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Prevalence and Characteristics of Burnout among Pharmacists in Primary Care Centers in the Kingdom of Bahrain- A Cross-Sectional Study

Maha Hussain Mahdi[1], Ahmed Al-Jamri[2], Muna Alqasimi[1], Raja A Alshaikh[1] & Zahra Alnahash[1]

[1] Consultant Family Physician, Primary Care Centers, Ministry of Health, Bahrain

[2] Family Physician, Primary Care Centers, Ministry of Health, Bahrain

Correspondence: Maha Hussain Mahdi, Consultant Family Physician, Head of Council Budaiya Health Center, Ministry of Health, Bahrain. Tel: 973-39-933-063. E-mail: Drmahahussain@gmail.com

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Abstract

Introduction: Burnout syndrome is defined as the state of physical, emotional, and mental exhaustion that results from exposure to stressors. It is prevalent among healthcare workers including pharmacists and is associated with significant detrimental effects on the patients, healthcare workers, and healthcare systems. Nonetheless, few studies have assessed the prevalence and characteristics of burnout among pharmacists. This study aimed to assess the prevalence and characteristics of burnout among pharmacists in governmental primary health care centers in Bahrain.

Methods: A cross-sectional study was conducted in the period between January 2022 and February 2022 and involved all the pharmacists in the primary health care centers in the kingdom of Bahrain. Burnout syndrome was assessed using the Maslach Burnout Inventory, a validated tool designed to assess the emotional exhaustion, depersonalization, and personal accomplishment aspects of burnout.

Results: A total of 148 pharmacists completed the online questionnaire and were included in the analysis (response rate = 80.4%). The majority of participants were females (n = 130, 87.8%), married (n = 117, 79.1%), and aged between 25 and 35 years (n = 99, 66.9%). Almost 60% (n = 86, 58%) of the pharmacists had high levels of emotional exhaustion, 62 (41.9%) participants reported high levels of depersonalization, and 60.1% (n = 89) of them reported low accomplishment levels. No statistical differences were found between the baseline characteristics of the pharmacists and the aspects of burnout.

Conclusion: In conclusion, this study revealed an alarmingly high prevalence of burnout syndrome among pharmacists in primary care centers in Bahrain. Evidence-based preventive strategies and interventions to reduce burnout levels among pharmacists are urgently needed.

Keywords: Bahrain, burnout, pharmacists, prevalence, primary health Care

1. Introduction

Burnout syndrome, defined as a state of physical, emotional, and mental exhaustion that results from exposure to stressors, is prevalent among healthcare workers and is associated with significant detrimental effects on the healthcare system (West, Dyrbye, & Shanafelt, 2018). According to the International Classification of Diseases (ICD-11), burnout is classified as an occupational phenomenon that results from chronic unmanaged workplace stress and is marked by the depletion of energy level, increased mental distance from the job, and decreased professional efficacy (Hillert, Albrecht, & Voderholzer, 2020).

Maslach proposed a three-dimensional model of burnout syndrome composed of emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA). In addition, Maslach proposed the sequential development of the burnout syndrome; the emotional exhaustion stage was proposed to develop initially followed by the depersonalization stage. Left unmanaged, low personal accomplishment and professional inefficacy will develop (Maslach & Leiter, 2016; Edú-Valsania, Laguía, & Moriano, 2022). The gold standard tool for measuring and assessing burnout syndrome and its components is the Maslach Burnout Inventory (MBI) (West et al., 2012; Williamson, et al., 2018).

In the literature, burnout was found to be associated with negative implications on patients, health care professionals, and the health care system. These negative implications included lower job satisfaction, frequent absenteeism, healthcare worker anxiety and depression, suboptimal care, and higher rates of medical errors. Thus, burnout among healthcare workers has more serious consequences compared to other professions (Patel et. al. 2018; Salvagioni et al., 2017).

Several studies found potentially high rates of burnout among healthcare workers such as physicians and nurses. For instance, a systematic review of 182 studies revealed that the overall prevalence of burnout was 67.0% while the prevalence estimates of burnout subcomponents were 72.0% on emotional exhaustion, 68.1% on depersonalization, and 63.2% on low personal accomplishment. In addition, the review found substantial variability in burnout definitions and assessment methods (Rotenstein, et al., 2018). Another systematic review of 19 studies and 4108 healthcare professionals from different Arab countries found as high as 85% prevalence estimates for the three MBI subscales. The review also concluded that female sex, shift patterns, long duration of work, and long working hours were predictors of burnout syndrome (Elbarazi, Loney, Yousef, & Elias, 2017).

Although pharmacists play an essential role in the clinical decision-making process and medication management, their role is often undervalued in comparison to more front-line medical healthcare workers like physicians and nurses. Pharmacists are no exception to these professions in their risk of burnout. Similar to other healthcare professions, pharmacists struggle with highly demanding and stressful work conditions, frequent non-clinical duties, prolonged and busy working schedules, and difficult financial situations. All these challenges and stresses can induce burnout (Durham, Bush & Ball, 2018; Calgan, Aslan, & Yegenoglu, 2011).

Nonetheless, few studies have assessed the prevalence and characteristics of burnout among pharmacists. A recent study among American pharmacists completed in 2018 revealed high levels of burnout on at least one subscale of MBI (as high as 53.2%). Another assessment of burnout among critical care pharmacists found a higher prevalence of burnout syndrome. Specifically, 64% of critical care pharmacists reported at least one component of burnout syndrome and 14.5% of them reported burnout symptoms in all three subscales of MBI. In the Gulf region, the prevalence estimates of burnout among pharmacists were 59.1% in Saudi Arabia (Aljuffali, Alshabanah, & Almalag. 2022), 52.8% in Kuwait (Al-Haqan, Alenezi, Al-Mutairi, & Al-Taweel, 2021), and 19.7% in Qatar (Eltorki, et al. 2022)

In Bahrain, the prevalence and characteristics of burnout were assessed previously among healthcare workers. For instance, a study was conducted in 2020, to assess the prevalence of burnout among primary care physicians. The study revealed that the overall prevalence of burnout was 41.2% and found that female sex, advanced age, and being married were predictors of high burnout risk among physicians (Al Ubaidi, et al. 2020). Burnout syndrome was also assessed in secondary care settings in Bahrain. The data showed that burnout syndrome was prevalent among secondary care physicians in Bahrain; the prevalence rates of emotional exhaustion, high depersonalization, and low personal accomplishment were 43.1%, 26.7%, and 51.5%, respectively. Married Bahraini physicians aged between 30–40 years were more prone to high burnout levels according to the study (Hasan, Nooh & Alsayyad, 2015). Similarly, the stress and burnout rate among medical students was estimated to be between 43% and 47%. (Al Ubaidi, Jassim & Salem, 2018). This study aimed to assess the prevalence and characteristics of burnout among pharmacists in governmental primary health care centers in Bahrain. To the best of our knowledge, no previous studies evaluated the prevalence and characteristics of burnout amongst pharmacists in Bahrain.

2. Methods

2.1. Study Design, Setting, and Population

A cross-sectional study was conducted in the period between January 2022 and February 2022 and involved all the pharmacists in the primary health care centers in the kingdom of Bahrain. In Bahrain, 28 primary health centers are distributed in five health regions. The study was conducted in these health facilities. All primary healthcare pharmacists (n = 184 pharmacists) were eligible for participation. Considering the total number of pharmacists (n = 184), the prevalence of burnout in previous studies (50%), a 95% confidence interval with a 5% margin of Error, a minimum of 125 participants was required to assess the statistical significance level, and the prevalence of burnout syndrome among pharmacists in Bahrain. The research protocol of the present study was reviewed and approved by the research and ethics committee in primary health care in Bahrain.

2.2 Inclusion and Exclusion Criteria

All primary care pharmacists working at governmental primary care centers in Bahrain were eligible to participate in the study. Pharmacists who were on prolonged leave were excluded. In addition, surveys with incomplete answers were excluded from the study.

2.3 Questionnaire

The survey consisted of two parts; the first part comprised the baseline characteristics of the participants such as sex, age, primary practice area, marital status, number of children, and years of practice. The second part comprised the burnout assessment tool using the MBI. MBI is a 22-item validated tool designed to measure the three distinct dimensions of burnout including the EE component (9 items), DP component (5 items), and PA component (8 items). All the questions were scored according to a Likert scale ranging from 0 (never) to 6 (every day). Higher EE and DP scores correspond to greater experienced burnout while lower PA scores correspond to greater experienced burnout. Specifically, EE scores of 27 or more indicated a high level of burnout (range of scores, 0-54), a DP score of 10 or more indicated a high degree of burnout (range of scores, 0-30), and a PA score of 33 or less indicated a high degree of burnout (range scores, 0-48). The scoring system is shown in table (1). (Liebenberg, Coetzee Jnr, Conradie, & Coetzee, 2018). Additionally, permission to use the MBI questionnaire was obtained from the author.

Table 1. Classification of Maslach Burnout Inventory Questionnaire and Score (MBI)

Burnout level	Emotional Exhaustion	Depersonalization	Personal accomplishment
High	≥27	≥10	0-33
Moderate	19-26	6-9	34-39
Low	0-18	0-5	≥40

2.4 Data Collection Process and Management

An online google self-administered survey was constructed and delivered to all eligible participants. Participants were contacted through the head of pharmacists and were encouraged to participate in the study. A cover letter was formulated in the online survey to inform the participants about the aim of the study. In addition, all data were collected anonymously as no personal number or identity card details were not obtained from the participants.

2.5 Statistical Analysis

Categorical variables were presented as frequencies and percentages while continuous variables were presented as means and standard deviations. As appropriate, categorical variables were compared using $\chi 2$ test or exact fisher's while continuous variables were compared using the student's t-test. A P-value of less than 0.05 was considered to indicate a statistically significant difference. All data were analyzed by Statistical Package for Social Science (SPSS) version 21 for windows (SPSS, Chicago, Illinois, USA).

3. Results

3.1 Baseline Characteristics of the Participants

A total of 148 pharmacists completed the online questionnaire and were included in the analysis (response rate = 80.4%, no missing data). The majority of participants were females (n = 130, 87.8%), married (n = 117, 79.1%), and aged between 25 and 35 years (n = 99, 66.9%). Approximately, 60% of participants had more than two children, while 25% of the participants had no children (n = 25). In addition, around 80% of participants worked more than five years (n = 114, 77%). The baseline characteristics of the participants are shown in Table 2.

Table 2. Sociodemographic characteristics (Total = 148)

Baseline characteristics of the participants	n (%)
Gender	
Male	18 (12.2)
Female	130 (87.8)
Age	
<25 years	11 (7.4)
25–35 years	99 (66.9)
36–45 years	29 (19.6)
>45 years	9 (6.1)

Marital status	
Single	24 (16.2)
Married	117 (79.1)
Divorced	5 (3.4)
Widowed	2 (1.4)
Number of children	
Zero	37 (25)
One	24 (16.2)
2–3	66 (44.6)
>3	21 (14.2)
Years of experience	
<5 years	34 (23)
5–10 years	58 (39.2)
>10 years	56 (37.8)

3.2 Emotional Exhaustion (EE) Scale Component

Descriptive statistics of the EE component are illustrated in table (3). At least 40% of the participants felt emotionally drained from work, fatigued when they get up in the morning to face another day on the job, burned out from their job and they were working too hard on the job several times per week, while around 60% of them felt that they were used up at the end of the work at least several times per week. In addition, around 25% of the participants never felt frustrated by their job (n = 39, 26.4%) and never felt at the end of their life due to their job (n = 38, 25.7%).

Table 3: Distribution of Emotional Exhaustion statements (Total = 148)

Emotional Exhaustion statements start with I feel	**Never**	**Sometimes per year**	**Once per month**	**Sometimes per month**	**Once per week**	**Sometimes per week**	**Everyday**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**
1) Emotionally drained from work	4 (2.7)	16 (10.8)	21 (14.2)	27 (18.2)	21 (14.2)	26 (17.6)	33 (22.3)
2) Used up at end of the workday	2 (1.4)	7 (4.7)	17 (11.5)	18 (12.2)	16 (10.8)	32 (21.6)	56 (37.8)
3) Fatigued when I get up in the morning to face another day on the job	8 (5.4)	12 (8.1)	19 (12.8)	24 (16.2)	18 (12.2)	30 (20.3)	37 (25)
4) Working with people all day is a strain for me	10 (6.8)	15 (10.1)	30 (20.3)	25 (16.9)	17 (11.5)	24 (16.2)	27 (18.2)
5) Burned out from my work	11 (7.4)	17 (11.5)	21 (14.2)	16 (10.8)	20 (13.5)	27 (18.2)	36 (24.3)
6) Frustrated by my job	39 (26.4)	22 (14.9)	11 (7.4)	13 (8.8)	21 (14.2)	18 (12.2)	24 (16.2)
7) I am working too hard on my job	8 (5.4)	19 (12.8)	17 (11.5)	20 (13.5)	24 (16.2)	18 (12.2)	42 (28.4)
8) Working with people directly puts too much stress on me	17 (11.5)	24 (16.2)	28 (18.9)	19 (12.8)	22 (14.9)	17 (11.5)	21 (14.2)
9) I am at the end of my life due to this job	38 (25.7)	27 (18.2)	16 (10.8)	7 (4.7)	19 (12.8)	18 (12.2)	23 (15.5)

3.3 Depersonalization (DP) Scale Components

Results of the DP component showed that around 10-15% of the respondents suffered from depersonalization on daily basis (Everyday). Nonetheless, around 20-45% of them reported no depersonalization. A detailed description of DP scale items is presented in Table 4.

Table 4. Distribution of Depersonalization statements (Total = 148)

Depersonalization statements start with I feel	Never	Sometimes per year	Once per month	Sometimes per month	Once per week	Sometimes per week	Everyday
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
1) I feel I treat some recipients as if they were impersonal objects	59 (39.9)	31 (20.9)	9 (6.1)	15 (10.1)	13 (8.8)	10 (6.8)	11 (7.4)
2) I have become more callous toward people since I took this job	44 (29.7)	34 (23)	24 (16.2)	15 (10.1)	11 (7.4)	6 (4.1)	14 (9.5)
3) I worry that this job is hardening me emotionally	38 (25.7)	33 (22.3)	27 (18.2)	12 (8.1)	6 (4.1)	10 (6.8)	22 (14.9)
4) I do not care what happens to some recipients	64 (43.2)	25 (16.9)	18 (12.2)	12 (8.1)	7 (4.7)	7 (4.7)	15 (10.1)
5) I feel recipients blame me for some of their problems	29 (19.6)	22 (14.9)	28 (18.9)	22 (14.9)	15 (10.1)	11 (7.4)	21 (14.2)

3.4. Personal Accomplishment (PA) Scale Components

As shown in table 5, the personal accomplishment component of the burnout syndrome was analyzed. Approximately, one-third of the participants stated that they felt they were positively influencing other people's lives through their work, felt exhilarated after working closely with the recipients, and accomplished many worthwhile things in their job. In addition, one in four pharmacists stated that they dealt very effectively and calmly with the problems of their recipients including emotional problems. In contrast, around 10% of the participants never felt exhilarated after working closely with their recipients and 5% stated that they never felt very energetic and never understood the feelings of their recipients easily.

Table 5. Distribution of personal accomplishment statements (Total = 148)

Statements	Never	Sometimes per year	Once per month	Sometimes per month	Once per week	Sometimes per week	Everyday
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
1) I can easily understand how my recipients feel about things	8 (5.4)	15 (10.1)	21 (14.2)	29 (19.6)	21 (14.2)	29 (19.6)	25 (16.9)
2) I deal very effectively with the problems of my recipients	6 (4.1)	7 (4.7)	20 (13.5)	21 (14.2)	22 (14.9)	35 (23.6)	37 (25)
3) I feel I am positively influencing other people's lives through my work	5 (3.4)	14 (9.5)	18 (12.2)	24 (16.2)	17 (11.5)	22 (14.9)	48 (32.4)
4) I feel very energetic	8 (5.4)	13 (8.8)	28 (18.9)	34 (23)	17 (11.5)	30 (20.3)	18 (12.2)
5) I can easily create a relaxed atmosphere with my recipients	5 (3.4)	14 (9.5)	18 (12.2)	28 (18.9)	18 (12.2)	36 (24.3)	29 (19.6)
6) I feel exhilarated after working closely with my recipients	12 (8.1)	16 (10.8)	19 (12.8)	16 (10.8)	18 (12.2)	18 (12.2)	49 (33.1)
7) I have accomplished many worthwhile things in this job	7 (4.7)	20 (13.5)	16 (10.8)	20 (13.5)	18 (12.2)	19 (12.8)	48 (32.4)
8) In my work, I deal with emotional problems very calmly	6 (4.1)	13 (8.8)	16 (10.8)	23 (15.5)	22 (14.9)	30 (20.3)	38 (25.7)

3.5 MBI Components and Burnout Level

Table 6 shows the breakdown of MBI components and the level of burnout among the participants. Almost 60% (n = 86) of the pharmacists had high levels of burnout in the EE component compared to 24% of them who reported

low levels of burnout. In the DP domain, 62 (41.9%) participants reported high levels of burnout, 33 (22.3%) reported moderate levels of burnout, and 53 (35.8%) reported low levels of burnout. On the PA scale, eighty-nine pharmacists (60.1%) were found to have a high burnout level (low accomplishment) and 33 pharmacists only (22.3%) had a low burnout level (High accomplishment). The overall prevalence of burnout among pharmacists is as high as 58.1%.

Table 6. MBI components and burnout level

	Burnout level		
	Low	**Moderate**	**High**
	n (%)	**n (%)**	**n (%)**
Emotional Exhaustion	36 (24.3)	26 (17.6)	86 (58.1)
Depersonalization	53 (35.8)	33 (22.3)	62 (41.9)
Personal Accomplishment	33 (22.3)	26 (17.6)	89 (60.1)

3.6 Association between Demographics, Emotional Exhaustion, Depersonalization & Personal Accomplishment

Table 7 illustrates the associations between high EE, high DP, low PA, and baseline characteristics of the participants. No statistical differences were found between the baseline characteristics of the pharmacists and the three aspects of burnout (EE, DP, and PA).

Table 7. Association between sociodemographic characteristics and each of Emotional Exhaustion, Depersonalization, and Personal Accomplishment

		High EE		**High DP**		**Low PA**	
		n (%)	**P-value**	**n (%)**	**P-value**	**n (%)**	**P-value**
Gender	Male	9 (50)	0.457	6 (33.3)	0.432	4 (22.2)	0.993
	Female	77 (59.2)		56 (43.1)		29 (22.3)	
Age	<25 years	5 (45.5)	0.569	4 (36.4)	0.622	3 (27.3)	0.888
	25 - 35 years	61 (61.6)		43 (43.4)		23 (23.2)	
	36 - 45 years	16 (55.2)		13 (44.8)		5 (17.2)	
	>45 years	4 (44.4)		2 (22.2)		2 (22.2)	
Marital status	Single	13 (54.2)	0.718	9 (37.5)	0.893	9 (37.5)	0.140
	Married	68 (58.1)		50 (42.7)		23 (19.7)	
	Divorced/Widowed	5 (71.4)		3 (42.9)		1 (14.3)	
Number of children	Zero	21 (56.8)	0.791	16 (43.2)	0.984	10 (27)	0.592
	One	16 (66.7)		10 (41.7)		7 (29.2)	
	2 - 3	38 (57.6)		28 (42.4)		12 (18.2)	
	>3	11 (52.4)		8 (38.1)		4 (19)	
Years of experience	<5 years	17 (50)	0.301	16 (47.1)	0.765	8 (23.5)	0.931
	5 - 10 years	38 (65.5)		24 (41.4)		12 (20.7)	
	>10 years	31 (55.4)		22 (39.3)		13 (23.2)	

4. Discussion

The present study aimed to determine the prevalence, characteristics, and determinants of burnout among pharmacists in primary healthcare facilities in Bahrain. The results showed a high prevalence of burnout among pharmacists in Bahrain (58.1%). All the components of burnout were affected; personal accomplishment, emotional exhaustion, and depersonalization. However, the study found no association between these aspects of burnout syndrome and pharmacists' baseline characteristics.

The high prevalence of burnout in this study is inconsistent with the reported rates of burnout among pharmacists and other healthcare workers. For instance, a systematic review of 60 studies from low- and middle-income countries found that more than 50% of primary care professionals had a moderate to high level of emotional exhaustion and reduced personal accomplishment, while more than 33% of them had a moderate to a high level of depersonalization. In addition, the review found that the prevalence of severe burnout among family physicians was as high as 87.9% in some countries. (Wright et al., 2022). Another systematic review was conducted in the United States to determine the prevalence and characteristics of burnout among pharmacists. The reviewers analyzed 15 studies and found that the prevalence estimates of high EE, high DP, and low PA were 41% (95% CI; 27%-54%), 20% (95% CI; 7%-32%), and 32% (95% CI; 14%-50%), respectively. However, substantial heterogeneity was observed in both reviews. (McQuade et al, 2020).

Some studies evaluated the possible predictors of high rates of burnout among pharmacists. These potential contributors included being female, advanced age, working for long hours, having high workflow loads, and understaffing (Johnston, O'Reilly, Scholz, Georgousopoulou, & Mitchell, 2021). While our study revealed no significant associations between pharmacists' characteristics and the components of burnout syndrome, such associations were inconsistently reported in the literature. This finding in the present study can be explained by the high prevalence rate of burnout among the participants. In other words, most pharmacists regardless of their baseline characteristics suffered from burnout syndrome.

Compared to other medical professions in Bahrain, this study found that pharmacists had a higher prevalence of burnout. This finding could be attributed to the impact of the Coronavirus disease (COVID-19) pandemic on healthcare professionals and the work environment as reported in the literature. (Jones, Clark, & Mohammad, 2021; Langran, Mantzourani, Hughes, Hall, & Willis, 2022). In addition, this higher prevalence of burnout among pharmacists could be due to the uncertainty regarding healthcare reform, being underappreciated by supervisors, time constraints, lack of control, and performance metrics. Surprisingly, some studies found that the prevalence of burnout among pharmacists is higher than that found among surgeons, emergency-medicine physicians, and oncologists (Jones, Roe, Louden, & Tubbs, 2017).

Although prevention of burnout syndrome is complex, health institutions should take immediate actions to address and prevent burnout syndrome. Evidence-based interventions to address burnout among pharmacists are urgently needed. Several interventions to prevent burnout syndrome were proposed. For instance, encouraging work-life balance, peer support, and social gatherings were found to reduce burnout levels among physicians. Improving working conditions by reducing working hours, rest breaks, shift patterns, salary systems, and incentives may also decrease work stress and enhance job satisfaction. (Ahola, Toppinen-Tanner & Seppänen. 2017). Additionally, promoting a self-care environment, and providing mindfulness sessions and exercise programs were linked to favorable outcomes in the work environment and burnout prevention. (Reith, 2018; Zhang, Song, Jiang, Ding, & Shi, 2020).

Policymakers and clinical managers should provide simple and continuous strategies to minimize the burnout of healthcare workers. American medical association, for example, launched the STEPS Forward program for physicians to minimize stress and reignite professional fulfillment at work. This program addresses healthcare workers' health by providing plans to prevent burnout, empower physicians, and improve physician resiliency. Prevention of burnout syndrome is complicated. Encouraging work-life balance, peer support, and social gatherings were found to reduce burnout levels among physicians. Additionally, promoting a self-care environment, and providing mindfulness sessions and exercise programs were linked to favorable outcomes in the work environment and burnout prevention. (American Medical Association, 2022).

This study has several strengths. This study is, to the authors' knowledge, the first to assess the prevalence and characteristics of burnout among pharmacists in Bahrain. Another strength of this study is that it has a high response rate. In addition, a well-known validated questionnaire was utilized to evaluate burnout syndrome. This study, however, has several limitations. The study adopted a cross-sectional study design which limits the proof of casual relationships and imposes temporal limitations. Additionally, the survey did not include all the determinants of burnout among pharmacists. Factors such as working hours, number of patients per month or shift, pharmacists'

income, and underlying comorbidities were not elicited from the participants.

Further studies are needed to determine these interventions' effectiveness in managing burnout syndrome. In addition, studies to determine the impacts and consequences of burnout syndrome on pharmacists are needed as well.

5. Conclusion

In conclusion, this study revealed an alarmingly high prevalence of burnout syndrome among pharmacists in primary care centers in Bahrain. Burnout continues to be a significant challenge that should be identified and addressed as early as possible to prevent negative consequences. Evidence-based preventive strategies and interventions to reduce burnout levels among pharmacists are urgently needed.

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Competing Interests Statement

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