females (56%), in the age group 30–49 (56.5%) and of non-Kuwait nationality (51%). Emotional exhaustion and depersonalization had lower percentage scores than the positive ones namely, personal accomplishment, and involvement. Physicians had

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a mean percent score of 37.1 + 29.0% on the emotional exhaustion domain, 21.0 + 22.9% on the depersonalization domain, 63.2 + 26.3% on the personal accomplishment domain, and 46.2 + 29.9% on the involvement domain. The four domains of MBI were associated only with some of the studied socio-demographic and job characteristics of the studied physicians. Nationality, place of work, job and income had a significant association with emotional exhaustion, depersonalization, and personal accomplishment domains.

Conclusion: Burnout syndrome is relatively common among Kuwaiti physicians working at the primary care level. The syndrome is more common among non-Kuwaiti physicians, general practitioners, and those with lower income. There is a need for training the physicians about how to cope with stress at work.

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1. Introduction

Burnout syndrome affects professionals providing direct help to other people. It results from excessive workload, normally after establishing high expectations and providing considerable dedication to the profession. The syndrome can be found among health care professionals.¹ Over time, some professionals can develop symptoms of emotional exhaustion, depersonalization, and feelings of lack of personal accomplishment which may have both physical and emotional outcomes as fatigue, general malaise, and symptoms of anxiety and depression.^{2,3} These manifestations can occur with various degrees of severity among the affected individuals. Several variables are associated with this syndrome, including personal characteristics, previous experience of coping with stress, and the actual consequences that the situation may have for the individual or the environment.⁴

Burnout is an increasing problem among the medical staff and is highly prevalent in the care settings. It is associated with difficult working conditions and feelings of dissatisfaction with work.⁵ Several studies have revealed a direct relationship between patient satisfaction with care and health care professionals' satisfaction with their work.⁶ Medical staff with high degrees of job satisfaction have lower rates of absenteeism, excessive changes of work location, high turnover, and poor job performance. Job dissatisfaction influences the quality of care provided, including prescribing patterns and adherence to treatment.⁷ As a result, maintaining motivation and promoting job satisfaction are considered to be important objectives of a modern health care system, in addition to providing high-quality care and ensuring patient satisfaction.⁸

In health care settings and specialties where this problem has been analyzed, more than one-third of the professionals examined were experiencing professional burnout.⁹ The effects of the syndrome reveal a real threat for the competitiveness and survival of medical specialties that appear to be losing their attractiveness for future generations on whom they depend for their professional regeneration.¹⁰

Little is known about professional burnout, job satisfaction, and motivation among physicians working in Kuwait. Few available literatures were revealed on the world wide web dealing with this problem among physicians in Kuwait.^{11,12} The current study was formulated to reveal the extent of burnout domains among physicians working in the primary and family health care units in Kuwait and identify the impact of socio-demographic and job characteristics on burnout domains.

2. Methods

An observational cross-sectional study design was adopted for this study. The study was carried out in the primary health care centers in Kuwait. Out of the five health regions of Kuwait, Capital, and Farwaniya were randomly selected to carry out this research. All physicians available in the selected regions during the field work of the study in the primary health care and family centers were the target population of this study. The total number of physicians was 378; out of these, only 200 agreed to share in the study with a response rate of 52.9%. The study covered the period August 2010 to March 2011. Data were collected over three months starting from September to December 2010.

Data of this study was collected through a specially designed questionnaire. This questionnaire consisted of two sections. The first section dealt with socio-demographic characteristics, including age, sex, nationality, marital status, number of years in practice, educational qualification, current job, and salary. History of smoking and practicing hobbies were also enquired about. In addition, one question dealt with suffering from chronic diseases such as diabetes, heart disease, and hypertension. The second section included the Maslach Burnout Inventory (MBI) that was formed of four domains. The first domain deals with emotional exhaustion and contains nine questions, the second domain involves personal accomplishment and consists of eight questions, while the third domain entails depersonalization and includes five questions, the last domain, involvement, is formed of only three questions. Thus the total inventory includes 47 questions. Each question is rated according to the frequency of occurrence on a six-point scale, from one (few times per year) to six (every day).

A pilot study was carried out on 25 physicians (not included in the final study). This study was formulated with the following objectives: test the clarity, applicability of the study tools, accommodate the aim of the work to actual feasibility, identify the difficulties that may be faced during the application, as well as study all the procedures and activities of the administrative aspects. Also, the time of interviewing the physicians was estimated during this pilot study. The necessary modifications according to the results obtained were done, so some statements were reworded. Also, the structure of the questionnaire sheet was reformatted to facilitate data collection. The average interviewing time was 15 min.

A pre-coded sheet was used. All questions were coded before data collection. This facilitates both data entry and verification as well as reducing the probability of errors during

Table 1 Socio-demographic and job characteristics of studied physicians.

Characteristic	Number	Percent
<i>Age (years)</i>		
20–29	1	0.5
30–39	113	56.5
40–49	55	27.5
50–59	22	11.0
≥60	9	4.5
<i>Gender</i>		
Male	88	44.0
Female	112	56.0
<i>Nationality</i>		
Kuwaiti	98	49.0
Non-Kuwaiti	102	51.0
<i>Marital status</i>		
Single	30	15.0
Married	149	74.5
Divorced	14	7.0
Widowed	7	3.5
<i>Number of children</i>		
0–2	69	40.6
3–5	97	57.0
≥6	4	2.4
<i>Educational level</i>		
Bachelor	49	24.5
Master	52	26.0
Doctorate	99	49.5
<i>Smoking</i>		
No	171	85.5
Yes	29	14.5
<i>Hobbies</i>		
No	120	60.0
Yes	80	40.0
<i>Place of work</i>		
Capital area	100	50.0
Al-Farwaniya area	100	50.0
<i>Type of work center</i>		
Primary health care unit	95	47.5
Family center	105	52.5
<i>Current position (job)</i>		
General practitioner	97	48.5
Assistant Registrar	1	0.5
Registrar	3	1.5
Senior registrar	55	27.5
Specialist	26	13.0
Senior specialist	9	4.5
Consultant	9	4.5
<i>Years of experience</i>		
1–4	9	4.5
5–9	79	39.5
≥10	112	56.0
<i>Salary (KD)</i>		
<1000	26	13.0
1000–1999	79	39.5
≥2000	95	47.5
<i>Chronic illness</i>		
Ischemic heart disease	4	2.0
Diabetes mellitus	19	9.5
Hypertension	23	11.5
Others	8	4.0
Total	200	100.0

Table 2 Burnout domains of studied physicians.

Burnout domains	Score*					
	1	2	3	4	5	6
<i>Emotional exhaustion</i>						
I feel emotionally drained from my work	28.5	18.5	20.0	13.5	8.0	11.5
I feel used up at the end of the work day	15.5	20.5	22.0	13.5	14.0	14.5
I feel fatigued in the morning, have to face another day on the job	25.0	20.0	22.0	7.0	13.5	12.5
Working with people is really a strain to me	31.5	20.5	16.5	11.5	9.5	10.5
I feel burned-out from my work	32.0	23.5	17.5	11.0	7.0	9.0
I feel frustrated from my job	43.0	15.5	15.5	11.5	6.0	8.5
I feel I am working too hard on my job	25.5	21.0	15.5	8.0	11.0	19.0
Working with people directly puts too much stress on me	32.5	16.0	19.0	8.5	12.0	12.0
I feel like I am at the end of my rope	42.5	18.0	11.0	10.0	8.5	10.0
Percent score: mean \pm SD (median)	37.1 \pm 29.0 (28.9)					
<i>Personal accomplishment</i>						
I can easily understand how my patients feel about things	6.5	5.0	13.5	17.0	18.0	40.0
I deal very effectively with the problems of my patients	6.0	5.0	13.5	15.5	20.0	40.0
I feel I am positively influencing my colleagues/patients lives through my work	5.5	5.0	15.5	17.0	28.5	28.5
I feel energetic	6.5	10.5	19.5	23.5	21.5	18.5
I can easily create a relaxed atmosphere with my (colleagues/patients)	8.5	10.5	17.0	14.5	23.5	26.0
I feel exhilarated after working closely with my (colleagues/patients)	13.0	12.0	20.0	19.0	23.0	13.0
I have accomplished many worthwhile things in the job	11.0	12.5	19.5	16.5	20.0	20.5
In my work, I deal with emotional problems very calmly	9.0	10.5	16.5	15.0	21.5	27.5
Percent score: mean \pm SD (median)	63.2 \pm 26.4 (65.0)					
<i>Depersonalization</i>						
I feel I treat some patients as if they were impersonal (objects)	49.5	21.0	11.0	8.5	4.5	5.5
I have become more callous towards people since I took this job	48.5	19.5	18.5	8.0	0.5	5.0
I worry that this job is hardening me emotionally	37.0	24.0	20.0	8.5	5.5	5.0
I do not really care what happens to some patients	60.0	19.5	10.0	7.0	0.0	3.5
I feel patients blame me for some of their problems	57.5	19.0	11.5	6.0	1.5	4.5
Percent score: mean \pm SD (median)	21.0 \pm 22.9 (16.0)					
<i>Involvement</i>						
I feel similar to my (colleagues/patients) in many ways	17.0	12.0	18.5	17.5	21.0	14.0
I feel personally involved with my (colleagues/patients) problems	15.5	16.5	16.5	21.0	16.5	14.0
I feel uncomfortable about the way I have treated some (colleagues/patients)	35.0	8.5	21.5	13.0	12.0	10.0
Percent score: mean \pm SD (median)	46.2 \pm 30.0 (46.7)					

Data are presented as raw%.

* 1 = few/year, 2 = monthly, 3 = few/month, 4 = weekly, 5 = few/week, and 6 = daily.

data entry. Data were fed to the computer directly from the questionnaire without an intermediate data transfer sheets. The Excel program was used for data entry. A file for data entry was prepared and structured according to the variables in the questionnaire. After data were fed to the Excel program; several methods were used to verify data entry. These methods included the following: simple frequency, cross-tabulation, as well as manual revision of entered data. Percent score was calculated for each domain of MBI. All questions of all the domains were in the same direction, whether negative or positive; thus there was no need to reverse any scores before calculating the sum of score. Each domain score was recoded to start from zero, then the percent score was calculated as sum of score multiplied by 100 and divided by the number of answered items. The sum was treated to yield a range of 100% with a minimum of zero and a maximum of 100.

All the necessary approvals for carrying out the research were obtained. The Ethical Committee of the Kuwaiti Ministry of Health approved the research. A written format explaining the purpose of the research was prepared and signed by the physician before starting the interview. In addition, the

purpose and importance of the research were discussed with the director of the health center.

2.1. Statistical analysis

Before analysis; data were imported to the Statistical Package for Social Sciences (SPSS) which was used for both data analysis and tabular presentation. Statistical analysis included descriptive measures as count, percentage, minimum, maximum, arithmetic mean, median and standard deviation, and Mann Whitney Z test as an analytic one. The level of significance selected for this study was $P \leq 0.05$.

3. Results

Table 1 shows demographic characteristics of studied physicians. More than half the sample was females (56%), in the age group 30–39 years (56.5%) and of non-Kuwait nationality (51%). The majority were married (74.5%) with a mean duration = 15.5 ± 16.9 years, and having a higher educational

Table 3 Relation between burnout domains and socio-demographic and job characteristics of physicians.

Character	Emotional exhaustion	Personal accomplishment	Depersonalization	Involvement
<i>Age</i>				
<40	32.4 ± 25.7	64.2 ± 23.1	18.9 ± 21.1	46.0 ± 29.4
≥40	43.4 ± 31.9	62.0 ± 30.3	23.8 ± 24.9	46.4 ± 30.7
<i>P</i>	0.03*	0.95	0.17	0.88
<i>Sex</i>				
Male	43.7 ± 33.0	60.5 ± 28.0	23.9 ± 23.5	45.0 ± 31.4
Female	32.0 ± 24.2	65.3 ± 25.0	18.7 ± 22.3	47.1 ± 28.8
<i>P</i>	0.04*	0.28	0.06	0.57
<i>Nationality</i>				
Kuwaiti	24.6 ± 21.5	70.8 ± 21.6	13.2 ± 15.2	49.4 ± 31.1
Non-Kuwaiti	49.2 ± 30.2	55.9 ± 28.5	28.5 ± 26.4	43.1 ± 28.5
<i>P</i>	<0.001*	<0.001*	<0.001*	0.12
<i>Marital status</i>				
Married	34.59 ± 27.697	66.17 ± 25.788	19.33 ± 22.185	41.16 ± 28.755
Single	44.53 ± 31.537	54.61 ± 26.492	25.80 ± 24.532	60.78 ± 28.679
<i>P</i>	0.078	0.005*	0.069	<0.001*
<i>Children</i>				
<3	40.3 ± 31.4	57.3 ± 30.7	21.2 ± 22.5	48.2 ± 29.2
3+	36.3 ± 28.7	66.0 ± 24.0	19.8 ± 22.6	39.3 ± 28.5
<i>P</i>	0.52	0.09	0.586	0.05
<i>Smoking</i>				
No	35.96 ± 27.731	62.30 ± 26.212	20.80 ± 22.845	45.54 ± 29.311
Yes	43.98 ± 35.196	68.71 ± 27.236	22.07 ± 23.728	49.89 ± 33.600
<i>P</i>	0.435	0.154	0.751	0.589
<i>Hobbies</i>				
No	42.8 ± 30.1	57.1 ± 27.1	24.0 ± 26.1	47.3 ± 29.6
Yes	28.7 ± 25.1	72.4 ± 22.6	16.4 ± 16.2	44.4 ± 30.5
<i>P</i>	<0.001*	<0.001*	0.12	0.47
<i>Work district</i>				
Capital	25.3 ± 22.3	69.9 ± 22.2	12.8 ± 13.0	47.9 ± 30.8
Farwaniya	48.9 ± 30.1	56.6 ± 28.6	29.2 ± 27.4	44.5 ± 29.1
<i>P</i>	<0.001*	0.001*	<0.001*	0.38
<i>Center type</i>				
PHC	50.0 ± 30.5	55.1 ± 29.0	30.5 ± 27.5	45.0 ± 29.0
Family center	25.5 ± 21.9	70.6 ± 21.4	12.4 ± 12.8	47.2 ± 30.8
<i>P</i>	<0.001*	<0.001*	<0.001*	0.52
<i>Education level</i>				
Bachelor	47.4 ± 29.4	62.5 ± 26.2	28.3 ± 30.9	40.5 ± 33.8
Higher	33.8 ± 28.1	63.5 ± 26.5	18.6 ± 19.2	48.0 ± 28.5
<i>P</i>	0.002*	0.73	0.25	0.11
<i>Job</i>				
GP	49.2 ± 30.3	56.0 ± 29.0	29.1 ± 27.6	44.0 ± 29.4
Specialist	25.7 ± 22.5	70.1 ± 21.7	13.3 ± 13.6	48.2 ± 30.4
<i>P</i>	<0.001*	0.001*	<0.001*	0.26
<i>Experience (years)</i>				
<10	34.7 ± 26.1	63.9 ± 24.1	22.3 ± 26.1	49.0 ± 29.4
10+	39.1 ± 31.1	62.7 ± 28.2	19.9 ± 20.2	43.9 ± 30.2
<i>P</i>	0.52	0.97	0.85	0.27
<i>Income (KD)</i>				
<2000	48.9 ± 30.0	56.9 ± 28.6	29.1 ± 26.9	44.6 ± 29.2
≥2000	24.1 ± 21.2	70.2 ± 21.8	12.0 ± 12.5	47.9 ± 30.8
<i>P</i>	<0.001*	0.001*	<0.001*	0.37
<i>Chronic disease</i>				
No	34.5 ± 27.7	64.0 ± 24.9	21.0 ± 23.9	44.1 ± 29.8
Yes	46.1 ± 31.7	60.6 ± 31.2	20.8 ± 19.2	53.3 ± 29.7
<i>P</i>	0.03*	0.84	0.61	0.06

* Significant, $P \leq 0.05$, Mann-Whitney test.

certificate than a bachelor degree (75.5%). Most of the physicians were non-smokers (85.5%). For smokers, the mean years of smoking was 18.2 ± 6.2 , the mean number of cigarettes per day was 15.7 ± 6.2 . Only a few suffered from chronic illness, namely ischemic heart disease (2.0%), diabetes mellitus (9.5%), and hypertension (11.5%). Slightly more than half (52.5%) were affiliated to a family health center, and 22% were specialists or higher. The majority (56%) spent 10 or more years in the current job.

Table 2 demonstrates response of physicians to the four domains of MBI, question by question by percentage of response for each degree of the score of item. In general, negative domains namely, emotional exhaustion and depersonalization had lower percentage scores than the positive ones namely, personal accomplishment and involvement. Physicians had a mean percent score of $37.1 \pm 29.0\%$ on the emotional exhaustion domain, $21.0 \pm 22.9\%$ on the depersonalization domain, $63.2 \pm 26.4\%$ on the personal accomplishment domain, and $46.2 \pm 29.9\%$ on the involvement domain.

Table 3 shows relationship between socio-demographic and job characteristics and the four domain of MBI. Males, non-Kuwaitis, aged 40 or more years, with no hobby and suffering from at least one chronic disease were significantly suffering from emotional exhaustion. Also general practitioners, working in a primary health care center, holding only a bachelor degree and spending more than 10 years at work were significantly more likely to suffer from emotional exhaustion. Non-Kuwaiti, general practitioner, affiliated to a primary health care center, working in Farwaniya physicians were significantly more liable to suffer from depersonalization. Those have significantly higher personal accomplishment mean percent score were more likely to be encountered among the married, Kuwaiti, affiliated to family center, working in Capital health area, specialist, with hobbies, and higher income physicians. Involvement domain did not show any significant relation with the socio-demographic or job characteristics of physicians except for the marital status where single physicians had a significantly higher mean percent involvement score than the married ones.

4. Discussion

Occupational stress has been recognized as a problem for physicians working in health care facilities.⁹ The term burnout has come to mean a combination of emotional exhaustion, feelings of depersonalization, and perceived lack of personal accomplishment.¹⁰ A survey of rural family physicians in 2001 showed a self-reported burnout rate of 55%.¹³

The stresses of family practice are well known. The challenges most frequently mentioned include paperwork; feeling undervalued; long waits for accessing specialists, diagnostic tests, and community resources; difficult patients; and medico-legal issues.¹⁴⁻¹⁸ Changes in policy and practice seem to have contributed to high levels of stress and burnout in the medical profession and have brought about a loss of autonomy, diminished prestige, and deep dissatisfaction.^{19,20} Professionally desirable personality traits, such as a desire for high achievement and perfectionism, could also have contributed to high rates of depression and burnout among physicians.^{21,22}

The current study was formulated to study the extent of burnout syndrome among primary health care workers and reveal the personal and job factors affecting the burnout

domains. The results of the current study showed that physicians administering first level of medical care had a relatively low mean percent score of emotional exhaustion ($37.1 \pm 29.0\%$) and depersonalization ($21.0 \pm 22.99\%$) domains, while they had a mean score of $63.2 \pm 26.4\%$ and $46.2 \pm 29.9\%$ for personal accomplishment and involvement burnout domains respectively. The results of the previous studies are controversial, while some studies revealed alarming high rates of burnout among physicians,²³ other studies revealed lower rates.²⁴ These differences might be attributed to differences in the developmental and structural constitution of the health care delivery system including suffering from numerous structural and service delivery problems including poor quality of services, low staff morale, low efficiency, underutilization, lack of rationalization of service usage, and lack of equity in the distribution of facilities and manpower.²⁵

Some demographic characteristics are presumed to be stable over time and are thought to precede the onset of burnout. In some studies, however, few demographic factors seem to be associated with burnout. Contrary to expectation, however, none of these studies has demonstrated a higher risk or differential effect of burnout for women.²⁶ The results of the current study confirm these findings. Men were, generally, suffering from higher emotional exhaustion, depersonalization and less personal accomplishment and involvement.²⁷ However, significant differences are revealed only on the emotional exhaustion domain. The findings of Woodside and his colleagues goes hand in hand with the results revealed in this study.²⁸

Single physicians in this study had significantly lower mean score on the personal accomplishment domain than the married ones. Also, they tended to have higher rates of emotional exhaustion and depersonalization yet, these differences were not statistically significant. Social support of the spouse might play a buffering effect to protect the adverse life events and protects against burnout. This social support might also be behind the higher rates of emotional exhaustion and depersonalization of the non-Kuwaiti physicians and their lower rates of personal accomplishment and involvement.²⁹

The relationship between job characteristics and burnout was explored in the current study. Family physicians as well as those working in the family health centers tended to have significantly lower mean score on both the emotional exhaustion and depersonalization domains and a higher score on the personal accomplishment domain. This means that they suffer less degrees of burnout than those working in the primary health care centers and the general practitioners. Also specialist and those earning higher salaries showed a similar pattern. Workload in addition to the average number of patients examined daily might be behind these differences as revealed in other studies.³⁰

This study, as a cross sectional one, does not allow for observing a causal relationship between the final outcome, namely burnout, and the factors that might affect its occurrence among physicians. Another limitation of this study could be attributed to low response rate with a possibility of a bias arising from returning the questionnaire of those with less degrees of burnout.

In view of the findings of the current study it can be concluded that training of physicians in coping strategies is necessary to help them overcome these stressors in the workplace. Health reform should include all aspects of the managerial and structural processes as well as providing all the necessary

resources to eliminate all sources of stress in the workplace, especially in the primary health care centers. Future research is needed to explore the problem in depth, develop models to describe the phenomenon and to identify causative factors and effective intervention strategies. Job satisfaction is an important element in such research, and it should be prioritized.

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