

Prevalence of burnout syndrome and its related risk factors among physicians working in primary health care centers of the Ministry of Health, Al Ahsa region, Saudi Arabia, 2018–2019

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ABSTRACT

Burnout syndrome (BS) is a relatively common occupational problem. It is a psychological and behavioral syndrome described by three dimensions: emotional exhaustion (EE); depersonalization (DP); and low personal accomplishment (PA). **Objectives:** This study aims to calculate the prevalence of BS and its related risk factors among physicians of primary health care centers (PHCCs) of the Ministry of Health (MOH, Al Ahsa, Saudi Arabia). **Materials and Method:** A cross-sectional study was conducted in which 280 physicians working in PHCCs were selected as a comprehensive sample, the response rate was 80.7%. We excluded the trainee of residency programs, interns, and hospital physicians providing partial service in PHCCs. The data was collected by using two-part self-administered questionnaire including sociodemographic data, working conditions, and Maslach Burnout Inventory™-Human Services Survey for Medical Personnel—MBI-HSS (MP). This data was analyzed using Statistical Package for Social Sciences (SPSS) program. **Results:** The mean score for EE was 24.99 ± 11.54 SD. The mean score for DP was 9.19 ± 6.13 SD. For PA, it was 29.41 ± 9.9 SD. The percentage of participants who scored high in EE was 47.3%. About one-half of the participants scored high DP and 59.7% had diminished PA. About one-quarter of the participants (24.3%) scored high burnout in all three dimensions. High EE was present in ages from 35 to 45 years, Saudi participants, rotating or covering physicians, and participants who were satisfied with their job. High DP was seen in Saudi physicians, family physicians, rotating or covering physicians, those who were not satisfied with their job, and physicians who work in rural areas. Low PA was seen in physicians who were not satisfied with their job, rotating or covering physicians, participants who do not have tasks other than clinical work, and physicians who work in Omran sector. **Conclusion:** There is a significant level of burnout among physicians working in PHCCs in Al Ahsa. High burnout was associated with some risk factors. Further research is needed to study this problem in depth.

Keywords: Burnout, physicians, primary health care

Introduction

Burnout syndrome (BS) is a relatively common occupational problem. It has a wide range of symptoms including exhaustion, frustration, anger, and negative attitudes toward work and

patients.^[1] It is a psychological and behavioral syndrome described by three dimensions: emotional exhaustion (EE); depersonalization (DP); and low personal accomplishment (PA). EE appears when a professional feels drained, emptied, or consumed. DP surfaces when an employee loses the feeling of his/her own identity in relation to others in his/her work, while PA appears as a lack of efficacy.^[2]

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Generally, BS results from prolonged exposure to chronic stressors in the workplace,^[3] but there are many organizational factors that contribute to burnout including excessive workload, inadequate rewards, and poor interpersonal relationships. Health care professionals such as physicians and nurses are more prone to develop BS because they deal with emotionally demanding situations and are exposed to clients' psychosocial problems.^[4]

BS has been shown to have adverse outcomes on occupational indicators such as job performance, job satisfaction, frequent absence, and staff turnover.^[5] Moreover, BS symptoms have been linked to different types of mental and physical problems such as depression, insomnia, and gastrointestinal problems.^[6] The satisfaction of physicians in an organization will help with the retention of staff, saving the huge cost of staff and physician turnover.^[7] Attention to physician's well-being encourages patient safety and decreases the probability of errors.^[8]

Primary health care centers (PHCCs) are an essential part of the health care system. They provide comprehensive services including disease prevention, management, treatment, and rehabilitation. Health care providers should be competent, effective, and motivated to provide high-quality care.^[9]

Employees who work in a stressful environment are more prone to burnout. Physicians and other health care providers work in a stressful environment because they have to take care of their patients, and they have to react physically and emotionally to patients' problems.^[9]

It is found that burnout negatively affects the care provided to the patients by reducing empathy and other communication skills such as positive attitude and listening skills which are important parts of patient care for all physicians, especially primary care physicians.^[10] Also, burnout negatively affects patient safety and it can be associated with more medical errors.^[10,11] For these reasons, it is important to pay attention and study burnout and its risk factors among primary care physicians.

Literature Review

Physician burnout is considered to be an epidemic and it has negative effects on medical care and patient safety. It has been estimated that one in every three physicians will have burnout at any given time.^[12] Throughout the previous decade, many studies have been conducted on the prevalence and risk factors of burnout among medical staff.^[13-35] The extent of burnout may vary depending on the practice setting, specialty, and work environment. Some research was conducted in hospital settings,^[13-15,31,32] while others were done in PHCCs. Burnout affects all medical staff including physicians,^[16-30] nurses,^[15] pharmacists,^[33,34] and lab technicians.^[15,35] Most of the studies used Maslach Burnout Inventory (MBI) as a research tool,^[13-15,17-28] and some studies used other tools such as single-item scale for burnout^[16] and Astudillo and Mendinueta questionnaire.^[29]

Worldwide prevalence of burnout among PHC physicians varies from one country to another; ranging from 3.7% to 54.1%.^[9,16-24,36] Throughout our literature review, we found that most of the studies in the Middle East and Arab countries were done among physicians working in hospitals and^[13-15,31,32] only a few studies were done in PHCCs. The prevalence of overall burnout among PHC physicians in Arab countries was ranging from 12.6% to 41.94%. High EE burnout ranges from 23.2% to 69.5%. High DP burnout ranges from 13.8% to 38.9%. Low PA burnout ranges from 18.7% to 28.5%.^[25-30]

The studies done worldwide showed that BS was higher among men with DP and women with EE,^[17] those with more than 5 years of working experience,^[18] younger age physicians, those who have excessive hours of work, and those with job dissatisfaction.^[20]

The studies done in Arab countries showed that BS was higher among female physicians,^[29] younger age physicians,^[25,26,29] those who worked more than 5 years,^[25] unsatisfied physicians,^[26] those who have fewer years of experience,^[29] married, not exercising, and nonsmokers.^[28]

In Saudi Arabia, a few studies were done on BS among PHC physicians.^[25-27] A study was conducted in 16 PHCCs of Riyadh Military Hospital, in which 144 physicians were included. They used two questionnaires as research tools: the first questionnaire included questions regarding demographic data (age, gender, marital status, years since qualification as a doctor, years in current workplace, earning, working conditions "working hours per week, patients seen per week, night shifts, weekends worked," intention of changing the job, sick leave utilization, sleep patterns, and smoking) as well as MBI-Human Services Survey (HSS). The results showed that 53.5% of respondents scored high for EE burnout, 38.9% for DP, and 28.5% for PA, with 2.78% scoring high burnout in all the three dimensions. They found significant associations between EE high burnout and job satisfaction (higher in unsatisfied doctors, 88.5%), intention to change job (higher in those considering changing their jobs, 80%), and age (higher in ages below 34, 65%). High DP in burnout was associated with physicians taking psychotropic drugs (80%).^[26]

Another study was conducted in PHCCs in Asir province, in which 370 physicians were included. They used a self-administered questionnaire which included the MBI as well as data on the demographic and professional characteristics (i.e. age, sex, nationality, salary, qualification, specialty, years of experience after qualification, duration of work at the health facility, and the number of working days per week). Out of 370 physicians, 29.5% reported high EE, 15.7% high DP and, 19.7% low PA, with 6.3% scoring high in all the three dimensions. High EE score was associated with younger age, Saudi nationality, and salary of 15,000–20,000 SAR. Physicians who had more working days and those who had longer duration of annual vacation were less likely to report EE. High DP score was associated with Saudi nationality, working for 5–15 years, and salary >20,000 SAR. Low

PA score was associated with younger age, non-Saudi nationality, working for ≥ 5 years, and more annual vacation.^[25]

There was a study done in Jeddah to measure burnout of physicians working in PHCCs under the Ministry of Health (MOH). They had enrolled 246 physicians in their study. The majority of those physicians were general practitioners and family physicians (66.7% and 21.1%, respectively). Dentists and other specialties were only 12.2%. The results showed that the prevalence of burnout among the physicians working in PHCCs was 25.2%. Out of 246 physicians, 69.5% reported high EE, 26% high DP, and 12.2% for low PA.^[27]

Objectives

Primary (general) objectives

To calculate the prevalence of BS and its related risk factors among physicians of PHCCs of MOH, Al Ahsa, Saudi Arabia.

Secondary (specific) objectives

- 1- To calculate the prevalence of BS among physicians of PHCCs of MOH, Al Ahsa, Saudi Arabia.
- 2- To study the risk factors of BS among physicians of PHCCs of MOH, Al Ahsa, Saudi Arabia.

Materials and Methodology

Study sitting and time

PHCCs of MOH, Al Ahsa, Saudi Arabia

From March 2018 to August 2019.

Study design

Prospective analytical cross-sectional study during the specified period.

Study population

Physicians of PHCCs of MOH, Al Ahsa, Saudi Arabia during the specified period.

Inclusion criteria

All physicians of MOH PHCCs, Al Ahsa, Saudi Arabia during the specified period.

Exclusion criteria

Trainee of residency programs, interns, hospital physicians providing partial service in PHCCs.

Study variables

Dependent variables

Prevalence of BS.

Independent variables

Sociodemographic data, working conditions, MBI-HSS (MP).

Sampling

Sample size

The sample size is 280 physicians.

Sampling technique

Comprehensive sample.

Data collection tool and technique

A two-part questionnaire including sociodemographic data, working conditions, and MBI-HSS (MP).

MBI-HSS (MP): The MBI-HSS (MP) is derived from the Human Services Survey specifically for medical personnel which is validated by the extensive research that has been conducted in more than 35 years since its initial publication.^[37]

The MBI-HSS (MP) of 22 statements of job-related feelings describing the frequency as: never; a few times a year or less; once a month or less; a few times a month; once a week; a few times a week; or every day addresses three scales as follows:

- EE measures feelings of being emotionally overextended and exhausted by one's work.
- DP measures an unfeeling and impersonal response toward patients.
- PA measures feelings of competence and successful achievement in one's work.^[37]

Data management

Collecting the data from participants, coding, sorting, and storing.

Plan for data analysis

We used SPSS software for data entry, data analysis, and inference.

A confidence interval of 95% was chosen and the level of significance was set at <0.05 throughout the study.

The appropriate test for the appropriate variables was conducted.

The mean and standard deviation for continuous variables and frequencies (percentages) for categorical and qualitative variables were calculated.

Chi-square test: for assessment of association between categorical variables.

Univariate regression analysis was used with BS as the dependent variable and the associated risk factors as independent variables.

Student *t*-test for comparison between two different means used.

Study strength

According to our literature review, it is one of the few studies done in Saudi Arabia and no similar study has been done in Al Ahsa region or eastern province.

It includes all physicians of PHCCs, MOH, and Al Ahsa.

Results

Section 1: Demographic variables

226 participants were enrolled in this study, half of them were of ages between 25 and 35 years. The subjects comprised participants with varied backgrounds. The sociodemographic variables of the study sample are shown in Table 1. The majority (88.1%) were married. Men outnumbered the women (68% vs. 32%) as shown in Figure 1. The subjects were mostly general practitioners (56.2%), followed by dentists (20.8%). The rest were from other specialties like family medicine, obstetrics and gynecology, and others [Figure 2].

Table 1 shows that about three-quarters of the participants (74.3%) were Saudis; the majority of the participants (85.8%) were residents.

In addition, one-quarter of the participants (24.8%) were working for more than 10 years in PHCCs, and 80.5% of the participants never smoked.

About two-thirds of the participants (61.1%) were earning between 10,000 and 20,000 SAR per month, and the area of working for 90.3% was urban. Two-thirds of the participants (68.6%) stated that they were fixed in one PHC, 78.4% of the participants stated that the average number of patients seen per day was less than 60 patients. One-third (33.1%) of the participants were satisfied with their job, 41.6% of the participants stated that they had tasks other than clinical work.

Section 2: Questionnaire results

First: Overall score results

Table 2 shows that the mean score for the EE part of the questionnaire was 24.99 ± 11.54 SD, for DP part it was 9.19 ± 6.13 SD, and the mean score for PA part was 29.41 ± 9.9 SD.

Table 3 shows the frequencies and percentages for the levels of each part of study questionnaire. The percentage of participants who scored high in the EE part was 47.3%, in addition, about half of the participants scored high in DP part, and 59.7% had diminished PA. About one-quarter of the participants (24.3%) scored high level of burnout in all three dimensions (high EE, high DP, and low PA).

Table 4 shows the relationship between each part of the questionnaire and demographic variables. For the EE part, a high score was seen in ages from 35 to 45 years ($P = 0.023$), Saudi participants got higher scores than non-Saudi participants ($P = 0.004$).

In addition, rotating or covering physicians got higher scores than those who were fixed in one PHC ($P = 0.016$), participants who got high scores were more satisfied than other participants ($P = 0.0001$).

Table 1: Sociodemographic variables frequencies and percentages (n=226)

Variables	Categories	n	Percentage
Age in Years	25 to less than 35	128	56.6
	35 to less than 45	59	26.1
	45 to less than 50	26	11.5
	50 and above	13	5.8
Gender	Male	154	68.1
	Female	72	31.9
Nationality	Saudi	168	74.3
	Non-Saudi	58	25.7
Marital status	Single	24	10.6
	Married	199	88.1
	Widowed	1	0.4
	Divorced	2	0.9
Job title	Resident	194	85.8
	Specialist	31	13.7
	Consultant	1	0.4
Specialty	General practice	127	56.2
	Family medicine	41	18.1
	Ob/Gyn	5	2.2
	Dental	47	20.8
Years working in primary health care centers (PHCCs)	5 years or less	94	41.6
	6-10 years	76	33.6
	greater than 10 years	56	24.8
	Others	6	2.7
Smoking status	Nonsmoker	182	80.5
	Ex-smoker	17	7.5
	Current smoker	27	11.9
Earning (per month)	Less than 10,000 SAR	27	11.9
	10,000 to 20,000 SAR	138	61.1
	More than 20,000 SAR	61	27.0
Sector	Omran	80	35.4
	Mubaraz	88	38.9
	Hofuf	58	25.7
Area of working	Urban	204	90.3
	Rural (Hijrah)	22	9.7
Duty Status	Fixing in one PHC	155	68.6
	Rotating or covering	71	31.4
Average number of patients seen per day	Less than 40 patients	93	41.2
	40 to 59 patients	84	37.2
	60 to 79 patients	38	16.8
	80 and above patients	11	4.9
Job satisfaction	Not satisfied	25	11.1
	Neutral	126	55.8
	Satisfied	75	33.2
Tasks other than clinical work (e.g., administrative work)	Yes	94	41.6
	No	132	58.4

For the DP part, Saudi participants got higher scores than non-Saudi participants ($P = 0.018$), family medicine doctors got higher scores than other specialties ($P = 0.048$).

In addition, rotating or covering physicians got higher scores than those who were fixed in one PHC ($P = 0.0001$), the participants who got high scores were not satisfied with their job ($P = 0.0001$), and participants who worked in rural area got higher scores than the participants who worked in urban area ($P = 0.010$).

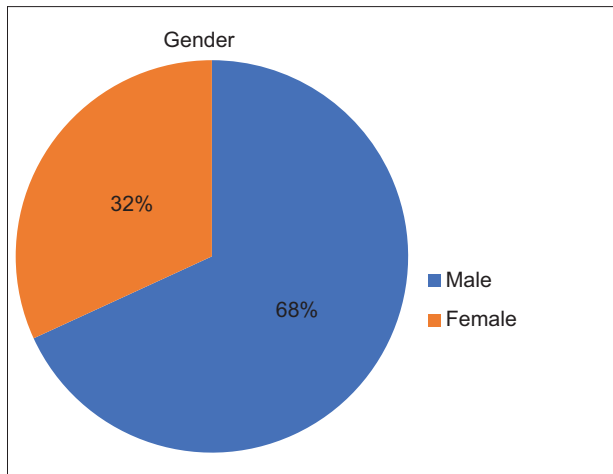


Figure 1: Distribution of study sample by gender

Table 2: Means and standard deviations for each part and total score (n=226)

	Emotional exhaustion total	Depersonalization total	Personal accomplishment total
Mean	24.99	9.19	29.41
Std. deviation	11.537	6.133	9.900

Table 3: Frequencies and percentages of levels of questionnaire parts

		n	Percentage
Emotional exhaustion level	Low emotional exhaustion	119	52.7
	High emotional exhaustion	107	47.3
Depersonalization level	Low depersonalization	110	48.7
	High depersonalization	116	51.3
Personal accomplishment level	Diminished personal accomplishment	135	59.7
	Not diminished personal accomplishment	91	40.3
High Burnout level in all three dimensions	High emotional exhaustion (EE), high depersonalization (DP), low personal accomplishment (PA)	55	24.3

For the PA part, participants who had diminished PA were not satisfied with their job ($P = 0.005$).

In addition, rotating or covering participants had diminished PA more than those who were fixed in one PHC ($P = 0.027$), and participants who worked in the Omran sector had diminished PA more than the participants who worked in other sectors ($P = 0.004$). Participants who did not have tasks other than clinical work had diminished PA more than participants who have other tasks ($P = 0.049$).

Secondly: high score for each part

1- EE part

Table 5 shows that there was a significant difference in the mean score for the job title in favor of Specialist ($P = 0.011$), in

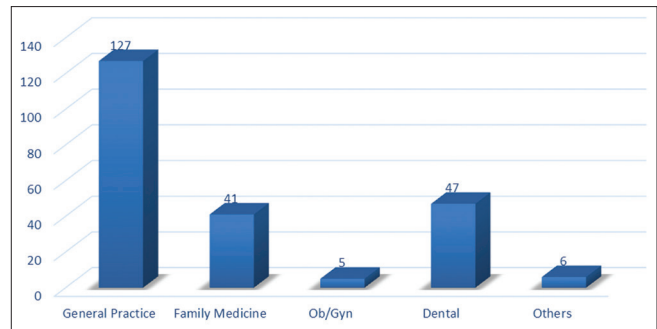


Figure 2: Distribution of study sample by specialty

Table 4: Relationship between questionnaire parts and demographic data

	Chi-square	P
EE level		
Age in years	9.528	0.023
Nationality	8.326	0.004
Duty status	5.792	0.016
Job satisfaction	23.835	0.0001
DP level		
Nationality	5.605	0.018
Specialty	9.601	0.048
Area of working	6.567	0.01
Duty status	12.963	0.0001
Job satisfaction	32.349	0.0001
PA level		
Sector	11.089	0.004
Duty status	4.917	0.027
Job satisfaction	10.661	0.005
Tasks other than clinical work (e.g, administrative work)	3.872	0.049

Table 5: One-way analysis of variance results

		n	Mean	Std. deviation	Std. Error	F	P
Job title	Resident	92	34.20	6.382	0.665	6.64	0.011
	Specialist	15	38.93	7.869	2.032		
	Total	107	34.86	6.773	0.655		
Job satisfaction	Not satisfied	21	38.19	5.853	1.277	6.091	0.003
	Neutral	64	34.98	7.250	0.906		
	Satisfied	22	31.32	4.122	0.879		
Total		107	34.86	6.773	0.655		

addition, there was a significant difference in the mean score for job satisfaction in favor of not satisfied ($P = 0.003$).

Table 6 shows that there was no significant difference in the mean score between those who have other tasks and who don't have other tasks.

2- DP part

Table 7 shows that there was no significant difference in the mean score between job titles.

Table 6: Independent-samples t-test results

		<i>n</i>	Mean	Std. deviation	Std. error Mean	T	P
Tasks other than clinical work (e.g., administrative work)	Yes	46	35.50	7.483	1.103	0.84	0.39
	No	61	34.38	6.205	0.795		

Table 7: One- Way ANOVA test results for the mean score between job titles

	<i>n</i>	Mean	Std. deviation	Std. error	F	Sig.
Job title Resident	100	14.13	4.177	0.418	0.77	0.46
Specialist	15	14.40	4.356	1.125		
Consultant	1	9.00				
Total	116	14.12	4.191	0.389		

Table 8 shows that there was no significant difference in the mean score for all demographic variables.

3- Diminished PA part

Table 9 shows that there was a significant difference in the mean score for age groups in favor of those who have 45–50 years ($P = 0.03$).

In addition, there was a significant difference in the mean score for job satisfaction in favor of satisfied with their job ($P = 0.009$). Other demographic variables show no significant difference in the mean score.

Table 10 shows that there was a significant difference in the mean score between males and females in favor of males ($P = 0.009$). Other variables show no significant difference in the mean score.

Discussion

Physician burnout is prevalent worldwide and it negatively affects physicians, patients, and the health care system,^[38] and it costs governments substantial cost.^[39]

To our knowledge and search, this is the first study to determine the prevalence and risk factors of BS among primary health care physicians in Al Ahsa, Saudi Arabia.^[25-27] By using MBI-HSS (MP), we found that 24.3% of participants scored high level of BS in all the three dimensions while it was ranging from 3.7% to 54.1% worldwide.^[9,16-24]

The prevalence of overall burnout among PHC physicians in Arab countries was ranging from 12.6% to 41.94%.^[25-30]

In a Saudi study conducted in Jeddah, the prevalence of burnout was 25.2%.^[27] In another Saudi study conducted in Riyadh, 6.3% of the participants scored a high level of burnout in all three dimensions.^[26]

In our study, 47.4% had a high level of EE, while it was also high in 23.2% to 69.5% in other studies done in Arab countries.^[25-30]

In other Saudi studies, the percentage of physicians who scored high EE was ranging from 29.5% to 69.5%.^[25-27] Our study showed a result within this range.

We found that 51.3% of the participants in our study had a high level of DP which is higher than that found in the studies done in Arab countries; (13.8% to 38.9%).^[25-30] Our study showed higher level of DP than other studies done in Saudi Arabia; (15.7% to 38.9%).^[25-27]

About 60% of the participants in our study scored a low level of PA which is higher than that in the studies done in Arab countries; (18.7–28.5%). Our study showed higher level of PA than other studies done in Saudi Arabia (12.2% to 28.5%).^[25-27]

In our study, high EE was seen more in physicians whose ages ranged from 35 to 45 years, Saudi participants, and rotating or covering physicians. Unexpectedly, the participants who got high scores were more satisfied with their jobs than other participants.

Worldwide, high EE was seen more among women,^[17] those with more than 5 years working experience,^[18] younger age physicians, those who have more excessive hours of work, and those with job dissatisfaction.^[20]

In studies done in Saudi Arabia, unlike our study, high EE was seen in younger age;^[25] in less than 34 years and in those who are unsatisfied with their job.^[26] Like our study, high EE was observed in Saudi participants.^[25] It was also higher in those receiving a salary of 15,000–20,000 SAR.^[25]

For DP, we found that it was higher in Saudi participants, family physicians, rotating or covering physicians, physicians who were not satisfied with their job, and participants who worked in rural areas.

In other studies done in Saudi Arabia, like our study, high DP was observed in Saudi physicians. It was also higher in those receiving salary more than 20,000 SAR, physicians who have 5–15 years working experience,^[25] and those who were taking psychotropic drugs.^[26]

Low PA was seen in physicians who were not satisfied with their job, in rotating or covering physicians, participants who did not have tasks other than clinical work, and physicians who work in the Omran sector.

In a study conducted in Asir province in Saudi Arabia, low PA was noticed in younger physicians, non-Saudi physicians, those with more than 5 years of work experience, and those with more annual vacation.^[25]

There are some limitations to our study. The most important limitation is the use of a cross-sectional method which does not

Table 8: Independent-samples *t*-test results

		<i>n</i>	Mean	Std. deviation	Std. error Mean	T	P
Gender	Male	84	14.20	4.404	0.480	0.33	0.73
	Female	32	13.91	3.631	0.642		
Nationality	Saudi	94	14.20	4.307	0.444	0.43	0.66
	Non-Saudi	22	13.77	3.728	0.795		
Area of working	Urban	99	14.19	4.254	0.428	0.44	0.66
	Rural (Hijrah)	17	13.71	3.901	0.946		
Duty Status	Fixed in one PHC	67	13.57	3.795	0.464	-1.67	0.09
	Rotating or covering	49	14.88	4.613	0.659		
Tasks other than clinical work (e.g. Administrative work)	Yes	55	14.20	4.382	0.591	0.19	0.84
	No	61	14.05	4.047	0.518		

Table 9: One-way analysis of variance results

		<i>n</i>	Mean	Std. Deviation	Std. Error	F	Sig.
Age in years	25 to less than 35	68	24.90	6.025	0.731	3.06	0.03
	35 to less than 45	43	22.44	7.468	1.139		
	45 to less than 50	17	19.53	10.724	2.601		
	50 and above	7	20.57	9.034	3.415		
	Total	135	23.21	7.532	0.648		
Job title	Resident	114	23.04	7.221	0.676	0.21	0.8
	Specialist	20	24.25	9.419	2.106		
	Consultant	1	23.00				
	Total	135	23.21	7.532	0.648		
Specialty	general practice	73	23.82	6.592	0.772	1.57	0.18
	family medicine	25	24.16	7.122	1.424		
	Ob/Gyn	3	28.33	3.786	2.186		
	Dental	31	21.00	9.194	1.651		
	Others	3	18.33	13.051	7.535		
Years working in PHCCs	5 years or less	53	24.62	6.074	0.834	2.17	0.11
	6 to 10 years	48	23.08	7.729	1.116		
	greater than 10 years	34	21.21	8.933	1.532		
	Total	135	23.21	7.532	0.648		
Smoking status	Nonsmoker	109	23.50	7.599	0.728	1.04	0.35
	Ex-smoker	10	19.90	6.919	2.188		
	Current smoker	16	23.38	7.375	1.844		
	Total	135	23.21	7.532	0.648		
Earning per month	less than 10,000 SAR	20	21.90	7.093	1.586	0.36	0.69
	10 to 20 SAR	74	23.38	7.357	0.855		
	more than 20,000 SAR	41	23.56	8.146	1.272		
	Total	135	23.21	7.532	0.648		
Sector	Omran	57	22.28	7.549	1.000	0.91	0.4
	Mubaraz	53	24.23	7.597	1.044		
	Hofuf	25	23.20	7.377	1.475		
	Total	135	23.21	7.532	0.648		
Average number of patients per day	less than 40 patients	53	22.40	8.328	1.144	0.69	0.55
	40-59 patients	50	24.38	6.020	0.851		
	60-79 patients	26	23.00	8.676	1.702		
	80 and above patients	6	21.67	6.623	2.704		
	Total	135	23.21	7.532	0.648		
Job satisfaction	not satisfied	21	26.67	4.902	1.070	14.2	0.0001
	Neutral	78	24.64	6.073	0.688		
	Satisfied	36	18.11	9.158	1.526		
	Total	135	23.21	7.532	0.648		

Table 10: Independent-samples *t*-test results

		<i>n</i>	Mean	Std. deviation	Std. error Mean	<i>T</i>	<i>P</i>
Gender	Male	92	22.08	7.810	0.814	-2.62	0.009
	Female	43	25.65	6.320	0.964		
Nationality	Saudi	96	23.80	7.177	0.732	1.42	0.15
	non-Saudi	39	21.77	8.264	1.323		
Duty status	fixing in one PHC	85	22.89	8.025	0.870	-0.64	0.52
	rotating or covering	50	23.76	6.653	0.941		
Tasks other than clinical work (e.g., administrative work)	Yes	49	23.92	6.736	0.962	0.81	0.41
	No	86	22.81	7.961	0.858		

give us a causal relationship. Another limitation is not adding some variables that were seen to be associated with high level of burnout such as duration of annual vacation^[25] and the use of psychoactive medication in the last year.^[26]

Conclusion

Based on the results of this study, there is a significant level of burnout among physicians working in PHCCs in Al Ahsa, Saudi Arabia. In some dimensions, BS was higher than other studies done worldwide and in Saudi Arabia. High burnout was associated with some variables such as job satisfaction, physician nationality, being rotating or covering physician, and age of physician. Further research is needed to study this problem in-depth, to identify the causes, and to establish a strategy to prevent, early detect, and treat burnout among physicians working in PHCCs.

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Conflicts of interest

There are no conflicts of interest.

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