

Assessment of Sleep Quality Among Doctors with On-Call Duties in Bahrain Defence Force Hospital

Maryam Adam Ali¹, Noora Adam Ali², Waiel Alani^{3*}

Background: Sleep quality is influenced adversely or favorably by various intrinsic and extrinsic factors and sleep deprivation is a common problem facing doctors.

Objectives: To assess the sleep quality and estimate the prevalence of excessive daytime sleepiness among physicians with on-call duties.

Methods: This cross-sectional seven-month study included a total of 62 doctors working at the Bahrain Defense Force Hospital (BDF) with on-call duties. Data were collected using the Pittsburgh Sleep Quality Index (PSQI) questionnaire and the Epworth sleepiness scale (ESS).

Results: The mean Global Score of PSQI in the analyzed sample was 8.34 (95% CI: 7.35 – 9.33). The prevalence rate of poor sleep quality (PSQI >5) was 77.4%. Logistic regression analysis showed that poor sleep quality was associated with female gender and doctors' ranks, as 54.2% of female doctors and 62.5 % of junior doctors reported poor sleep quality. No significant association was seen between number of calls per month and sleep quality. The mean of ESS scores among participants was 8.87 out of 24. No significant correlation was found between ESS scores and sociodemographic factors.

Conclusion: Sleep disturbance was mostly seen among female and junior resident doctors. More studies are warranted to highlight this issue.

Keywords: Doctors; Excessive daytime sleepiness; Mental health; On-call duties; Sleep

Table 3: Association with mean ESS score and different factors

	Number	Mean	Standard Deviation (SD)	P value
Age				
<30	27	9.74	4.94	0.100
30-39	24	9.33	3.92	
40-49	10	5.90	5.07	
>=50	1	4.00	.	
Gender				
Male	33	8.27	4.76	0.291
Female	29	9.55	4.65	
Specialty				
Anesthesia	1	7	.	0.067
Cardiology	7	11.14	4.49	
General surgery	14	10.79	4.54	
Medical	14	7.57	5.12	
Obstetrics and gynecology	5	7.2	4.97	
Orthopedics	7	4.71	3.73	
Pediatric	7	9.86	3.34	
Plastic	3	7	1	
Radiology	4	12.25	4.57	
Position				
Chief	8	6.50	4.00	0.159
Junior resident	37	9.73	4.37	
Senior resident	17	8.12	5.45	
Marital status				
Single	26	9.62	4.67	0.295
Married	36	8.33	4.74	
Have a child				
Yes	26	7.50	4.28	0.051
No	36	9.86	4.82	
Number of on-calls				
1-6	35	9.20	5.03	0.536
7-11	27	8.44	4.33	

*p value<0.05 considered as statistically significant.