

Prevalence and Characteristics of Health and Wellness Programs for Arab Hospitals' Employees: A Cross-Sectional Study

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Background: Compared to the general workforce, hospital staff has a greater incidence of chronic diseases and mental health illnesses. Wellness programs have been shown to improve the health and well-being of hospital employees by reducing risk factors and promoting healthy behaviors. In the Arab World, there are no available studies on the number, nature, or impact of wellness services provided to healthcare workers.

Objective: The study aims to assess the prevalence, characteristics, and components of health and wellness programs targeting hospital employees in Arab countries. It also aims to test the association of hospitals' characteristics and the challenges faced by these hospitals with the availability of such programs.

Methods: A cross-sectional study was conducted through an online questionnaire in English and Arabic emailed to directors of Arab hospitals registered in the Arab Hospital Federation.

Results: Only 39.5% of the hospitals in the Arab region have an established wellness program. No significant association was found between hospital characteristics and the availability of these wellness programs. The most provided services for hospital staff are Flu vaccine (90.7%), pre-employment medical exam (79.1%), healthy food options (65.1%), and health risk assessment (60.5%), while the least common provided services are mental health (20.9%) and stress management (23.3%). The most common challenges facing wellness services (scale: 0–10) are financial restriction (5.95), creating a culture of health (5.88), and motivating employees (5.56). Only 4.7% of hospitals provide incentives to participate in their wellness programs.

Conclusion: In general, Arab hospitals lack a wellness culture, and more investment is needed in essential wellness services such as mental health, weight reduction, stress management, and smoking cessation.

Keywords: wellness services, well-being, health program, Arab hospitals, hospital staff

Background

Healthcare workers (HCWs) face unique occupational exposures. They work long hours, are subject to shift work and a hectic pace, and suffer from significant stress in jobs that can have life-or-death implications.¹ They also tend to neglect their own health while providing care for others.

Evidence has shown that HCWs have some of the highest rates of health risks in many areas compared to the rest of the population. HCWs were found to have the second highest rate of obesity, following public administration employees.² HCWs also have a high prevalence of cardiovascular risk factors^{3,4} and are more likely to be admitted to the hospital for chronic diseases such as diabetes, coronary artery disease, hypertension, congestive heart failure, and musculoskeletal disorders compared to the general workforce. Sickness absence, dissatisfaction, and distress are also more prevalent among HCWs compared to workers employed in other sectors.⁴ In addition, HCWs have been identified as a high-risk population for burnout;^{5–7} a psychological syndrome characterized by emotional exhaustion, a sense of

helplessness, depersonalization, negative attitudes toward work and life, and a diminished sense of personal achievement.⁸ Furthermore, HCWs' highly prevalent burnout has been associated with inadequate patient care,^{9,10} which results in reduced patient satisfaction,^{9,10} impaired quality of care,^{11,12} and consequently increases the probability of medical errors.^{13–18}

These elevated rates of health risks and chronic diseases among HCWs subsequently lead to high healthcare costs. According to a 2012 Towers Watson/National Business Group on Health survey, hospital employees' healthcare costs are 13% more than the overall US workforce.¹⁹ Elevated rates of health risks and chronic diseases are also predictors of increased sick leave,²⁰ which in turn increases both direct and indirect costs on employers.²¹ Direct costs include wages paid during sick leave and the cost of occupational health care, whereas indirect costs include lost productivity, the cost of alternative workers, overtime, and administrative fees.²² Moreover, employees with higher engagement levels have lower levels of sickness absence among staff, and also have lower spending on agency and bank staff.²³ As a result, preserving employees' well-being should be a major concern for hospitals and health systems. In addition to improving employees' general health and therefore decreasing their healthcare costs in the hospitals, prioritizing HCWs' physical and mental health resulted in better patient care.^{24–26}

Improving healthcare professionals' physical, emotional, and psychological health and well-being has been gaining interest worldwide.¹⁸ To pursue this objective, hospitals are establishing health and wellness programs and services. In short, health is a state of being, whereas wellness is the state of living a healthy lifestyle.²⁷ Health refers to physical, mental, and social well-being; wellness seeks to improve this well-being.²⁷ Health and wellness programs are defined as services or activities that intend to improve or promote the health and fitness of individuals. Services offered may include risk assessment tools, behavior modification programs, educational opportunities, workplace adjustments, immunization campaigns, employee assistance/mental health services, smoking cessation programs, weight loss programs, stress management, and personal health coaching. Such interventions targeting HCWs have been shown to positively affect exercise frequency, smoking behavior, and weight control²⁸ and reduce the risk of developing chronic diseases in this population. Furthermore, stress management and mental well-being programs increased healthcare workers' coping skills and promoted healthy behavior.^{29–31}

According to the American Hospital Association survey, more than 80% of US Hospitals do offer established health and wellness programs or similar initiatives for employees to improve their health.³² There have been no such surveys conducted in the Arab region, including almost 22 countries with different income levels. In the United States, Health care facilities are largely owned and operated by private sector businesses, and only 21% are government owned.³³ In the Arab region, health care systems are mainly private in some countries such as Lebanon³⁴ and Palestine³⁵ and are mostly run by the government in other countries such as Kuwait,³⁶ Oman,³⁷ Egypt,³⁸ Saudi Arabia,³⁹ Algeria,⁴⁰ and Tunisia.⁴¹ Thus, this study aims to assess the prevalence, characteristics, and components of health and wellness programs targeting hospital employees in Arab countries. Furthermore, it aims to test the association between the hospitals' characteristics and the challenges faced by these hospitals, with the availability of such programs.

Methods

Study Design and Data Collection

This is a cross-sectional study conducted at the American University of Beirut (AUB) after the approval of the institutional review board (IRB). To allocate our sample of hospitals in the Arab region, the Arab Hospital Federation (AHF) was contacted. AHF is a regional nongovernmental organization founded in 2002 to represent and serve Arab hospitals. It has almost 500 members from the 22 Arab countries defined by the Arab League. Our sample population included all hospitals, private or governmental, academic, and non-academic, and registered in the AHF. Any hospital not registered in the AHF was excluded. An email invitation (in Arabic and English) was sent to the secretary of the AHF, who later forwarded the invitation to hospital directors of all hospitals registered in the federation. After one week, another reminder was sent. A final third reminder was sent four weeks after the original email.

Each email invitation contained an informed consent and a link to an online survey that populated the database located on the AUB servers. The hospital directors who were not able to fill out the survey themselves forwarded it to

a designated professional at the institution who was knowledgeable of the hospitals' programs including quality officers, human resource managers, and other concerned HCWS. Out of the 500 reached hospitals, 43 hospitals responded to the survey (8.6% response rate). Data collected were anonymous, confidential, and protected.

Survey Content

The "hospital employee health and wellness programs" survey was created and validated by the American Hospital Association (AHA).³² It included three main sections covering the hospitals' characteristics, the wellness program components and their features, and the challenges encountered by these hospitals to establish and maintain a wellness program.

Data and Variables

The categorical variables were: country income level, institution type (private v/s government), location (urban v/s rural), affiliation with an academic institution (academic v/s non-academic), number of beds, number of full-time employees, job title of the person who is filling the questionnaire, availability of a wellness center, implementation of a tobacco-free policy, offering of web-based health and wellness resources, availability of a reward system for wellness initiatives, measuring the return on investment (which is used to calculate the benefit of an investment by dividing the return of the investment by the total cost of investment),⁴² having program benchmark (which is a set of metrics used to compare the project performance to the designed plan),⁴³ and type of entity that administers the wellness program (private company, v/s human resources, v/s hospital administration).

For each wellness program, we assessed if it was offered to doctors, if participation was mandatory, and if the program was free of charge.

To determine the challenges encountered to establish and maintain a wellness program, we used the challenges domain from the 26-Qs "hospital employee health and wellness programs survey" created and validated by the American Hospital Association (AHA).³² It includes potential challenges that hospitals might face when offering employee health and wellness programs or services. The challenge scores range from zero to ten (zero for no challenges encountered and 10 for extreme challenges).³²

Statistical Analysis

Data were analyzed using SPSS version 20. Frequency and percentages were presented for categorical variables, whereas medians, means, and standard deviations were presented for continuous variables. To test the association between the primary outcome (having an established wellness center) and independent variables, Mann–Whitney *U*-Test was used for continuous variables and the Chi-square test (or Fisher exact test if any cell < 5) for categorical variables. Any P-value less than or equal to 0.05 was considered statistically significant.

Results

Forty-three hospitals completed the survey. **Figure 1** shows the percentage of participating hospitals from each country. The highest response was from Kuwait (32.6%), followed by Saudi Arabia (27.9%) and Lebanon (20.9%).

Table 1 shows the participating hospitals' descriptive characteristics. More than half of the hospitals were located in a high-income level country (62.8%), were private hospitals (67.4%), and were non-academic (55.8%). Most hospitals had less than 160 beds (58.1%) and employed 400 or more full-time employees (65.1%). Almost half reported having a tobacco-free policy (51.2%), 37.2% had web-based wellness resources, and 23.3% had a wellness newsletter.

Only 39.5% of the hospitals had a structured wellness center. More than half of the wellness centers were administrated by the hospital administration (56.2%), 11.8% had a reward system, and 23.5% had program benchmarks. To add, 23.5% had measured the return on investment, with 100% reporting a positive result.

Table 2 shows the wellness services provided at the hospitals. For each wellness service, we assessed whom it was delivered to (doctors, staff, or both) if it was mandatory, applied routinely, and free of charge. Most of the hospitals offered individual risk assessments, influenza vaccines, and pre-employment evaluations for both doctors (79.1%, 86%, 72.1%) and staff (83.7%, 90.7%, 79.1%,) and these were free of charge for the most part (81.4%, 81.4%, 58.1%

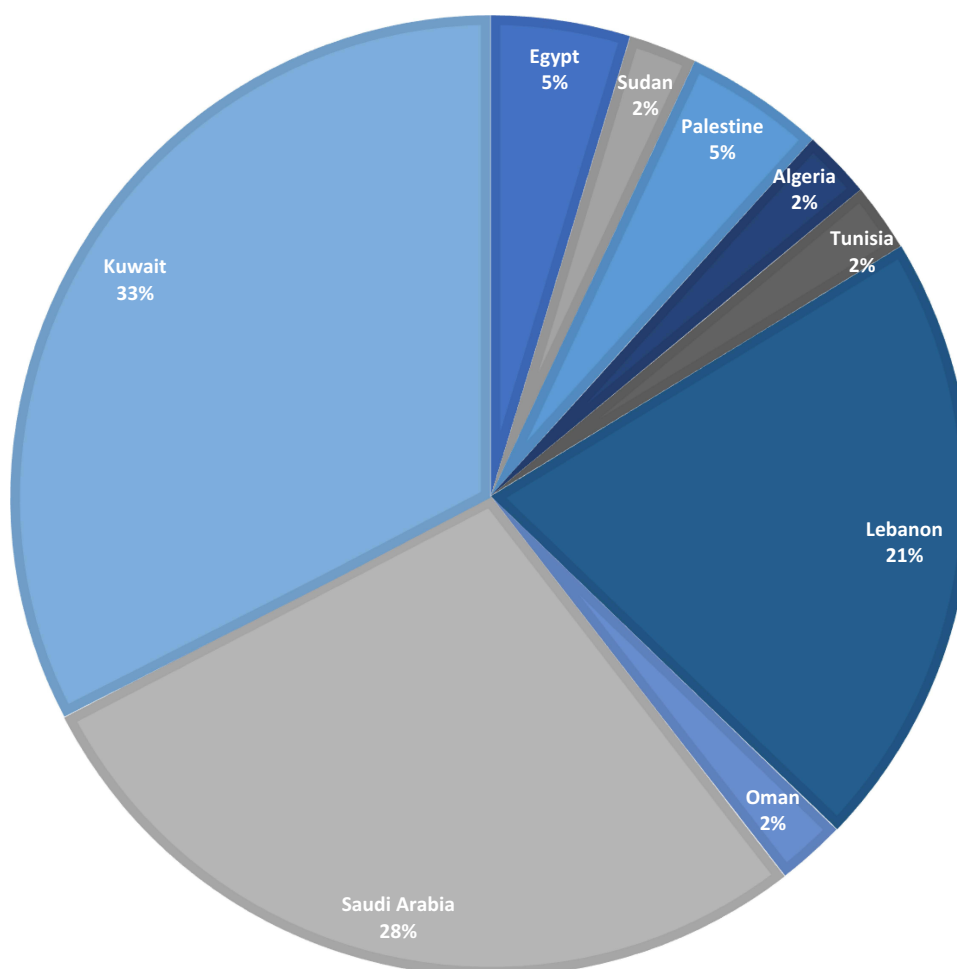


Figure 1 Country-wise Distribution of Participating Hospitals.

respectively). In more than half of the sample, health risk assessments prevention programs and healthy food programs were delivered to both doctors (53.5%, 53.5%, 69.8%) and staff (60.5%, 55.8%, 65.1%) and were free of charge (58.1%, 46.5%, 11.6%). Almost a third of the hospitals provided biometric assessment for doctors (34.9%) and staff (32.6%), and

Table 1 Descriptive Characteristics of the Participating Hospitals

Variables	Frequency (N)	Percentage (%)
Country Income Level (N=43)		
Low and low middle	7	16.3
Middle	9	20.9
High	27	62.8
Institution (N=43)		
Governmental	14	32.6
Private	29	67.4
Location (N=43)		
Urban	41	95.3
Rural	2	4.7
Affiliated with an academic institution (N=43)		
Non-academic	24	55.8
Academic	19	44.2

(Continued)

Table 1 (Continued).

Variables	Frequency (N)	Percentage (%)
Number of beds (N=43)		
Less than 160	25	58.1
161–264	8	18.6
265 or more	10	23.0
Number of full-time employees (N=43)		
Less than 400	15	34.9
400 or more	28	65.1
Job title of the personnel who filled the survey (N=43)		
Hospital director	9	20.9
HR	4	9.3
Quality officer	8	18.6
Other concerned health care workers	22	51.2
Tobacco-free policy (N=43)		
Yes	22	51.2
No	21	48.8
Web-based health and wellness resources (N=43)		
Yes	16	37.2
No	27	62.8
Wellness newsletter (N=43)		
Yes	10	23.3
No	33	76.7
Having a well-established wellness program (N=43)		
Yes	17	39.5
No	26	60.5
Who administers wellness program (N=16)		
Private company	1	6.2
Human resources	6	37.5
Hospital administration	9	56.2
Have a rewarding system (N=17)		
Yes	2	11.8
No	15	88.2
Measured the return on investment (N=17)		
Yes	4	23.5
No	13	76.5
Having program benchmark (N=17)		
Yes	4	23.5
No	13	76.5

they were free of charge a third of the time (34.9%). Only 20.9% of the hospitals offered mental health services to their employees (doctors and other staff) and only 14.3% and 23.3% offered stress management services to their doctors and staff respectively. Almost a quarter (or less) of the hospitals reported having other essential services like smoking cessation, weight reduction, and health coaching.

Table 3 shows the association between hospitals' characteristics with the availability of a wellness program. All the hospital characteristics and wellness program features described were not associated with the presence or absence of a wellness program at the hospital.

Table 2 Descriptive Characteristics of Wellness Services Provided by the Hospital

Name of Wellness Service	Total N (%)	Name of Wellness Service	Total N (%)
N=	43		43
Health risk assessment		Healthy food	
For Doctors (yes)	23 (53.5)	For Doctors (yes)	30 (69.8)
For Staff (yes)	26 (60.5)	For Staff (yes)	28 (65.1)
Obligatory (yes)	17 (39.5)	Obligatory (yes)	7 (16.3)
Routine (yes)	16 (37.2)	Routine (yes)	22 (51.2)
Free of charge (yes)	25 (58.1)	Free of charge (yes)	5 (11.6)
Biometric assessment		Weight reduction	
For Doctors (yes)	15 (34.9)	For Doctors (yes)	8 (18.6)
For Staff (yes)	14 (32.6)	For Staff (yes)	8 (18.6)
Obligatory (yes)	8 (18.6)	Obligatory (yes)	1 (2.3)
Routine (yes)	9 (20.9)	Routine (yes)	2 (4.7)
Free of charge (yes)	15 (34.9)	Free of charge (yes)	8 (18.6)
Safety assessment		Health coaching	
For Doctors (yes)	34 (79.1)	For Doctors (yes)	7 (16.3)
For Staff (yes)	36 (83.7)	For Staff (yes)	6 (14.0)
Obligatory (yes)	26 (60.5)	Obligatory (yes)	3 (7.0)
Routine (yes)	29 (67.4)	Routine (yes)	3 (7.0)
Free of charge (yes)	35 (81.4)	Free of charge (yes)	5 (11.6)
Influenza vaccine		Smoking cessation	
For Doctors (yes)	37 (86.0)	For Doctors (yes)	12 (27.9)
For Staff (yes)	39 (90.7)	For Staff (yes)	12 (27.9)
Obligatory (yes)	13 (30.2)	Obligatory (yes)	5 (11.6)
Routine (yes)	32 (74.4)	Routine (yes)	9 (20.9)
Free of charge (yes)	35 (81.4)	Free of charge (yes)	12 (27.9)
Stress management		Mental health program	
For Doctors (yes)	6 (14.0)	For Doctors (yes)	9 (20.9)
For Staff (yes)	10 (23.3)	For Staff (yes)	9 (20.9)
Obligatory (yes)	3 (7)	Obligatory (yes)	3 (7.0)
Routine (yes)	4 (9.3)	Routine (yes)	0 (0)
Free of charge (yes)	7 (16.3)	Free of charge (yes)	9 (20.9)
Prevention program		Pre-employment	
For Doctors (yes)	23 (53.5)	For Doctors (yes)	31 (72.1)
For Staff (yes)	24 (55.8)	For Staff (yes)	34 (79.1)
Obligatory (yes)	18 (41.9)	Obligatory (yes)	33 (76.7)
Routine (yes)	19 (44.2)	Routine (yes)	33 (76.7)
Free of charge (yes)	20 (46.5)	Free of charge (yes)	25 (58.1)

The challenges to establishing and maintaining employee health and wellness programs are shown in Table 4. The highest reported challenges were financial restriction, creating a culture of health, and motivating employees (mean= 5.95, 5.88, and 5.56 respectively). There was no statistical difference in challenges between hospitals that have established wellness programs versus those that do not have a wellness program.

Discussion

In Summary, only 39.5% of the participating Arab hospitals had a structured wellness program. All the hospital characteristics and wellness program features described were not associated with the presence or absence of a wellness center program at the hospital. As for implemented services, flu vaccination, pre-employment evaluations, healthy food, and health risk assessment were among the top four wellness services provided for Arab hospital

Table 3 Bivariate Association Between Hospital Characteristics and Wellness Features with the Availability of an Established Wellness Center at the Hospital

	Established Wellness Center/ Program		P-value
	Yes N (%)	No N (%)	
	17 (39.5)	26 (60.5)	
Country Income Level*			0.095
Low and low middle	1 (5.9)	6 (23.1)	
Middle	6 (35.3)	3 (11.5)	
High	10 (58.8)	17 (65.4)	
Institution			0.757
Governmental	6 (35.3)	8 (30.8)	
Private	11 (64.7)	18 (69.2)	
Location			0.511
Urban	17 (100)	24 (92.3)	
Rural	0 (0)	2 (7.7)	
Affiliated with an academic institution			0.118
Non-academic	7 (41.2)	17 (65.4)	
Academic	10 (58.8)	9 (34.6)	
Number of beds			0.307
Less than 160	8 (47.1)	17 (65.4)	
161–264	3 (17.6)	5 (19.2)	
265 or more	6 (35.3)	4 (15.4)	
Number of full-time employees			0.964
Less than 400	6 (35.3)	9 (34.6)	
400 or more	11 (64.7)	17 (65.4)	
Job title			0.475
Hospital director	6 (35.3)	3 (11.5)	
HR	1 (5.9)	3 (11.5)	
Quality officer	4 (23.5)	4 (15.4)	
Other concerned health care workers	6 (35.3)	16 (61.6)	

employees. Almost a quarter or less of the hospitals reported having other essential services like weight reduction, health coaching, mental health, stress management services, and smoking cessation.

Only 17 Arab region hospitals that participated in our survey (39.5%) had a wellness program in place. This percentage is much lower when compared to the prevalence of wellness programs available in US hospitals (85%).³² In Europe, there is no comprehensive survey examining the prevalence of structured wellness programs in hospitals and medical centers.⁴⁴ Moreover, less than one-quarter of the hospitals in the region reported that they had measured the return on investment. Those that have effectively measured ROI show positive results. This proves that in addition to the benefits of the wellness programs to the HCWs themselves, the investment in such programs is profitable to the hospitals. Most institutions worldwide do not monitor the return on investment of implemented wellness programs. This might be due to companies' unwillingness to engage more time and money in gathering data, distributing surveys, or calculating the variables required to calculate the return on investment.⁴⁵ Given the necessity of assessing ROI to verify the effectiveness of implemented programs,⁴² and the fact that estimating ROI normally takes several years, Arab hospital leaders must commit to measurement, evaluation, and improvement over a multi-year period.

According to our research, the top four wellness services for Arab hospital staff were flu vaccination (90.7%), pre-employment evaluations (79.1%), healthy food (65.1%), and health risk assessment (60.5%). In comparison, the most common services offered by surveyed US hospitals were flu and other immunizations (100%), healthy food (93%), mental health services (93%), and safety programs like ergonomics and workplace violence education (92%).³² The difference in services provided may be attributed to the difference in beliefs and culture among Arab and American

Table 4 Challenges to Offer Successful Employee Health and Wellness Program on a Score from (0–10)

	Total N (%)	Established Wellness Center/ Program		P-value
		Yes	No	
N=	43	17	26	
Motivating employees				0.679
Median	6	6	6	
Mean (SD)	5.56 (2.71)	5.29 (3.02)	5.73 (2.54)	
Measuring program effectiveness				0.930
Median	6	6	5.50	
Mean (SD)	5.23 (2.63)	5.24 (2.77)	5.23 (2.58)	
Creating a culture of health				0.755
Median	6	6	6.5	
Mean (SD)	5.88 (2.90)	5.71 (2.91)	6 (2.94)	
Obtaining employee health information				0.793
Median	5	5	5	
Mean (SD)	5.12 (2.82)	5.29 (2.80)	5 (2.88)	
Financial restraints or limitations				0.980
Median	6	6	6	
Mean (SD)	5.95 (3.00)	6 (2.74)	5.92 (3.21)	
Communicating with employees				0.652
Median	5	6	4.5	
Mean (SD)	4.88 (3.05)	5.24 (3.42)	4.65 (2.83)	

Note: \$ using Mann–Whitney U-Test.

populations. In Arab countries, studies show that mental health literacy, even among healthcare professionals, is limited, and high levels of stigma and negative attitudes towards mental health illness were reported among the public.⁴⁶ Besides, Arab hospital employees often suffer from workplace violence due to the lack of proper policies and legislation addressing workplace violence in many Arab hospitals.^{47–49} Providing workplace safety programs is not possible in the absence of appropriate policies and regulations that both outline a safe workplace environment and prevent events of this nature.

Obesity ranks fifth worldwide, among known risk factors for death and chronic illnesses, including cardiovascular disease, cancer, and diabetes, aside from mental health difficulties.⁵⁰ The Arab countries have witnessed a considerable increase in the incidence of obesity over the last few years, with approximately 30% of the Arab population being classified as obese.⁵¹ HCWs in particular have some of the highest rates of obesity compared to other occupations, only second to those who work in public administration.² This finding was also described in recent studies in Nigeria and England where almost one-quarter of the participating HCWs were obese.^{52,53} Although lifestyle improvements, such as healthy food, exercise, and behavior changes, are still the cornerstones of obesity management,⁵⁴ participating hospitals in this study rarely reported these interventions. Our study showed that only a small percentage of Arab hospitals incorporated weight management (18.6%) and health coaching (14%) services into their wellness programs. A large RCT found that wellness programs promote behavior change, with employees who participate in worksite wellness programs reporting an 8.3 percentage point higher rate in engaging in regular exercise and a 13.6 percentage point higher rate in weight management than those who work at sites where a program is not available.⁵⁵ This emphasizes the necessity of offering weight management services to Arab HCWs, especially in settings where the prevalence of overweight and obesity is high.

There was also a particularly low prevalence of available mental health services in our study population: less than a quarter of the participating hospitals had a mental health program or a stress management program. Even though work stress is a major concern in hospitals,^{44,55,56} specifically in the Arab region, it was not among the top issues addressed in the surveyed hospitals in our study. Burnout among health care professionals was found to be highly prevalent in Arab

countries across all burnout categories, including high Emotional Exhaustion (20.0–81.0%), high Depersonalization (9.2–80.0%), and low Personal Accomplishment (13.3–85.8%), according to a systematic review of 19 studies.⁴⁴ Evidence has proven the efficacy of mindfulness-based stress management approaches in reducing burnout and promoting resilience in healthcare providers.⁵⁷ Alleviating burnout among HCWs consequently decreases its negative outcome on patient quality of care including unsafe care, unprofessional behaviors, and low patient satisfaction.⁵⁸ Thus, more efforts should be deployed in medical centers in the Arab region to address the growing need for mental health services among HCWs.

As for smoking among HCWs, a recent meta-analysis and systematic review including 229 studies found that the overall prevalence of tobacco use in HCWs was 21%.⁵⁹ This figure is alarming as HCWs play an important role in curbing the global tobacco epidemic.⁶⁰ The importance of HCWs serving as role models and setting an example by not smoking tobacco is especially stressed in Article 14 of the WHO Framework Convention on Tobacco Control (FCTC).⁶¹ Despite its importance, only 27.9% of the participating hospitals provided smoking cessation services for their staff compared to 85% of the surveyed US hospitals.³² This highlights the importance of tobacco treatment and preventive measures specifically targeting HCWs through workplace interventions, restriction on smoking while at work, and provision of cessation support for smoking HCWs.

No significant association was found between hospitals' characteristics and having a wellness program. This finding is opposite to the results of a study evaluating wellness programs in 338 US Hospitals, where larger hospitals were more likely than smaller hospitals to offer wellness programs ($P < 0.01$).⁶² The absence of this association in Arab hospitals proves that the country's income level, hospital capacity, its type (private or governmental/academic or non-academic), and its location do not affect the implementation of such a program. Indeed, the scarcity of established wellness programs in Arab hospitals may be directly linked to the absence of wellness culture in Arab workplaces and the presence of a knowledge gap on the importance of these wellness programs for hospital employees' well-being and consequently their quality of work. This highlights the need to educate hospital directors and employees in the Arab hospitals on the importance of wellness services to both the employers and the employees through scientific and realistic evidence such as successful scenarios from other hospitals and institution, and published wellness articles.

It is also worth mentioning that the top three challenges faced by hospitals in the Arab region were similar to those reported by US hospitals, namely: financial restrictions (5.95 vs 0.5.5), creating a culture of health (5.88 vs 5.6), and motivating employees (5.56 vs 6) (respectively).³² Even though financial constraints were the most commonly reported challenge; a higher level of country income was not associated with a higher percentage of having established wellness programs.

Studies have shown that incentives encouraging employees to join wellness programs are linked to higher participation rates.⁵⁶ In the Arab region, only 4.7% of hospitals provided incentives to participate in a wellness program, whereas, in the US, 79% provided incentives and 21% imposed consequences for not participating.³² Thus, hospital managers should encourage their employees to participate in the provided wellness services by offering different kinds of incentives such as cash prizes, gift cards, paid day-offs, and others.

Strengths and Limitations

There is a lack of literature on wellness programs in the Arab region. This study is the first to address wellness programs in Arab region hospitals. However, it has a few limitations. The main limitation of our study is the low response rate and consequently the small sample size. The low response rate was lower than expected since the survey was administered during the beginning of the COVID-19 pandemic (from January to September 2020), when hospitals were focusing all of their efforts on preparing for the emerging outbreak. Even though only 43 hospitals participated in our survey, our sample offered a good representation of the Arab region as it included hospitals from high, middle, and low-income countries. Another limitation is the cross-sectional design which only provides a snapshot of the available data. Furthermore, employee perceptions of the provided wellness services and their suggestions for potential future services were not assessed. Future research may aid in addressing this issue. Finally, participation was only limited to hospitals registered in the Arab Hospital Federation database.

Conclusion

Results have shown a significant shortage in the establishment of wellness programs in Arab hospitals, especially for essential services such as mental health and weight management. The availability of such programs was not associated with having a higher income or other hospital characteristics, highlighting the lack of wellness culture rather than the financial constraint.

To promote a culture of wellness in the Arab regions, efforts should be made to educate hospital directors and employees in the Arab hospitals on the importance of wellness services for improving healthcare workers' well-being, enhancing the quality of patient care consequently, and decreasing the burden of employees' healthcare costs on the hospitals.

Future studies should highlight the long-term impact of providing wellness services to Arab hospital employees on both, the healthcare workers, and their organizations.

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The authors declare that they have no competing interests in this work.

References

- Caruso CC. Negative impacts of shiftwork and long work hours. *Rehabil Nurs*. 2014;39(1):16–25. doi:10.1002/rnj.107
- Luckhaupt SE, Cohen MA, Li J, et al. Prevalence of obesity among U.S. workers and associations with occupational factors. *Am J Prev Med*. 2014;46(3):237–248. doi:10.1016/j.amepre.2013.11.002
- Sharma D, Vatsa M, Lakshmy R, et al. Study of cardiovascular risk factors among tertiary hospital employees and their families. *Indian Heart J*. 2012;64(4):356–363. doi:10.1016/j.ihj.2012.06.001
- Osei-Yeboah J, Kye-Amoah KK, Owiredu WK, et al. Cardiometabolic risk factors among healthcare workers: a cross-sectional study at the sefwi-wiawso municipal hospital, Ghana. *Biomed Res Int*. 2018;2018:8904548. doi:10.1155/2018/8904548
- Bender A, Farvolden P. Depression and the workplace: a progress report. *Curr Psychiatry Rep*. 2008;10(1):73–79. doi:10.1007/s11920-008-0013-6
- Morse G, Salyers MP, Rollins AL, et al. Burnout in mental health services: a review of the problem and its remediation. *Adm Policy Ment Health Ment Health Serv Res*. 2012;39(5):341–352. doi:10.1007/s10488-011-0352-1
- Gelsema TI, Van Der Doef M, Maes S, et al. A longitudinal study of job stress in the nursing profession: causes and consequences. *J Nurs Manag*. 2006;14(4):289–299. doi:10.1111/j.1365-2934.2006.00635.x
- Maslach C, Jackson SE. The measurement of experienced burnout. *J Organ Behav*. 1981;2(2):99–113. doi:10.1002/job.4030020205
- Dyrbye LN, Thomas MR, Massie FS, et al. Burnout and suicidal ideation among US medical students. *Ann Intern Med*. 2008;149(5):334–341. doi:10.7326/0003-4819-149-5-200809020-00008
- Haas JS, Cook EF, Puopolo AL, et al. Is the professional satisfaction of general internists associated with patient satisfaction? *J Gen Intern Med*. 2000;15(2):122–128. doi:10.1046/j.1525-1497.2000.02219.x
- Grol R, Mokkink H, Smits A, et al. Work satisfaction of general practitioners and the quality of patient care. *Fam Pract*. 1985;2(3):128–135. doi:10.1093/fampra/2.3.128
- Melville A. Job satisfaction in general practice implications for prescribing. *Soc Sci Med*. 1980;14(6):495–499. doi:10.1016/S0271-7123(80)80055-1
- Shanafelt TD, Boone S, Tan L, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Arch Intern Med*. 2012;172(18):1377–1385. doi:10.1001/archinternmed.2012.3199
- Shanafelt TD, Balch CM, Bechamps G, et al. Burnout and medical errors among American surgeons. *Ann Surg*. 2010;251(6):995–1000. doi:10.1097/SLA.0b013e3181bfdbab3
- Shanafelt TD, Bradley KA, Wipf JE, et al. Burnout and self-reported patient care in an internal medicine residency program. *Ann Intern Med*. 2002;136(5):358–367. doi:10.7326/0003-4819-136-5-200203050-00008
- West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296(9):1071–1078. doi:10.1001/jama.296.9.1071
- Firth-Cozens J, Greenhalgh J. Doctors' perceptions of the links between stress and lowered clinical care. *Soc Sci Med*. 1997;44(7):1017–1022. doi:10.1016/S0277-9536(96)00227-4
- National Health Service England. NHS five year forward view; 2014. Available from: <https://www.england.nhs.uk/publication/nhs-five-year-forward-view/>. Accessed March 30, 2023.
- Towers Watson, National Business Group of Health. Employer survey on purchasing value in health care; 2012. Available from: <https://www.kff.org/wp-content/uploads/sites/3/2012/09/towers-watson-nbgh-2012.pdf>. Accessed March 30, 2023.
- van den Berg S, Burdorf A, Robroek SJW. Associations between common diseases and work ability and sick leave among health care workers. *Int Arch Occup Environ Health*. 2017;90(7):685–693. doi:10.1007/s00420-017-1231-1
- Rahme DV, Razzouk GN, Musharrafieh UM, et al. Sickness-related absence among employees at a tertiary care center in Lebanon. *Arch Environ Occup Health*. 2006;61(6):279–284. doi:10.3200/aeoh.61.6.279-284

22. Society for Human Resource Management, KRONOS. Total financial impact of employee absences in the U.S; 2014. Available from: https://www.shrm.org/hr-today/news/hr-magazine/documents/kronos_us_executive_summary_final.pdf. Accessed March 30, 2023.
23. NHS England. Employee engagement, sickness absence and agency spend in NHS trusts; 2018. Available from: <https://www.england.nhs.uk/wp-content/uploads/2018/03/wres-engagement-absence-agency-spend.pdf>. Accessed March 30, 2023.
24. Hall LH, Johnson J, Watt I, et al. Healthcare staff wellbeing, burnout, and patient safety: a systematic review. *PLoS One*. 2016;11(7):e0159015. doi:10.1371/journal.pone.0159015
25. Wallace JE, Lemaire JB, Ghali WA. Physician wellness: a missing quality indicator. *Lancet*. 2009;374(9702):1714–1721. doi:10.1016/s0140-6736(09)61424-0
26. Firth-Cozens J. Interventions to improve physicians' well-being and patient care. *Soc Sci Med*. 2001;52(2):215–222. doi:10.1016/s0277-9536(00)00221-5
27. Stoewen DL. Health and wellness. *Can Vet J*. 2015;56(9):983–984.
28. Matke S, Schnyer C, Van Busum KR. A Review of the U.S. workplace wellness market. *Rand Health Q*. 2013;2(4):7.
29. Jaspersen DB. RadSurg wellness program: improving the work environment and the workforce team. *Radiol Manage*. 2010;32(1):48–53.
30. Blake H, Zhou D, Batt ME. Five year workplace wellness intervention in the NHS Improves health behaviours; 2011. Available from: <https://nottingham-repository.worktribe.com/output/708258/five-year-workplace-wellness-intervention-in-the-nhs-improves-health-behaviours>. Accessed March 30, 2023.
31. Dobie A, Tucker A, Ferrari M, et al. Preliminary evaluation of a brief mindfulness-based stress reduction intervention for mental health professionals. *Australas Psychiatry*. 2016;24(1):42–45. doi:10.1177/1039856215618524
32. American Hospital Association, Health Research & Educational Trust. Health and wellness programs for hospital employees: results from a 2015 American hospital association survey; 2016. Available from: <https://www.aha.org/aharet-guides/2016-10-12-health-and-wellness-programs-hospital-employees-results-2015-american>. Accessed March 30, 2023.
33. American Hospital Association. Fast Facts on U.S. Hospitals; 2022. Available from: <https://www.aha.org/statistics/fast-facts-us-hospitals>.
34. Boghossian S. Health system in Lebanon during the pandemic; 2020. Available from: <https://www.usj.edu.lb/news.php?id=9733#:~:text=The%20health%20system%20is%20highly,beds%20are%20within%20private%20hospitals>. Accessed March 30, 2023.
35. Fanack's The Chronicle of the Middle East and North Africa. The Health Sector in Palestine; 2016. Available from: <https://fanack.com/palestine/politics-of-palestine-the-health-sector-in-palestine/>. Accessed March 30, 2023.
36. Ali H, Ibrahim SZ, Al Mudaf B, et al. Baseline assessment of patient safety culture in public hospitals in Kuwait. *BMC Health Serv Res*. 2018;18(1):158. doi:10.1186/s12913-018-2960-x
37. Ministry of Health Sultanate of Oman. Hospitals in Oman; 2022. Available from: <https://www.moh.gov.om/en/referral-hospitals>. Accessed March 30, 2023.
38. Mekhail R. Healthcare resource guide: Egypt; 2017. Available from: https://2016.export.gov/industry/health/healthcareresourceguide/eg_main_108580.asp. Accessed March 30, 2023.
39. Buswell G. The healthcare system in Saudi Arabia; 2022. Available from: <https://www.expatica.com/sa/healthcare/healthcare-basics/healthcare-system-in-saudi-arabia-71162/>. Accessed March 30, 2023.
40. L'Hadj M. Services and hospital reform, Algeria; 2018. Available from: <https://pharmaboardroom.com/interviews/mohamed-lhadj-director-general-of-health-services-and-hospital-reform-algeria/>. Accessed March 30, 2023.
41. Statista. Number of public health facilities in Tunisia in 2019, by type; 2019. Available from: <https://www.statista.com/statistics/1194048/number-of-public-health-facilities-in-tunisia-by-type/>. Accessed March 30, 2023.
42. Agency for Healthcare Research and Quality. Toolkit for using the AHRQ quality indicators; Available from: https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/systems/hospital/qitoolkit/combined/fl_combo_returnoninvestment.pdf. Accessed March 30, 2023.
43. Ettorchi-Tardy A, Levif M, Michel P. Benchmarking: a method for continuous quality improvement in health. *Health Policy*. 2012;7(4):e101–19.
44. Guazzi M, Faggiano P, Mureddu GF, et al. Worksites health and wellness in the European Union. *Prog Cardiovasc Dis*. 2014;56(5):508–514. doi:10.1016/j.pcad.2013.11.003
45. Bell J. How Do U.S. corporate wellness programs compare with the rest of the world?; 2014. Available from: <https://info.totalwellnesshealth.com/blog/bid/355434/How-Do-U-S-Corporate-Wellness-Programs-Compare-with-the-Rest-of-the-World>. Accessed March 30, 2023.
46. Elyamani R, Naja S, Al-Dahshan A, et al. Mental health literacy in Arab states of the gulf cooperation council: a systematic review. *PLoS One*. 2021;16(1):e0245156. doi:10.1371/journal.pone.0245156
47. AbuAlRub RF, Al-Asmar AH. Physical violence in the workplace among Jordanian hospital nurses. *J Transcult Nurs*. 2011;22(2):157–165. doi:10.1177/1043659610395769
48. Oweis A, Mousa Diabat K. Jordanian nurses perception of physicians' verbal abuse: findings from a questionnaire survey. *Int J Nurs Stud*. 2005;42(8):881–888. doi:10.1016/j.ijnurstu.2004.11.005
49. Alameddine M, Kazzi A, El-Jardali F, et al. Occupational violence at Lebanese emergency departments: prevalence, characteristics and associated factors. *J Occup Health*. 2011;53(6):455–464. doi:10.1539/joh.11-0102-OA
50. Bray GA, Bellanger T. Epidemiology, trends, and morbidities of obesity and the metabolic syndrome. *Endocrine*. 2006;29(1):109–117. doi:10.1385/ENDO:29:1:109
51. Collaboration NRF. Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19·2 million participants. *Lancet*. 2016;387(10026):1377–1396. doi:10.1016/S0140-6736(16)30054-X
52. Adaja T, Idemudia O. Prevalence of overweight and obesity among health-care workers in university of Benin teaching hospital, Benin City, Nigeria. *Ann Trop Pathol*. 2018;9(2):150–154. doi:10.4103/atp.atp_30_18
53. Kyle RG, Wills J, Mahoney C, et al. Obesity prevalence among healthcare professionals in England: a cross-sectional study using the Health Survey for England. *BMJ Open*. 2017;7(12):e018498. doi:10.1136/bmjopen-2017-018498
54. Wadden TA, Tronieri JS, Butryn ML. Lifestyle modification approaches for the treatment of obesity in adults. *Am Psychol*. 2020;75(2):235. doi:10.1037/amp0000517
55. Song Z, Baicker K. Effect of a workplace wellness program on employee health and economic outcomes: a randomized clinical trial. *JAMA*. 2019;321(15):1491–1501. doi:10.1001/jama.2019.3307
56. Kaiser Family Foundation. 2020 Employer Health Benefits Survey. Kaiser Family Foundation; 2020.
57. Goodman MJ, Schorling JB, Mindfulness Course A. Decreases burnout and improves well-being among healthcare providers. *Int J Psychiatry Med*. 2012;43(2):119–128. doi:10.2190/PM.43.2.b

58. Panagioti M, Geraghty K, Johnson J, et al. Association between physician burnout and patient safety, professionalism, and patient satisfaction: a systematic review and meta-analysis. *JAMA Intern Med.* 2018;178(10):1317–1331. doi:10.1001/jamainternmed.2018.3713
59. Nilan K, McKeever TM, McNeill A, et al. Prevalence of tobacco use in healthcare workers: a systematic review and meta-analysis. *PLoS One.* 2019;14(7):e0220168. doi:10.1371/journal.pone.0220168
60. World Health Organization. The Role of health professionals in tobacco control. World Health Organization; 2005. Available from: http://www.who.int/tobacco/resources/publications/wntd/2005/bookletfinal_20april.pdf. Accessed March 30, 2023.
61. World Health Organization. Guidelines for implementation of Article 14 of the WHO framework convention on tobacco control; 2010. Available from: <http://www.who.int/fctc/Guidelines.pdf?ua=1>. Accessed March 30, 2023.
62. Mulder L, Belay B, Mukhtar Q, et al. Prevalence of workplace health practices and policies in hospitals: results from the workplace health in America study. *Am J Health Promot.* 2020;34(8):867–875. doi:10.1177/0890117120905232

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