Prevalence and determinants of burnout syndrome among primary healthcare physicians in Qatar

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Keywords: burnout syndrome; primary healthcare; physician; Qatar; prevalence; determinants

Abstract

Background: General practitioners (GPs) in particular are prone to developing burnout syndrome, as they are frequently overloaded with the demands of caring for sick patients. This study was conducted to estimate the prevalence of burnout syndrome among primary healthcare physicians in Qatar, and to identify its determinants.

Methods: A cross-sectional survey targeting all GPs working in 21 primary healthcare centres in Qatar was conducted by using a self-administered Astudillo and Mendinueta questionnaire that covered socio-demographic data and job characteristics of the physician. It included a list of symptoms of burnout syndrome. Burnout syndrome assessment scores were calculated as a summation of answers to all 16 items, with a total minimum score of 0 and a total maximum score of 48. Physicians who scored more than 19 were classified as burned out.

Results: Out of the 230 GPs recruited, 183 responded, which represents a response rate of 79.5%. Of all the GPs, 12.6% were burned out. The burnout syndrome was higher among female GPs (28.1%) than male GPs (6.9%). This difference was statistically significant (p-value < 0.001). In terms of nationality, 37.8% of the Qatari GPs were burned out, compared to 11.6% of the foreign GPs (p-value < 0.004). Burnout syndrome was reversibly associated with years of experience and age. Fatigue, the use of analgesics and irritability were the most common symptoms.

Conclusion: Burnout syndrome is common among female and young GPs working in primary healthcare centres in Qatar. The improvement of GPs' coping skills and their work conditions are recommended to prevent burnout.

Ⓟ **Peer reviewed. (Submitted: 2010-10-05, Accepted: 2010-12-20). © SAAFP** **S Afr Fam Pract 2011;53(4):380-383**

Introduction

The general practitioner (GP) is primarily responsible for providing comprehensive health care to every person seeking medical care, and arranging for other healthcare personnel to provide services when necessary, irrespective of race, culture or social class.[1]

According to the nature of primary healthcare services, GPs are involved in the management of a wide spectrum of both physical and psychological health problems. They provide diagnosis and treatment, health protection, promotion and coordination of care on behalf of patients. These roles are fulfilled in their offices, as well as in hospitals, homes, nursing homes and other community facilities. This style of extremely busy and widely variable practice may put the GP at risk of burnout syndrome.[2,3]

To date, there is no generally accepted definition of burnout or binding diagnostic criteria for burnout syndrome. In general, it is regarded as a disease of modern society. According to the most common description at present: "Burnout syndrome is a syndrome of emotional exhaustion, depersonalisation and lack of personal accomplishment, which can arise in individuals who work with people. It is a reaction to the chronic emotional stress of having to continuously deal with people, especially when these people have problems or need help".[4]

Burnout, as a syndrome, is present in many individuals under constant pressure. GPs, in particular, are frequently overloaded with the demands of caring for sick patients. The symptoms and signs of burnout include emotional exhaustion, cynicism, perceived clinical ineffectiveness and a sense of depolarisation in relationships with workers, patients, or both.[5]

Burnout has been associated with impaired job performance and poor health, including headaches, sleep disturbances, irritability, marital difficulties, fatigue, hypertension, anxiety, depression and myocardial infarction, and may contribute to alcoholism and drug addiction. Symptoms of burnout can lead to physician errors, and these errors can in turn contribute to burnout. Dissatisfaction and distress have

significant costs, not only for physicians and their families, but also for patients and healthcare organisations.[5]

The State of Qatar is located in the Arabian Gulf, and in 2009, had an estimated population of more than 1.6 million.[6] Its primary healthcare services are provided through a network of 21 primary healthcare centres distributed across the country. There are 253 physicians working at these centres. These physicians include physicians certified by the family medicine board, as well as uncertified physicians. There is no available information on burnout syndrome among primary healthcare GPs in Qatar. Therefore, this study was designed to estimate the prevalence of burnout syndrome in this group, and to identify its determinants.

Methodology

For this cross-sectional survey, all primary healthcare physicians working in healthcare centres in Qatar were recruited, and ethical approval was obtained from the Medical Research Center. The tool used in this study was a validated version of the Astudillo and Mendinueta questionnaire, which was distributed to the physicians participating in the study. The questionnaire was divided into three parts. The first covered the socio-demographic data and job characteristics of the physician; for example age, sex, nationality, marital status, highest medical qualification and years of experience. The second contained a list of symptoms of burnout syndrome (16 items).[7] The third contained questions to assess the effects of burnout syndrome on the physicians' work and suggestions for alleviating professional stress.

The questionnaires were distributed to all physicians after explaining the contents, aim and possible outcome of the study. To answer each question, participants had to choose one word from four words. These four words represented a gradual score that ranged from 0 to 3, in which "never" scored 0, "often" 1, "sometimes" 2 and "permanently" 3. The participants were not aware of the scoring system. The burnout syndrome assessment scores were calculated as a summation of answers to all 16 items, with a total minimum score of 0 and a total maximum score of 48. Physicians who scored more than 19 were classified as burned out.

Data entry and statistical analysis were done using the Epi-Info 6.04 computer software package. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Quantitative continuous data were compared using the student T-test for comparisons between the two independent groups. Qualitative variables were compared using the chi-square test or the Fisher exact test. Pearson's correlation analysis was used for assessment of the interrelationships among quantitative variables. To assess the relationship between scores of burnout syndrome as dependent factors, on the one hand, and various personal and job factors as independent factors, on the other hand, multiple stepwise backward linear regression analysis was used, and analysis of variance for the full regression models was undertaken. Statistical significance was considered at p-value < 0.05.

Results

Out of the 230 GPs who received the questionnaire in the 21 centres, 183 GPs responded, representing a response rate of 79.5%. Table I presents the demographic characteristics of the GPs who participated in the study. Ninety-three of them (50.8 %) were male, 95 (51.9%) were above 44 years of age, and only 37 (20.2%) were Qatari. Most of the participants were married, 170 (92.9%). Approximately one-third of the physicians, 61 (33.3%) were certified by the family medicine board, and 72 GPs (39.9%) had more than 20 years' experience in clinical practice.

Table I: Demographic characteristics of primary healthcare physicians participating in the study

Variable	n (%)
Gender	
Male	93 (50.8)
Female	90 (49.2)
Nationality	
Qatari	37 (20.2)
Non-Qatari	146 (79.8)
Age	
< 35 years	34 (18.6)
35-44 years	54 (29.5)
≥ 44 years	95 (51.9)
Marital status	
Single	8 (4.4)
Married	170 (92.9)
Divorced	4 (2.2)
Widowed	1 (0.5)
Profession	
GP not certified in family medicine	122 (66.7)
GP certified in family medicine	61 (33.3)
Years of experience	
≤ 10 years	51 (27.9)
11-20 years	60 (32.8)
≥ 20 years	72 (39.3)

As regards prevalence of burnout syndrome among the physicians (scores above 19 points), 12.6% of all them were burned out. The burnout syndrome was higher among female GPs (28.1%) than male GPs (6.9%). This difference was statistically significant (p-value = 0.001). In terms of nationality, 37.8% of the Qatari GPs were burned out, compared to 11.6% of the foreigner GPs (p-value = 0.004, as shown in Table II).

Results showed that burnout syndrome was reversibly associated with years of experience and age. Of those with less than 10 years of experience, 21.6% were burned out, compared to only 6.9% of those working for more than 20 years. This difference was statistically significant (p-value = 0.023). In terms of age, burnout was higher among young

Table II: Association of demographic characteristics and prevalence of burnout syndrome

Variable	Burnout syndrome n (%)	p-value
Gender		
Male	5 (6.9)	
Female	18 (28.1)	0.001
Nationality		
Qatari	14 (37.8)	0.004
Non-Qatari	17 (11.6)	
Age		
< 35 years	14 (41.2)	
35-44 years	12 (22.2)	0.000
≥ 44 years	3 (3.2)	
Current marital status		
Unmarried	2 (15.4)	0.631
Married	22 (12.9)	
Professions		
GPs not certified in family medicine	17 (13.9)	0.269
Family medicine certified practice	11 (18)	
Years of experience		
< 10 years	11 (21.6)	0.023
10-20 years	10 (16.7)	
≥ 20 years	5 (6.9)	

GPs. While 41.2% of the GPs below 35 years of age, and 22.2% aged 35-44 years, were burned out, only 3.2% of GPs over 44 years had burnout syndrome. Again, this difference is statistically significant (p-value = 0.00001).

Table III: Percentage of symptoms of burnout syndrome among GPs in Qatar

Symptom	Never n (%)	Often n (%)	Sometimes n (%)	Always n (%)
Irritability	30 (17.9)	121 (72.0)	12 (7.1)	5 (3.0)
Debility	56 (33.3)	89 (53)	18 (10.7)	5 (3.0)
Self-criticism	37 (22.0)	87 (51.8)	42 (25.0)	2 (1.2)
Insomnia	54 (32.1)	92 (54.8)	21 (12.5)	1 (0.6)
Fatigue	8 (4.8)	120 (71.4)	32 (19.1)	8 (4.8)
Spinal problem	60 (35.8)	77 (45.8)	26 (15.5)	5 (3.0)
Lack of organisation	67 (39.9)	73 (43.5)	21 (12.5)	7 (4.2)
Lack of sense of priority	68 (40.5)	76 (45.2)	18 (10.7)	6 (3.6)
Depressive states	54 (32.1)	92 (54.8)	15 (8.9)	7 (4.2)
Feeling of failure	82 (48.8)	70 (41.7)	12 (7.2)	4 (2.4)
Painful symptoms	40 (23.8)	107 (63.7)	19 (11.3)	2 (1.2)
Social isolation	92 (54.8)	58 (34.5)	13 (7.7)	5 (3.0)
Poor concentration and performance	68 (40.5)	87 (51.8)	10 (6.0)	3 (1.8)
Less caring attitude	108 (64.3)	50 (29.8)	10 (6.0)	0 (0.0)
Problem with rest of team	86 (51.2)	74 (44.0)	7 (4.2)	1 (0.6)
Dissatisfaction with work	51 (30.4)	94 (56.0)	15 (8.9)	8 (4.8)
Change of profession	143 (85.1)	15 (8.9)	10 (6.0)	0 (0.0)
Consume analgesics	18 (10.7)	112 (66.7)	38 (22.6)	0 (0.0)
Consume sedative	140 (83.3)	22 (13.1)	6 (3.6)	0 (0.0)

Only the prominent complaints, in other words symptoms that were present often and permanently in 50% or more GPs, were taken into account with regard to professional stress analysis symptoms (Table III). Fatigue (94.6%) was the most common symptom, followed by use of analgesics (89.3%), irritability (81.1%), dissatisfaction with work (69.6%), self-criticism (78%), depressive symptoms (77.9%) and insomnia (77.9%), while considering changing profession and using sedatives were uncommon (14.9% and 16.6% respectively).

Discussion

Over the last 30 years, many studies have focused on burnout syndrome as a workplace health phenomenon, and a considerable number of studies have assessed this condition in the healthcare field. With the absence of any information in Qatar, this study was conducted to estimate burnout syndrome among primary healthcare physicians working there. This study showed that 12.6% of the GPs have symptoms of burnout syndrome. This level is lower than what has been reported in previous international studies.[8,9] For example, in one study, the prevalence of burnout among Danish GPs was almost double (at 25%) than the prevalence reported in this study.[10] This difference can possibly be explained by the variation in the culture, or the nature of the healthcare system in the two specific countries, which include aspects such as patients' attitude and the role of GPs as the first line of healthcare providers.[11]

The different scales used in different studies on burnout syndrome (acceptable as burnout can be measured in this way), invariably leads to variations in the results of the different studies. For instance, in the studies that used another scale, such as the Maslasch Burnout Inventory (MBI), which values the three syndrome subscales of emotional exhaustion, depersonalisation and lack of personal accomplishment, the prevalence of burnout syndrome was higher compared to what we have reported in this study. Burnout syndrome among Spanish GPs, measured by the MBI , showed that 59.7% of the GPs showed high levels of burnout (emotional exhaustion), 36.1% (depersonalisation), and 31.2% (lack of personal accomplishment).[8] Moreover, a Hungarian study reported that the prevalence of burnout is high among GPs, almost all of whom reported experiencing a low degree of personal accomplishment. Emotional exhaustion, depersonalisation and low personal accomplishment were cited by approximately 30, 60 and 100% of the GPs, respectively.[9]

In correlation with previous studies,[12,13] our study found that female GPs suffer from burnout syndrome more than male GPs. It is well documented that the female gender is considered a determinant for developing burnout syndrome among different healthcare workers such as physicians,

nurses and medical technicians.[14,15] In Norway, a study found that female GPs experienced higher job strain and experienced psychosomatic disorders, while taking periods of sick leave more often.[16]

The present study showed that GPs under the age of 40 years, as well as new GPs with only a few years of experience, have a higher level of burnout syndrome. Several studies[17–19] have also indicated this relationship. For example, in their longitudinal study, Mirvis et al[17,18] discovered that physicians' younger age predicted the development and progression of burnout. Meanwhile, studies on physicians in different specialties, for example GPs, emergency physicians and obstetricians, have revealed an inverse association between age and burnout.[12,19,20,21]

Other factors that correlated with burnout were related to the nature of work, trainee status, longer working hours, weekend shifts and shift work. All these factors are present in primary healthcare practice, as most junior GPs are either in a training programme and work during weekends, or, as board-certified GPs, are obligated to do shift work, as Qatar's primary healthcare centres operate two stints (morning and evening).[22]

Interestingly, our study showed that Qatari GPs have higher levels of burnout compared to expatriate GPs. However, possible factors which can induce burnout syndrome in GPs are mainly work related, such as work overload in primary health care and payment discrepancies between board-certified GPs and hospital specialists.

The current study showed, as previous studies have,[4,7] that physical and psychological symptoms relating to burnout syndrome, such as fatigue, irritability, insomnia and depressive symptoms, are common among GPs. It also indicated that job dissatisfaction was common and affects 70% of GPs in Qatar. However, the majority of GPs (85%) did not consider changing their profession.

Limitations

One of the current study's limitations was that it did not include information on the number of patients seen by each GP, as this cannot be estimated in some centres because of lack of effective information systems. In addition, the method of questioning GPs via questionnaire makes it difficult to ascertain the reliability of such information. A further limitation is that the quantitative design of this research constrained the investigation regarding causes of burnout, which could have been investigated in a qualitative study.

Conclusion

In conclusion, the level of burnout syndrome among GPs in Qatar is less than the international level in other developed countries. Female, young and Qatari GPs were affected by higher rates of burnout symptoms. Based on the findings, it is recommended that, when commencing their residencies, Qatar GPs are trained to acquire coping skills that may decrease burnout. At organisational level, the primary healthcare system should adopt some organisational intervention that may help to decrease burnout among GPs, such as decreasing the workload and increasing social support for staff outside of working hours. It is recommended that another qualitative study be conducted to investigate the in-depth factors related to burnout syndrome.

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