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Is Sleep Quality related to Psychological Distress in the Elderly?

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Is Sleep Quality related to Psychological Distress in the Elderly?

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Is Sleep Quality related to Psychological Distress in the Elderly?

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Is Sleep Quality related to Psychological Distress in the Elderly?

Introduction

Elderly patients often complain of 'poor sleep', but most seem to accept this phenomenon as part of natural ageing process.

What is **Sleep Quality**?

Widely studied but definition still debatable.

Sleep quality includes quantitative and subjective aspects of sleep:

1. Quantitative : sleep duration, time taken to fall asleep (sleep latency) and number of arousals
2. Subjective : based on individual own perception : 'restfulness' or 'depth' of sleep



Is Sleep Quality related to Psychological Distress in the Elderly?

Prevalence of Poor Sleep Quality in the Elderly

- **13% to 55%** of elderly worldwide complain of poor sleep quality
- Strong association between sleep problems and psychological factors such as depression, anxiety, worry & grief.
- Depression was found to be associated with poor sleep quality.



Sleep Pattern in Elderly

How much sleep do older adults need?

- Most adults need **7 or 8 hours** of sleep each night to feel fully alert during the day. This is usually also true for people aged 65 or older.
- But as we get older, we might have more trouble sleeping. Many things can get in the way of sleeping well or sleeping long enough to be fully rested.



Sleep Pattern in Elderly

Why is 'a good night sleep' important?

- It directly affects the quality of your waking life, including your mental sharpness, energy, physical vitality, productivity, creativity and even body weight.
- It affects mood (irritable), emotional balance and ability to handle stress.



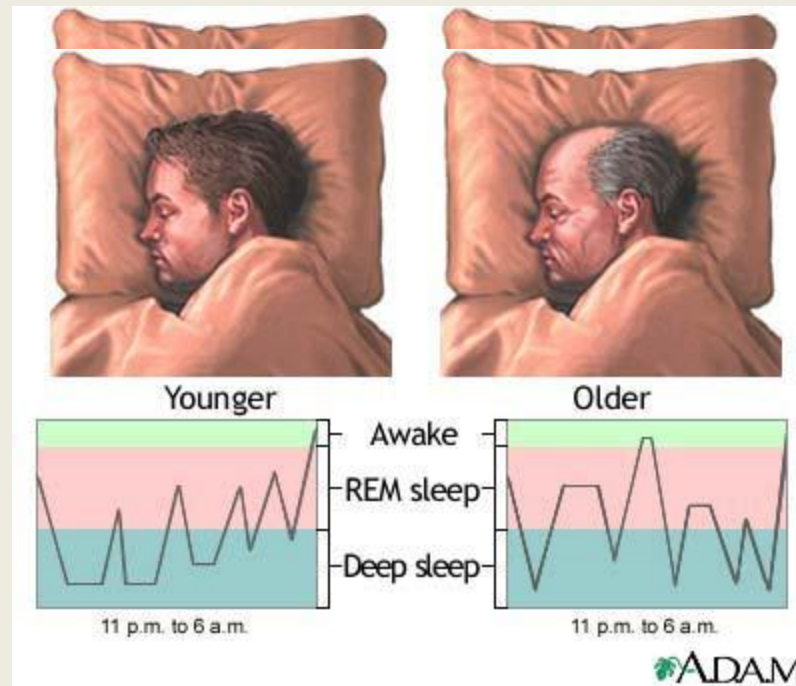
Sleep Pattern in Elderly

What sleep changes are common in older adults?

- Older adults might get sleepy earlier in the evening.
- Older adults may have insomnia, which makes it hard to fall asleep when they go to bed or stay asleep all night. They might wake up very early in the morning and not be able to go back to sleep.



Sleep Pattern in Elderly



The older adults tend to have longer REM sleep (more dreams), more waking up and less deep sleep than younger adults.

Sleep Pattern in Elderly

What causes sleep problems?

- In the elderly, **sleep-wake cycle** may not seem to work as well as it did when he or she was younger. There is less production of chemicals and hormones that regulate sleep (growth hormone and melatonin).
- Some **lifestyle habits** (such as smoking and drinking alcohol) can cause sleep problems.
- Sleep problems may be caused by medical or psychiatric **illness**, by **pain** that keeps a person from sleeping or by **medications** that keep a person awake.



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OBJECTIVES:

1. To determine prevalence of poor sleep quality among elderly
 2. To determine the association between sleep quality and psychological distress among the elderly
- To determine the distribution of sleep quality based on PSQI components (i.e. subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of hypnotic agent and daytime dysfunction).
 - To determine the prevalence of sleep quality based on global PSQI score among patient.

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METHODS:

Samples : selected by convenient sampling method

Inclusion criteria

- Patient aged 60 years old and above attended PPPUKM during study period.
- Patient consented to be involved in the study.
- Intact cognition i.e. ECAQ score of 5 or more

Exclusion criteria.

- Patients who had hearing impairment.
- Patients or their carers who were unable to read or understand English and/ or Malay language.
- Patients who were diagnosed as dementia or cognitive impairment i.e. ECAQ score of less than 5.

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INSTRUMENTS

1. Socio-demographic data questionnaire

2. Pittsburgh Sleep Quality Index (PSQI)

- self-rated questionnaire
- assesses sleep quality and disturbances over a **1-month** time interval
- Consists of 19 items grouped into seven components:
 - 1) **Subjective Sleep Quality**; 2) **Sleep Latency**; 3) **Sleep Duration**; 4) **Habitual Sleep Efficiency**; 5) **Sleep Disturbances**; 6) **Use of hypnotic agent**; and 7) **Daytime Dysfunction**.
- Each component is graded from 0 (no difficulty) to 3 (severe difficulty).
- These 7 component scores are summed up to produce **Global PSQI scores** (range between 0 to 21).
- **Poor sleep quality is defined as scores greater than 5**



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3. Hospital Anxiety and Depression Scale (HADS)

- To screen for significant depression and anxiety (psychological distress).
- A score of 8 or more was considered significant case of anxiety and depression

4. Elderly Cognitive Assessment Questionnaire (ECAQ)

- A screening tool for dementia
- Score of 5 or less is suggestive of dementia

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RESULTS

Table 1. Sociodemographic characteristics of the study subjects

Variables	N(123)	(%)
<i>Gender</i>		
Male	56	45.5
Female	67	54.5
<i>Ethnic</i>		
Malay	45	36.6
Chinese	72	58.5
Indian	6	4.9
<i>Household members:</i>		
Spouse & children± relatives	61	49.6
No spouse & children	31	25.2
Spouse	20	16.3
No spouse & relatives/friend	7	5.7
Alone	4	3.2

Sociodemographic characteristics of the study subjects (Cont..)

Co-morbid medical conditions

	N=123	(%)
Hypertension	106	86.2
Arthritis	62	50.4
Dyslipidaemia	62	50.4
Diabetes Mellitus	46	37.4
Heart Disease	26	21.1
Urinary problem	25	20.3
Thyrotoxicosis	7	5.7
Psychological	5	4.1
Others	31	25.2

Table 2. Distribution of Psychotropic Agents

Usage of psychotropic agent	N	%
Unknown hypnotic	2	1.6
Non-benzodiazepine	2	1.6
Antidepressant	3	2.4
Antidepressant & hypnotic	1	0.8
No psychotropic agent	115	93.6

Table 3. Distribution of Psychological Distress (N=123)

	No	Yes
	n (%)	n (%)
Psychological distress	94(76.4)	29(23.6)

Association between Sleep Quality and Level of Psychological Distress

Variables	Good sleep quality	Poor sleep quality	N=123, n(%)	χ^2	P value	OR	95%CI
No psychological distress	55(58.5)	39(41.5)	94(100)	5.32	0.02	2.68	1.12,6.39
Psychological distress	10(34.5)	19(65.5)	29(100)				

Association between Sleep Quality and Socio-Demographic Data

Variables	Good sleep quality	Poor sleep quality	n	t value	p value
Mean age	68.9±5.94	69.5±4.55		0.62	<0.05
Age group					
Younger group	35(55.6)	28(44.4)	63	0.38	0.54
Older group	30(50)	30(50)	60		
Gender					
Male	34(60.7)	22(39.3)	56	$\chi^2=2.55$	0.11
Female	31(46.3)	36(53.7)	67		
Ethnicity					
Malay	23(51.1)	22(48.9)	45	$\chi^2=0.12$	0.94
Chinese	39(54.2)	33(45.8)	72		
Indian	3(50.0)	3(50.0)	6		
Number of Household members					
Spouse	10(50)	10(50)	20	$\chi^2=3.33$	0.50
Spouse & Children	37(60.7)	24(39.3)	61		
No spouse with Children	13(41.9)	18(58.1)	31		
No spouse with relatives/ friends	3(42.9)	4(57.1)	7		
Alone	2(50)	2(50)	4		

Analysis of PSQI:

- Most patients reported “fairly good” sleep quality (69%), had “mild difficulty” (38.2%) with sleep latency, sleep for 6-7 hours (43%) but spent 1.5 hrs lying in bed before actually sleeping.
- Most patients complained of “mild difficulty” in terms of sleep disturbance (88%).

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Conclusion

1. Poor sleep quality is more among the older subjects.
2. Prevalence of poor sleep quality among elderly in PPPUKM is high (47.2%).
3. Nearly ½ of elderly who reported good subjective sleep were actually poor sleepers (based on PSQI scores).
4. Most patients complained of “mild difficulty” in terms of sleep disturbance.
5. Psychological distress occurred in almost a quarter (23.6%) of elderly.
6. There was significant association between poor sleep quality and psychological distress (p=0.02) and heart disease (p=0.04).
7. The use of psychotropic agents is low (6.4%).

THANK YOU
...for not sleeping

