

Poor Sleep Quality: “A Wake up call for the elderly at a tertiary care centre in Pakistan”

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Introduction

Nearly half of older adults’ report difficulty initiating and maintaining sleep. They are among the most common non-motor symptoms, with a prevalence of 60% to 90%. We planned this survey to assess the burden of sleep disorders in the elderly and the effects of various co-morbidities linked with them.

Methodology

This is a cross sectional survey conducted at two tertiary care centers employing non probability convenience sampling technique. Pittsburgh Sleep Quality Index (PSQI) and ESS sleepiness scale (ESS) were administered in 1000 elderly patients attending various outpatient departments.

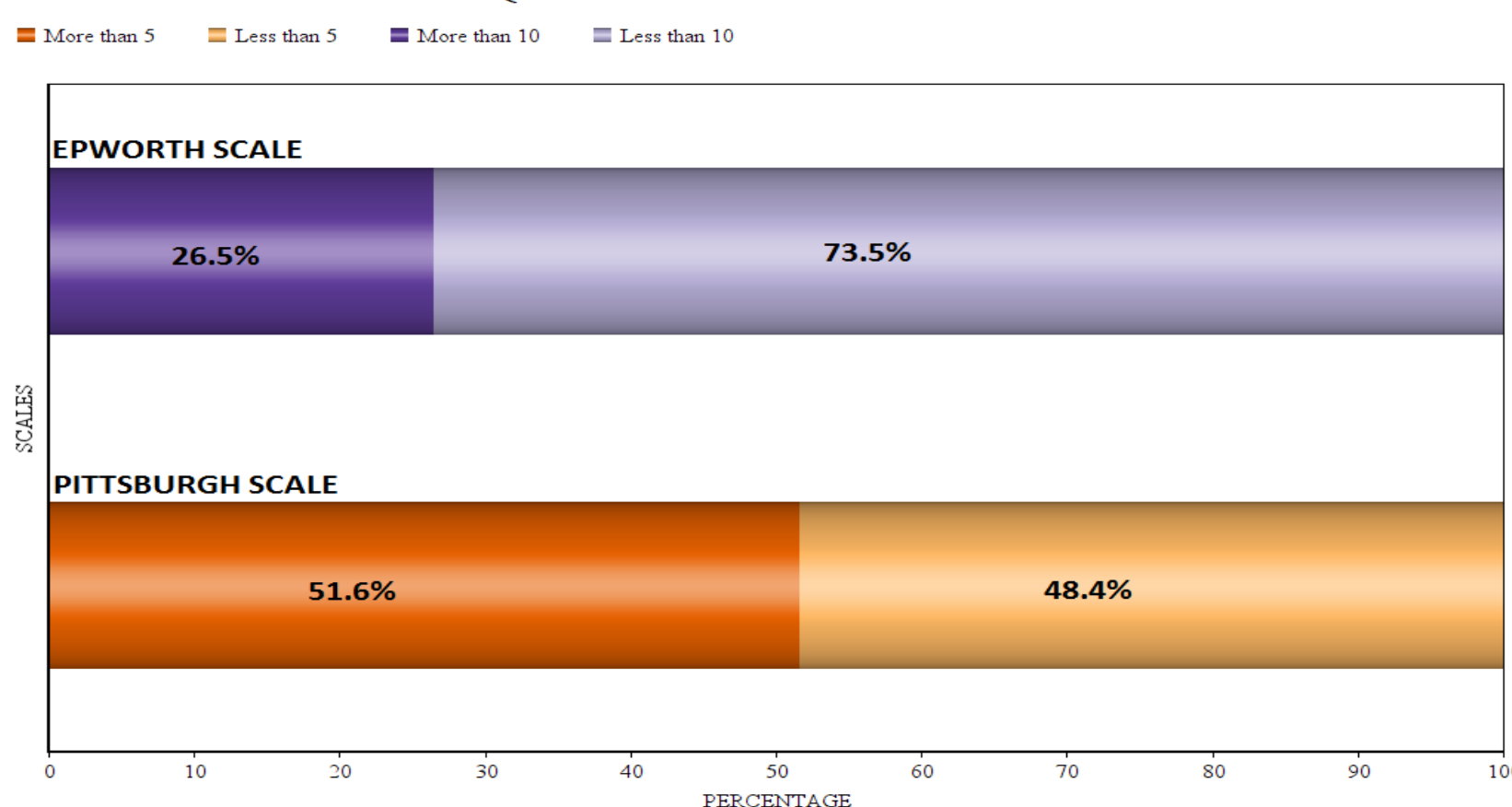
Statistics

Among the final models obtained through logistic regression, the first model for PSQI scores was significant while the other model for ESS scores was not.

“Sleep, those little slices of death — how I loathe them.” — Edgar Allan Poe

Variables	Male				Female				Total			
	Mean	SD ¹	Count	%age	Mean	SD	Count	%age	Mean	SD	Count	%age
Age	67	7			67	7			67	7		
ES ²	7	4			8	4			8	4		
GPSQ ³ Index	6	3			7	4			6	3		
Obesity	Yes		68	10.70%			78	21.70%			146	14.60%
	No		569	89.30%			282	78.30%			851	85.40%
Diabetes	Yes		207	32.40%			157	43.50%			364	36.40%
	No		431	67.60%			204	56.50%			635	63.60%
Hypertension	Yes		262	41.10%			177	49.00%			439	44.00%
	No		375	58.90%			184	51.00%			559	56.00%
Dyslipidemia	Yes		88	13.80%			72	19.90%			160	16.00%
	No		548	86.20%			290	80.10%			838	84.00%
CAD ⁴	Yes		108	17.00%			49	13.70%			157	15.80%
	No		528	83.00%			309	86.30%			837	84.20%

FREQUENCY OF SLEEP DISORDERS



Variables	B	Sig.	Odds
COPD	-2.37	0.026	0.093
Age	0.05	0.052	1.046
Arthritis	-0.63	0.101	0.534
CAD	0.47	0.221	1.594
Obesity	0.42	0.261	1.522
Renal	0.60	0.261	1.822
Stroke	-0.53	0.336	0.589
Sex (male)	-0.29	0.386	0.748
Education (years)	-0.01	0.498	0.986
Smoking	-0.28	0.558	0.754
Diabetes	-0.18	0.583	0.836
Dyslipidemia	0.17	0.693	1.183
Hypertension	0.09	0.777	1.089
Dementia	-0.17	0.842	0.841
Asthma	23.51	1.000	0.000
Psychiatric illness	0.38	1.000	1.462
Constant	20.53	1.000	0.000
Dependent variable:			
1= ESS score > 10			
0=ESS score <= 10			
Abbreviations:			
Sig: Level of statistical significance / P value			
B: Beta coefficient			

Variables	B	Sig.	Odds
Renal disease	1.361	0.040	3.90
COPD	-0.831	0.072	0.44
Dementia	1.398	0.099	4.05
Sex	-0.43	0.145	0.65
Obesity	0.517	0.152	1.68
CAD	0.484	0.203	1.62
Dyslipidemia	0.512	0.206	1.67
Smoking	-0.541	0.214	0.58
Education (years)	-0.019	0.266	0.98
Age	0.023	0.302	1.02
Hypertension	0.145	0.574	1.16
Arthritis	-0.155	0.601	0.86
Stroke	-0.142	0.744	0.87
Diabetes	-0.068	0.802	0.93
Asthma	-20.053	1	0.00
Psychiatric	-0.032	1	0.97
Constant	20.783	1	106
Dependent Variable:			
1= PSQI score > 5			
0=PSQI score <= 5			
Abbreviations:			
Sig.: Level of statistical significance / P value			
B: Beta coefficient			

Results

In our study, some of the statistically strong associations were observed for CAD, arthritis, renal disease on PSQI. ESS scores were found statistically significant among those with dementia, psychiatric illnesses and obesity. It was further observed that a PSQI score greater than 5 was associated with patients with renal disease, dementia and smokers.

Conclusion

We identified significant burden of sleep related disorders in the elderly which is an indicator for poor quality of life and poses long term sleep related complications if remain unattended.

Recommendation

We recommend using PSQI and ESS scales in an outpatient setting to identify and address sleep disturbances in order to elate the overall quality of life in elderly.