

An Evaluation of Burnout among Physicians in Family Medicine Centers in Jubail Industrial City, Saudi Arabia

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Abstract:

Burnout syndrome is a widespread occupational problem affecting personal and professional life. It is a work-related psychological and behavioural syndrome associated with decreased job performance and satisfaction. Burnout consists of three dimensions: emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA).

The border objective of this research is to calculate the prevalence of burnout and detect the risk factors that affect burnout among physicians of family medicine centers (FMCs) of the royal commission health service program (RCHSP), Jubail industrial city, Saudi Arabia.

In doing so a cross-sectional study was conducted in April 2021 for the physicians of the FMCs, belonging to RCHSP in Jubail Industrial city, in which 57 physicians working in FMCs were eligible for the study. Data collection was done through a two-part validated self-administered questionnaire including sociodemographic data and working conditions to explore factors associated with burnout. In addition, Maslach Burnout Inventory MBI-HSS (MP) assesses burnout in three dimensions. The statistical analysis for the data was done through the SPSS program. From our result we discovered that 51 out of 57 physicians completed the survey (response rate: 89%). The mean score for each dimension: for EE was 28.67 ± 14.91 SD, for DP was 9.99 ± 6.84 SD, and for PA was 39.71 ± 8.72 SD. The percentage of high score level in each dimension: in EE was 47.1%, in DP was 27.5%, in PA was 13.7% of the participants scored high for PA burnout. 29.4% of the participants scored a high level of burnout in all three dimensions. High EE was present more in physicians whose bachelor degree, family medicine specialty, the average number has seen per day (31-40), years of practice 11-20, and physicians not satisfied with their job. For DP, it was higher in physicians in a dental specialty, the average number of patients seen per day (31-40), and physicians not satisfied with their job. For PA, high burnout level was seen in physicians who have five years or less in practice, physicians not satisfied with the salary, and those not satisfied with their job, and physicians having tasks other than clinical work (e.g., administrative).

Key words: Burnout syndrome, Jubail, depersonalization

Introduction:

Examinations of the current state of the physician workforce across the globe indicate a decline on the overall well-being among healthcare providers, which is seen as a threat to achieving the triple aim (Berwick, Nolan, & Whittington, 2008). Consequences of this phenomenon include increasing rates of early retirements or exits from the professions (Williams et al., 2010), difficulties in improving the patient experience (Linzer et al., 2005; Linzer et al., 2009a), and low levels of provider engagement with clinic-level and system-level initiatives (Scheurer, McKean, Miller, & Wetterneck, 2009). One aspect of physician well-being that has been examined in detail is burnout. Burnout appears to be widespread generally, among health care workers, and physicians specifically (Leiter, Frank, & Matheson, 2009; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001). Increasing job demands as a result of an increased in change and innovation taking place within primary care practices are affecting physicians' relationship with their work, resulting in increasing levels of burnout (Maslach & Jackson, 1981; Maslach et al., 2001; Shanafelt et al., 2003). Burnout syndrome (BS) describes the occupational severe emotional stress which is associated with jobs that are needed to be done to take care of others. BS affected certain professionals that require an intense involvement with people. Healthcare staffs, especially physicians, are more prone to burnout; they are exposed to high-stress levels at work and dedicated themselves to the wellbeing of others. In essence, Burnout is characterized as the state of emotional exhaustion, depersonalization or cynicism and reduced self-efficacy (Maslach & Jackson, 1981; Maslach & Leiter, 1997; Maslach et al., 2001). Unlike other industries, where dissatisfied workers can often obtain relief by changing jobs, or employers; health care workplace conditions are often similar throughout the industry, and medical practices, in particular, are often hard to leave due to the costs and time associated with re-credentialing and re-licensure; the emotional and financial capital tied up in physician relationships with their patients; and the large investment of education and training physicians have made in preparation for their career choice. Prevalence of burnout among primary care professionals is estimated to range from 30% - 70% of all providers, indicating a significant issue in the work lives of physicians (Shanafelt et al., 2003).

According to Bresó et al., they specified the main psychosocial factors for burnout syndrome, individual variables such as gender and personality variables such as type A behavior, they play an important role in burnout. Type A behavior is connected with difficulty to stop working even when they have achieved their goals, an extreme sense of competitiveness, time urgency, and impatience. It is associated with a higher stress level and hate failure. Furthermore, other factors include a lack of social support, toxic and hard job content, negative work climate, and lack of reciprocity.

In a study by Houkes, burnout development differs among men and women due to gender and socialization differences. In EE, women score higher because they hold patient tasks while men delegate them. In DP, this is the main factor in men for burnout process, men score higher. Women use emotion-focused coping and emotional exhaustion as the triggering factor. In the end process stages, both men and women, develop depersonalization. Women may affect by the quality of care they provide for the patient, which leads to a lower sense of accomplishment. Furthermore, women tend to have a greater work-family conflict.

In recent studies, burnout includes different types of jobs such as social service, security, teleworkers, education, and health care. In addition, burnout can be detected before the employment level and in university students, who suffer from studying burnout syndrome, which can be associated with depression and psychosocial distress. The main objective of this paper is to address the issue and determinants of burnout among physicians of Family medicine centers (FMCs), RCHSP in Jubail industrial city, Saudi Arabia. In all of what we have discussed, and to achieve this purpose, the following objectives are being highlighted:

- ❖ To calculate the prevalence of burnout syndrome among physicians of family medicine centers in Jubail Industrial City, Saudi Arabia
- ❖ To identify and study the risk factors among physicians of FMCs, RCHSP in Jubail Industrial City, Saudi Arabia
- ❖ To address the issue and determinants of burnout among physicians of family medicine centers(FMCs), RCHSP in Jubail Industrial City, Saudi Arabia

Literature Review

Burnout is a specific stress reaction resulting from the relationship between an individual and their work, a response specific to one's relationship with their work, and is comprised of three components, Emotional Exhaustion, Depersonalization and Self Efficacy. Emotional Exhaustion is described as the state of depletion resulting from the conduct of one's work. Depersonalization, often referred to as cynicism is the withdrawal of oneself from personal interactions, or dehumanizing of those involved in one's work; especially concerning for health care professions at large and physicians specifically. Reduced Self-Efficacy assessments refer to feelings of minimal personal accomplishments or general feelings of futility with respect to one's work (Maslach, Jackson, & Leiter, 1996; Maslach & Leiter, 1997; Maslach et al., 2001). These dimensions occur in a temporal sequence and build in duration and severity (Maslach & Leiter, 1997; Maslach & Leiter, 2008; Maslach et al., 2001), and can be explained using Conservation of Resources theory (COR) (Hobfoll, 1989; Hobfoll & Freedy, 1993). COR states that individuals seek to acquire and maintain resources, and stress occurs when those resources are threatened or depleted. COR theory predicts that stress occurs in three such situations, when resources are lost or depleted; when they are not sufficient to meet demands from the workplace; and when invested, they do not produce the intended result.

Work both places demands on one's resources (e.g. energy) and provides resources (e.g. social support and accomplishments) to an individual to assist in completing the work.

In the US, a large national study that included 7288 physicians from different specialties was completed through the Maslach Burnout Inventory, which showed that the prevalence of burnout among physicians was 45.8% [111]. Burnout differs between specialties, with the highest rates detected among frontline physicians such as family medicine, emergency medicine, and general internal medicine.

The worldwide prevalence of burnout in Primary health care (PHC) physicians differs among countries; ranging from 3.7% to 54.1% [134,137-139]. In Arab countries, the reported prevalence was from 12.6% to 41.94% [118, 122].

A study that included 1,400 family physicians from 12 European countries showed that: high EE score was 43% of respondents, high DP score was 35%, and Low PA high burnout was 32%, while 12% of respondents scored high from in all dimensions [126].

In the UK, a study that included more than 500 physicians demonstrated that at least 33% of the physicians reported symptoms of burnout [127].

A study conducted in Canada and Jamaica that included 77 physicians showed that: high EE score was 34%, high DP was 20%, Low PA high burnout was 38% of participants [128].

A focus group study conducted in England, covering 25 GPs, after interviewing general practitioners believed that poor well-being and burnout affect patient care, physician quality of care by fatigue, decreased cognitive functioning, and decision-making abilities. Furthermore, the respondents reported that burnout affects physician attitudes and listening skills, and increasing inappropriate referrals number [129].

In a qualitative study in the US among 21 PHC physicians from different 10 academic medical centers, participants were asked about burnout causative factors. Participants were affected by heavy workloads, associated with increase administrative tasks and office work. They felt undervalued by their organizations and conflicted in their daily work duties. [130]. They suggested potential solutions such as managing the workload and work-family balance, caring for primary care physicians as human beings, promoting physician's voices, advocating reforms beyond the institution, fostering community, and supporting professionalism.

Methodology

A cross-sectional study was performed at the Family medicine centers, belonging to the Royal Commission Health Service Program, held in Jubail, Saudi Arabia in April 2021.

Family medicine centers (FMCs) were established under Royal Commission Health Service Program (RCHSP) in Jubail industrial city, it is the largest industrial city established in 1975, located in the eastern region of Saudi Arabia, with an area of 1.106 square kilometers and an estimated total population of 684,531.

Physicians of the FMCs, RCHSP, Saudi Arabia during the specific time.

- The study included all physicians of the FMCs (were eligible for the study);
- The study excluded interns, residency physicians in training programs, and the physicians from the hospital providing partial service in FMCs.

The questionnaire was conducted among all 57 physicians who work in FMCs in Jubail (No subgroup division), to measure burnout levels among them 51 physicians responded and completed the survey. The response rate was 89%. Explanation about the objective and subject of the dissertation and questionnaire (survey) was conducted for the physicians prior to the commencement of the study. They were assured about the anonymity and confidentiality of their response, also that no associated harm if they decided to participate in the study. All relevant centers were contacted to ensure their collaboration in this study. Collection of data was done through a validated self-administered questionnaire consisting of two parts, which including Sociodemographic & Working condition data and Maslach Burnout Inventory for medical personnel, which is considered the gold standard, reliable, well-established, and validated tool for identifying burnout in the medical research literature.

The first part of the questionnaire assesses the associated risk factors of burnout at our FMCs. These included demographic data such as (gender, marital status, age, children), specialty-related questions (specialty name, highest academic degree, and years of practice), and work-related questions (job satisfaction, salary satisfaction, tasks other than clinical work, smoking history, and drug history).

Statistical Analysis and result

Result Table .1 Mean & Standard deviation for Emotional exhaustion

Items	Mean	Std.
I feel emotionally drained from my work	3.53	1.86
I feel exhausted at the end of workday	4.49*	1.71
I feel fatigued when I get up on morning and I have to face another day on the job	3.43	2.03
I working with people all day is really a strain for me	2.98	2.01
Feel frustrated of my job	2.47	2.24
Working with people directly puts too much stress on me	2.75	2.02
I feel like I am at the end of my rope	2.25	2.06
I feel that I am working too hard in my job	3.92	1.99
I feel burned out of my work	2.84	2.16
Total	3.18	0.72

*indicates the highest mean

Results showed that the highest mean recorded for the item (*I feel exhausted at the end of the workday*) was 4.49, while item (*I feel like I am at the end of my rope*) recorded a low mean of 2.25. All items of the Emotional Exhaustion dimension were recorded at 3.18 (*see table 5*).

Table .2 Mean & Standard deviation for Personal Accomplishment

Items	Mean	Std.
I can easily understand what my patients feel	5.55	0.81
I deal very effectively with problems of my patients	5.61*	0.78
I feel I am positively influencing other people lives through my work	4.88	1.58
I feel very energetic	4.67	1.45
I can easily create a relaxed atmosphere with my patients	5.10	1.38
I have accomplished many worthwhile things in this job	4.14	2.04
In my work, I deal with emotional problem very calmly	5.08	1.25
I feel exhilarated after working closely with my patients	4.69	1.48
Total	4.97	0.48

*indicates the highest mean

Results showed that the highest mean recorded for the item (*I deal very effectively with problems of my patients*) was 5.61, while item (*I have accomplished many worthwhile things in this job*) recorded a low mean of 4.14. All items of the Personal Accomplishment dimension recorded 4.97 (see table 6).

Table .3 Mean & Standard deviation for Depersonalization

Items	Mean	Std.
I feel that I treat some patients as if they were impersonal objects.	2.25*	1.95
I have become more insensitive to people since I have this job	2.24	2.05
I'm afraid this job will harden me emotionally	2.18	2.04
I don't really care what happens to some of my patients	1.35	1.66
I have the impression that my patients blame me for some of their problem	1.86	1.81
Total	1.98	0.38

*indicates the highest mean

Results showed that the highest mean recorded for the item (I feel that I treat some patients as if they were impersonal objects) was 2.25, while item (I have the impression that my patients blame me for some of their problems) recorded a low mean 1.86. All items of the Personal Accomplishment dimension recorded 1.98 (see table 7).

Table .4 Emotional Exhaustion, Personal Accomplishment, and Depersonalization Mean and Std. (total score)

Dimensions	Mean	Std.
Emotional Exhaustion	28.67	14.91
Personal Accomplishment	39.71	8.72
Depersonalization	9.88	6.84

Table 4 shows that the mean score for the **Emotional Exhaustion** was 28.67 ± 14.91 SD, for Personal Accomplishment it was 39.71 ± 8.72 SD, and the mean score for **Depersonalization** was 9.99 ± 6.84 SD.

High Scores in burnout dimensions

Table .5 Frequencies and percentages of levels of Burnout in EE, PA, and DP (n=51)

Moderate F	High %	Burnout		Dimensions		Low					
		F	%	F	%	F	%				
12	23.5	15	29.4	24	47.1	38	74.5	6	11.8	7	13.7
Depersonalization		17	33.3	20	39.2	14	27.5				

Table 5: shows the frequencies and percentages for the levels of each part of the study questionnaire. The percentage of participants who scored high in the Emotional Exhaustion was 47.1%, in addition, the participants scored high in Depersonalization 27.5%, and 13.7% was high burnout in Personal Accomplishment.

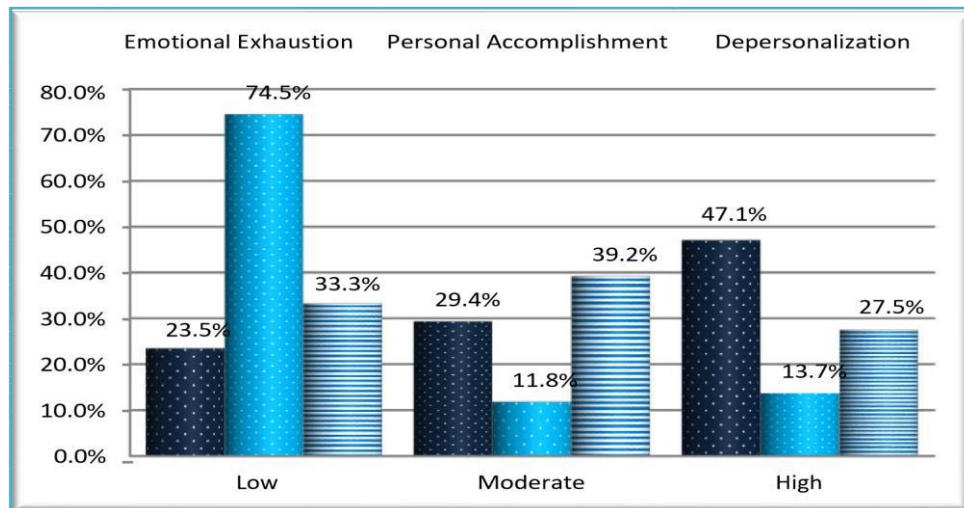


Fig: 1 levels of Burnout in Emotional Exhaustion, Personal Accomplishment, and Depersonalization

Table .6 Frequencies and percentages of high levels of Burnout in EE, PA, and DP (n=51)

Burnout Level	EE		DP		PA		All three dimensions (EE, DP, PA)	
	Frequency (F)	%	Frequency (F)	%	Frequency (F)	%	Frequency	%
High	24	47.1	14	27.5	7	13.7	15	29.4
Low	12	23.5	17	33.3	38	74.5		

Table 6: shows the High Burnout level in all three dimensions (EE. PA, DP) accounted (15) respondents with a proportion of 29.4%.

4.5 Relationship between burnout dimensions and demographic data.

Table .7 Relationships between questionnaire parts and demographic data

Dimensions	X	P. value
Emotional Exhaustion level		
Highest Degree	12.548	0.014*
Specialty	27.805	0.002**
Average number of patients seen per day	17.474	0.008**
Job Satisfaction	12.148	0.016*
Personal Accomplishment level		
Highest Degree	10.425	0.034*
Job Satisfaction	12.134	0.016*
Depersonalization level		
Highest Degree	12.979	0.011*

X^2 =chi-square test.

*P. value is significant at level 0.05 **P. value is significant at level 0.01

Table 7: shows the statically significant relationship between each part of the questionnaire and demographic variables. Results show that there is a significant relationship between EE level and Highest Degree, Specialty, Average number of patients seen per day, and Job Satisfaction ($P =$

$0.014, 0.002, 0.008$ and 0.016) respectively. There is a significant relationship between PA level and Highest Degree, Job Satisfaction ($P = 0.034$. and 0.016) respectively. There is a significant relationship between DP level and Highest Degree, ($P = 0.011$).

Conclusions

This study was set out to evaluate the burnout among physicians in FMCs belonging to RCHSP in Jubail industrial city; calculate the prevalence of burnout and identify the risk factors associated with burnout.

The study has discussed the physician burnout impact on professional and personal life. Burnout measurement and assessment can be done through different tools to assess the severity degree. It can be resolved at the early stage by different interventions from the management of the healthcare organizations by applying a focused approach with standard protocol and guidelines.

Recommendations

Based on results from the current study, the recommendations are listed as the following:

- ✚ Conducting annual (and with recruitment) screening system and surveys that help to early detection of burnout symptoms among FMCs physicians.
- ✚ Arrange regular meetings with leadership to identify discuss and address different concerns.
- ✚ Organizing multidisciplinary techniques and lessons for FMCs physicians.
- ✚ Organizing workshops and practical sessions for FMCs physicians on understanding personal values, time management, motives, and goals.
- ✚ Rewarding physician's efforts and obtaining more work satisfaction is essential for obtaining a good work environment and improve the productivity of the team.
- ✚ Recruitment of FMCs physicians in the proper positions according to their qualifications, experience, and interest.

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