

Sleep Problems in Out-Patient of Primary Care Unit

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Objective: The prevalence and factors associated with sleep problems among out-patients of the Family Medicine Department in Ramathibodi Hospital were evaluated and their management was assessed.

Material and Method: Descriptive study, out-patients in family medicine clinic (n = 512) were selected by stratified random sampling. Sleep problems during the previous month were assessed by using questionnaires. Excessive daytime sleepiness (EDS) was assessed by Epworth sleepiness scale. The medical records of 45 patients with habitual insomnia during the previous 6 months were retrieved to study its management. The data were analyzed by Chi-square, Odds ratio, 95% Confident Interval and binary logistic regression.

Results: Half of the subjects (50.4%) had chronic diseases. Age range was 20-78 years old and 69.9% were female. Insomnia distributed almost equally in all age groups. Approximately 57.9% and 19.5% of the subjects reported insomnia and sleepiness. One fourth of the participants (24.7%) had snored and this was more often in men than women (OR 1.7). Anxiety score, female, and perception of their illness and disease were strong factors associated with insomnia. Most of them (71.1%) did not consult their doctors despite having habitual insomnia. From medical records reviewed, only one fourth of them (28.9% and 26.7%) were recorded about the insomnia and the prescriptions.

Conclusion: More than half of the out-patients in primary care had sleep problems, especially insomnia, and excessive daytime sleepiness, but few of them consulted their doctors. This problem should not be overlooked. Psychological problems and anxiety with their illness were associated with insomnia. Therefore, exploring and understanding their problems are important issues to manage and render advice for their quality sleep.

Keywords: Outpatients, Primary health care, Sleep initiation and maintenance disorders

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Sleep problems are common in some patients in the general population. This prevalence is 10-69% in USA⁽¹⁻⁵⁾. Most of them are elderly and the patients with chronic illness⁽⁶⁾ including anxiety and depression^(4,7,8). It has been reported that 70% of the patients do not consult their doctors about their sleep problem and only 6% seek treatment⁽⁶⁾. Sleep problem impacts on health and illness. It is also a sign of bio-psychosocial problems. If it is managed earlier, psychiatric problem could be prevented. However, most of the patients do not recognize the sleep problem, and they are managed inappropriately. General practitioners, family physicians, and internal

physicians (62%) are usually consulted by the patients with sleep problem. Thus, primary care doctors have an important role in screening, diagnosis, and management of sleep problems⁽⁶⁾.

In the Thai population, there are few relevant studies. A recent study has revealed that the prevalence of sleep problem is 46%. Female have the problem more than males⁽⁷⁾. Therefore, the objective of the present study was to explore the prevalence and management of sleep problems in out-patients, their characteristics, and the various factors associated with insomnia.

Material and Method

In the present descriptive study, 512 out-patients in the Family Medicine Department at Ramathibodi Hospital were selected by stratified

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random sampling. The prevalence of sleep problems in the previous month was assessed by questionnaires with Likert's scale. Sleep problems in the present study were insomnia, snoring, periodic limb movement disorder, restless legs syndrome, and excessive daytime sleepiness (EDS). Insomnia was defined in terms of difficulty initiating sleep or difficult maintaining sleep or early morning awakening. Periodic limb movement disorder and restless legs syndrome were evaluated from the questionnaire, whereas excessive daytime sleepiness was assessed by Epworth sleepiness scale having more than 9 points. Its reliability of sleep problems and Epworth sleepiness scale were found to be 0.71 and 0.73 (Cronbach's alpha coefficient). Management during the previous 6 months in medical records was retrieved from 45 subjects who had habitual insomnia. The data was analyzed by Chi-square, Odds ratio, 95% Confident Interval, and binary logistic regression.

Results

Most of the samples were female (69.9%). Chronic disease such as hypertension, diabetes mellitus, dyslipidemia, heart disease, and headache was found in 50.4% of the sample. Age distribution of less than 40 years, 40-49, 50-59, and more than 59 years old were 29.1%, 24.6%, 22.3%, and 24.0% respectively. Insomnia was found in females (296 of 512; 57.8%) more than males (OR = 1.833).

They had difficulty initiating sleep (35.5%), difficult maintaining sleep (40.6%), and early morning awakening (34.6%). Some of them snored (24.6%), which was more in males than females (OR = 1.795).

Moreover, restless legs syndrome (20.1%), periodic limb movement disorder (9.6%), and daytime sleepiness (19.5%) are shown in Table 1.

Chi-square test, female, anxiety, depression, number of diseases (3 problems and more), working time, and poor health perception were associated with insomnia significantly (p -value < 0.05). After adjusting other factors by binary logistic regression analysis revealed that anxiety, female, and poor health perception associated with insomnia significantly (p < 0.01). Insomnia was predicted about 65.1% as shown in Table 2.

From 45 medical records of patients who reported having habitual insomnia, most of the history, diagnosis, or treatment (71.11%) were not recorded. However, headache and dizziness (17.78%), mentally tired (8.89%), weakness (6.67%), and stress (4.44%) were recorded. Among these, psychotropic drugs were prescribed (26.6%).

Discussion

Previous studies in Germany⁽⁹⁾, Spain⁽¹⁰⁾ and Los Angeles⁽²⁾ have indicated that the prevalence of insomnia is 20-57%. They have suffered for more than 1-5 years⁽⁹⁾. Prevalence of long-term insomnia in Japan was 11.7% and was mainly due to difficulty initiating sleep (82.4%), difficult maintaining sleep (86.7%), and early morning awakening (72.4%)⁽⁸⁾. One third of the patients were diagnosed as primary or non-organic insomnia by the general practitioners⁽¹¹⁾. Old age and females were predictors for insomnia⁽⁸⁾. In the present study, more than half of the patients who had insomnia were females. They also had excessive

Table 1. Frequencies of sleep problems

Sleep problems	Total		% of problems		p-value	OR	95% CI
	No.	%	Female	Male			
Insomnia						f/m	
Yes	296	57.8	43.6	14.3	0.001*	1.833	1.251-2.685
Snore						m/f	
Yes	126	24.6	9.8	14.9	0.005*	1.795	1.177-2.738
Periodic limb movement disorder PLMD						f/m	
Yes	49	9.6	7.7	1.9	0.079	1.761	0.855-3.624
Restless legs syndrome RLS						f/m	
Yes	103	20.1	15.3	4.9	0.090	1.443	0.878-2.370
Excessive daytime sleepiness						f/m	
Yes (EDS \geq 10)	100	19.5	55.9	24.6	0.354	1.133	0.698-1.839

f = female, m = male, * p < 0.05

Table 2. Association of insomnia with socio-demographic and psychological factors

Variables	Insomnia			Crude		Adjusted	
	Total	No.	%	OR	95% CI of OR	OR	95% CI of OR
Sex							
Male	154	73	47.4	1.000	1.000	1.000	1.000
Female	358	223	62.3	1.833*	1.251-2.685	2.038*	1.289-3.223
Anxiety*							
No	428	225	52.6	1.000	1.000	1.000	1.000
Yes	84	71	84.5	4.928*	2.648-9.169	3.268*	1.594-6.702
Health perception							
Good	375	197	52.5	1.000	1.000	1.000	1.000
Poor	132	96	72.7	2.409*	1.562-3.716	1.411*	1.087-1.831
Depression							
No	448	246	54.9	1.000	1.000	1.000	1.000
Yes	64	50	78.1	2.933*	1.576-5.458	1.266	0.597-2.681
Age							
15-29	74	38	51.4	1.000		1.000	1.000
30-39	75	47	62.7	1.590	0.827-3.056	0.709	0.350-1.437
40-49	126	73	57.9	1.305	0.733-2.324	0.883	0.467-1.668
50-59	114	67	58.8	1.351	0.749-2.434	0.844	0.434-1.642
60+	123	71	57.7	1.294	0.725-2.309	0.824	0.390-1.741
Working time							
No work	198	124	62.6	1.000	1.000	1.000	1.000
Shift work	48	29	60.4	0.911	0.477-1.738	1.069	0.491-2.326
Day time	262	140	53.4	0.685*	0.470-0.998	1.353	0.830-2.208
Number of diseases							
0	95	44	46.3	1.000	1.000	1.000	1.000
1-2	318	181	56.9	1.531	0.966-2.427	0.766	0.462-1.270
3+	99	71	71.7	2.939*	1.621-5.328	0.570	0.288-1.130
Alcohol consumption							
No	399	226	56.6	1.000	1.000	1.000	1.000
Yes	113	70	61.9	1.246	0.812-1.912	1.071	1.001-1.146
Smoking							
No	460	264	57.4	1.000	1.000	1.000	1.000
Yes	52	32	61.5	1.188	0.659-2.140	1.212	0.597-2.463
Exercise (> 2 time/week)							
No	298	170	57.0	1.000	1.000	1.000	1.000
Yes	214	126	58.9	1.078	0.755-1.539	0.796	0.526-1.205

OR = odds ratio, CI = confidence interval, * $p < 0.05$; predicted value 65.1%

daytime sleepiness and snore (19.5% and 24.6%). Males snored more than females. Most of them did not know that snoring could be treated. Restless leg syndrome and periodic limb movement disorder were also found in about 20% and 10%, respectively. Though they suffered with sleep problems, it had been overlooked. Therefore, insomnia, snoring, excessive daytime sleepiness, and restless leg syndrome are common sleep problems that should be managed, especially in the primary care unit.

Some reports have indicated that physical and psychosocial problems are related to insomnia^(2,6,12,13). Most of the patients with chronic illness have insomnia⁽¹⁴⁾, especially individuals with anxiety or depression^(2,7-9,12-16). Poor illness perception and ageing are also associated with insomnia^(12,16). Individuals with shift-work have sleep problems more than daytime workers⁽¹⁷⁾. The present study has shown that females, anxiety, and poor illness perception were factors significantly associated with insomnia.

Anxiety and insomnia can reinforce each other, with insomnia causing increased anxiety. As anxiety increases, brain becomes more active, making it even more difficult to sleep⁽¹⁸⁾. Most of them had chronic diseases and consequently had poor illness perception and more anxiety. Besides, people who have a chronic illness such as pain and fatigue have a poor illness perception. This has a large impact on their daily lives, including sleep⁽¹⁹⁾. Hence, this problem should be appropriately managed. If it is managed early, psychiatric problems can be prevented⁽¹³⁾. Anxiety and poor illness perception should not be overlooked. Insomnia may give a signal to anxiety with their illness perception. Therefore, both physical and psychosocial problems should be explored to understand their problems and to provide quality sleep. While this finding revealed that depression and shift-work were not significantly associated, it may be because few patients had depression or shift-work (12.5% and 9.4%). Therefore, these issues should be studied later in larger sample groups.

One report indicated that most patients with insomnia had not been managed appropriately. Consequently inappropriate psychiatric drugs were used⁽²⁰⁾. Most primary doctors do not regard the severe insomnia problem in geriatric patients⁽⁹⁾. Medical records of insomnia patients were not recorded in the diagnosis (47%)⁽²⁰⁾. Out-patients in Japan (11.7%) had insomnia longer than 1 month and 37.6% received hypnotic and anxiolytic drugs⁽⁸⁾. Psychotropic drugs such as benzodiazepines and antidepressants were also prescribed⁽¹⁴⁾. More than half of the geriatric patients with severe insomnia received benzodiazepines regularly⁽⁹⁾. In the present study, medical records of habitual insomnia were reviewed and it was found that most of the history, diagnosis, and treatment (71.11%) were not recorded. Only 26.67% were prescribed on psychotropic drugs such as alprazolam, amitriptyline, lorazepam, nortriptyline, alprazolam, or tenazepam. Some patients did not want hypnotic drugs because of the risks of accident due to decreased vigilance performance or sleepiness, consequently, they did not discuss this problem with their doctors. Therefore, prescribing those drugs must be done cautiously among work-age patients.

It is regrettable that insomnia was ignored and managed inappropriately, although it was observed easily and indicated as a signal of bio-psychosocial problems. Besides, it can impact on the patient's lifestyle and work. When patients complain about difficulty initiating sleep, difficulty maintaining sleep,

or early morning awakening, they should be evaluated to understand their life to give appropriate management and quality sleep suggestion. Psychiatric problems will be prevented if insomnia is managed early

Conclusion

More than half of the out-patients in primary care had sleep problems, especially insomnia, snore, restless legs syndrome, periodic limb movement disorders, and daytime sleepiness but few of them consulted their doctors. To manage appropriately, exploring and understanding the causes of their sleep problems and their illness should not be overlooked.

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ปัญหาการนอนหลับของผู้ป่วยนอกที่หน่วยตรวจโรคปฐภูมิ

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วัตถุประสงค์: เพื่อศึกษาความชุกและปัจจัยที่มีความสัมพันธ์กับปัญหาการนอนหลับของผู้ป่วยนอกที่มาใช้บริการที่หน่วยตรวจโรคภาควิชาเวชศาสตร์ครอบครัว โรงพยาบาลรามารินทร์ และประเมินการดูแลที่ผู้ป่วยได้รับ

วัสดุและวิธีการ: เป็นการศึกษาแบบพรรณนาในผู้ป่วยนอกที่มีอายุ 20-78 ปี ภาควิชาเวชศาสตร์ครอบครัวจำนวน 512 ราย ที่สุ่มเลือกแบบ stratified random sampling กลุ่มตัวอย่างทุกรายจะได้รับการประเมินปัญหาการนอนหลับในช่วง 1 เดือนที่ผ่านมาด้วยแบบสอบถามและประเมินอาการง่วงนอนในเวลากลางวันด้วยแบบประเมิน Epworth sleepiness scale รวมทั้งประเมินการดูแลรักษาด้วยการทบทวนเวชระเบียนของผู้ป่วยที่มีปัญหาการนอนไม่หลับเป็นประจำจำนวน 45 ราย การวิเคราะห์ด้วยค่าสถิติร้อยละ โคสแคร์ และ binary logistic regression เพื่อหาปัจจัยที่มีความสัมพันธ์กับการนอนไม่หลับของผู้ป่วย

ผลการศึกษา: พบผู้ป่วยมีปัญหานอนไม่หลับและมีอาการง่วงนอนในเวลากลางวันร้อยละ 57.9 และ 19.5 ตามลำดับ ร้อยละ 24.7 ของกลุ่มตัวอย่างมีอาการนอนกรน ซึ่งพบในชายมากกว่าหญิง (OR = 1.7) และพบว่าความวิตกกังวล เพศหญิง และความคิดว่าสุขภาพของตนเองไม่ดี เป็นปัจจัยที่มีความสัมพันธ์กับ ปัญหานอนไม่หลับอย่างมีนัยสำคัญทางสถิติ ($p < 0.05$) ผู้ป่วยส่วนใหญ่ (ร้อยละ 71.1) ไม่ปรึกษาแพทย์ทั้ง ๆ ที่มีอาการประจำ จากการทบทวนเวชระเบียนของผู้ป่วยที่มีปัญหานอนไม่หลับเป็นประจำและบ่อย ๆ พบว่ามีเพียงร้อยละ 28.9 ที่มีการบันทึกปัญหานอนไม่หลับในเวชระเบียนและได้รับยาที่ช่วยให้หลับร้อยละ 26.7

สรุป: ผู้ป่วยนอกมากกว่าครึ่งมีปัญหานอนไม่หลับและง่วงนอนในเวลากลางวัน แต่มีผู้ป่วยจำนวนน้อยที่ได้รับการดูแล ดังนั้นปัญหานี้จึงไม่ควรมองข้ามไป ปัญหาทางจิตใจ ความวิตกกังวลจากความเจ็บป่วยและความคิดว่าตนเองมีสุขภาพไม่ดีเป็นปัจจัยที่มีความสัมพันธ์กับการนอนไม่หลับ ฉะนั้นจึงควรให้การดูแลและทำความเข้าใจปัญหาทางจิตใจ ความวิตกกังวลและทัศนคติต่อความเจ็บป่วยของผู้ป่วยรวมทั้งการให้คำแนะนำเกี่ยวกับคุณภาพการนอนหลับเป็นวิธีหนึ่งที่จะช่วยให้ผู้ป่วยสามารถจัดการปัญหานี้ได้อย่างเหมาะสม
