

Biopsychosocial Predictors of Sleep Quality in Retirement Home Residents

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INTRODUCTION

Sleep complaints, difficulties and problems in older adults are relatively high. They may be seen as primary or as a consequence of another physical or mental illness and medication use. Ageing is generally associated with difficulties in initiating and maintaining consolidated sleep. The sleep of older adults is fragmented, shorter and less restorative, and consequently, their wakefulness may be suboptimal.

Various psychosocial factors such as daily stressors, stressful life events, co-sleeping or social Zeitgebers are also important determinants of sleep in any age group. In older adults residing in an institution, these influences can be even more pronounced and can pose additional vulnerability risk for impaired sleep and daytime functioning.

The aim of this study was to examine the possible association of different biological, psychological and social factors and sleep quality of older adults residing in the institution.

METHOD

PARTICIPANTS

- 138 retirement home residents (78% females) in the City of Zagreb
- M = 84.3 years (SD = 6.29)
- Ambulatory, no diagnosis of dementia

MEASURES

- Self reported health - 2-items (Rakowski & Hickey, 1994)
- Functional Ability - ADL, 14-items (Despot Lučanin, 1997)
- Cognitive Ability – CAPE (Pattie & Gilleard, 1996)
- Stress – frequency and intensity of stressful life events during past year
- Social Support – 3 items - instrumental, emotional, socialising (Despot Lučanin et al., 2015)
- Social Participation - 5-items (Despot Lučanin, 1997)
- Life Satisfaction Scale - 8-items (Defilips & Havelka, 1984)
- Pittsburgh Sleep Quality Index (Buysse et al., 1989)

RESULTS

PITTSBURGH SLEEP QUALITY INDEX (PSQI)

	M (SD)	TR
Total PSQI	8.40 (4.17)	0-21
1 Subjective Sleep Quality	0.96 (0.78)	0-3
2 Sleep Latency	1.41 (1.06)	0-3
3 Sleep Duration	1.43 (1.22)	0-3
4 Sleep Efficiency	1.61 (1.30)	0-3
5 Sleep Disturbances	1.36 (0.56)	0-3
6 Use of Sleep Medication	1.46 (1.41)	0-3
7 Daytime Disturbances	0.34 (0.70)	0-3

CORRELATIONS BETWEEN VARIABLES

	Self-reported Health	Functional Ability	Cognitive Ability	Social Participation	Social Support	Stress	Total PSQI
Functional Ability	.51**	-	.33**	.18*	-	-	-.33**
Self-reported Health	-	.51**	-	-	-	-	-.21**
Cognitive Ability	-	.33**	-	.18*	-	.20*	-
Social participation	-	.18*	.18*	-	.18*	.20*	-
Social support	-	-	-	.19*	-	-	-
Stress	-	-	.20*	.20*	-	-	-
Total PSQI	.33**	-.21*	-	-	-	-	-
Life satisfaction	.43**	.32**	-	-	-	-	-.48**

PREDICTORS OF PSQI

	M (SD)	Range	TR	β	p
Gender	-	-	-	.132	.133
Age	84.3 (6.29)	68-100	-	-.028	.741
Self-reported Health	5.34 (1.34)	2-8	2-8	-.168	.094
Functional Ability	42.13 (9.47)	18-56	14-56	-.036	.724
Cognitive Ability	17.71 (2.67)	8-23	0-23	.000	.997
Social Participation	6.55 (2.18)	4-12	5-15	.039	.661
Social Support	6.74 (1.57)	3-9	3-9	-.047	.587
Stress	2.59 (2.54)	0-15	0-15	.018	.832
Life Satisfaction	19.87 (3.44)	10-24	8-24	-.391	.000

R = .528, R² = .278; F(9,112) = 4.8; p < .001



CONCLUSION

Total PSQI score was greater than 5 in over 71% of participants. Sleep efficacy was impaired the most, and the use of sleep medication was frequent. On the other hand, subjective sleep quality and daytime functioning were relatively high.

Regression analysis showed that the observed predictors significantly explained 27,8% of the sleep quality variance. Although functional ability, self-reported health and life satisfaction were all significantly negatively correlated to PSQI, the only significant individual predictor of sleep quality was life satisfaction.

The overall sleep quality of the retirement home residents in Zagreb was expectedly impaired, but not to extent that would pose a problem to their daytime functioning or life satisfaction. Overall life satisfaction was high and associated with better sleep quality. Our results implicate that the environment and services in the retirement homes may be protective factors for sleep and wellbeing of older adults.

