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Sleep Status of People in Nursing Home and Related Factors

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Abstract

Background: Sleeping problems in the elderly are an important health problem in the growing elderly population and an important public health problem that needs to be solved in order to improve the quality of life and improve health conditions.

Aim: Investigation of sleep status and related factors in the elderly residing in nursing homes.

Methodology: In this cross-sectional study, 124 elderly individuals were taken. The research data were collected using an introductory information form. Number, percentage distributions, mean, standard deviation, t test and one-way variance analysis were used in the analysis of the data.

Results: 50.8% of the elderly participated in the survey, 44.4% are in the 71 to 80 age group, 30.6% are not illiterate, 81.5% have at least one chronic illness, of the patients are hypertension. It was determined that 58.1% of the elderly individuals had a sleeping problem, 60.5% slept for 1 to 5 hours a day, 65.3% slept during daytime and 63.7% did not feel rested after waking up.

Conclusions: The vast majority of elderly people living in nursing homes are experiencing sleep problems. It is important for elderly people to be educated and counseled in order to solve the sleeping problem and for the elderly people to be aware of the behaviors that may cause sleeping problems to prevent/reduce the sleeping problem.

Keywords: Old age; Sleep; Nursing home

Introduction

Sleeping problems in the elderly are an important health problem in the growing elderly population and an important public health problem that needs to be solved in order to improve the quality of life and improve health conditions.

Senile; It is a period when physical and mental problems arise. Sleep, which is important for life together with loss of function that occurs in all organs and systems, is also affected by the aging process [1]. When sleep disorder is not treated; Daytime drowsiness, fatigue, irritability, increased pain sensitivity, muscle tremors, decreased mental function, anxiety, depression, general health and functional impairment. This may lead to decreased quality of life and increased mortality in elderly individuals [2].

It has been reported that 30% to 60% of the prevalence of sleep disorders is in studies conducted [3,4]. It is not known whether the sleep disturbances seen in the elderly are due to individual differences or aging process. Epidemiological studies indicate that sleep disturbances increase with age and that elderly individuals living in institutions have more sleep disturbances than older elderly people, up to 65% [5-7].

An important point of the insomnia problem in the elderly population is the changes in lifestyle. Reduced physical activity leads to homeostatic factors not being sufficient, at least the basic element for sleep. Evaluation of the elderly person in terms of sleep and the identification of interchangeable risk factors is the most basic approach in preventing sleep problems. Having the opportunity to observe the elderly individual and the environment they live in, the health care provider has the opportunity to recognize the risks that may cause the sleeping problem in the elderly and to take the necessary precautions. One of the most important protective measures for the sleep problem is to determine the physiological changes that occur due to age and cause insomnia and take the necessary precautions.

In this context, the health care workers assessing elderly individuals, especially the elderly person's mobility and avoidance from behaviors that may cause insomnia, will be able to identify current and potential risks and take necessary precautions to provide training and counseling for them.

Methods

The data of this cross-sectional study were obtained from aged residents living in a public nursing home in Ankara City Center between March-June 2015. A total of 220 elderly individuals are living in the nursing home and all of the 124 elderly individuals who are dependent on the bed, demented persons (the institutional health records and the doctors of the institution are taken into consideration) and/the sample was not selected. In order to be able to work, permission was obtained from elderly individuals by informing the institution from which the research was conducted and the purpose of the work. The research data were collected by face-to-face interviewing with the participants taking volunteer-based considerations into account. The research data consist of 28 questions developed by the

researchers; Data collection form that questions the demographic information, health status, social activity and social relations of elderly individuals.

Statistical package for social sciences (SPSS) 20.0 software was used for statistical analyses. Descriptive statistics, t-test were used in the analysis of the data. Statistical significance was accepted as $p<0.05$.

Inclusion criteria: in this study were included the elderly communicable individuals without neurological disorders, dementia, and bed dependent.

Exclusion criteria: The elderly individuals who have neurological disorders, dementia, bed dependent, and noncommunicable were not included in the study.

Characteristics	n	%
Chronic Disease		
Yes	101	81.5
No	23	18.5
Constantly drug used (n=116) *		
Yes	99	85.3
No	17	14.7
Number of drugs used (n=116) *		
Never	17	14.7
1	5	4.3
2	10	8.6
3	11	9.5
4	7	6
5	13	11.2
6 and more	53	45.7
Physical Health Perception (n=122)*		
Good	76	62.3
Moderate	34	27.9
Bad	12	9.8
Mental Health Perception (n=122) *		
Good	77	62.6
Moderate	34	27.6
Bad	13	9.8
Life satisfaction (n=121) *		
Satisfied	64	52.9
Not satisfied	57	47.1
Regular physical activity		
No	93	75
Yes	31	25
*Evaluation was made on individuals which is stating health perceptions, life satisfaction and number of drugs		

Table 1: Distribution of some characteristics related to health status the elderly (n=124).

62.3% of the elderly are physical and 62.6% of them have good mental health. A little more than half of the elderly (52.9%) expressed satisfaction with their life, and 75% stated that they usually did not perform regular physical regular activities during the day (Table 1).

It was found that 60.5% of the elderly individuals who participated in the study did sleep 1 to 5 hours, 65.3% were not sleeping during daytime, 62.1% had difficulty sleeping, 58.1% had sleep problems, 63.7% she said she did not feel rested after she woke up (Table 2).

Results

50.8% of the elderly individuals participating in the survey are women, 44.4% are in the 71 to 80 age group and 30.6% are not literate. Elderly people stated that 63.7% had a pension, and 70.2% said they had social security.

81.5% of the elderly participating in the survey had at least one chronic illness. 85.3% of the elderly are taking medication, and 45.7% of drug users use 6 or more drugs (Table 1).

Characteristics	n	%
Sleep duration		
1-5 hour	75	60.5
6-12 hour	49	39.5
Daytime sleepiness		
Yes	43	34.7
No	81	65.3
Sleeping difficulty		
Yes	77	62.1
No	47	37.9
Sleep problems		
Yes	72	58.1
No	52	41.9
Feeling rested after being awake		
Yes	45	36.3
No	79	63.7
Total	**124**	**100**

Table 2: Distribution of sleep patterns of elderly individuals (n=124).

It was found that 65.3% were not sleeping during daytime, 62.1% had difficulty sleeping, 58.1% had sleep problems, 63.7% She said she did not feel rested after she woke up (Figure 1).

A statistically significant difference was found between the average scores of sleep characteristics according to life satisfaction of elderly people living in nursing homes ($p<0.05$) (Table 3).

Discussion

Sleeping problems in the elderly can be caused by age-related problems and the physical characteristics of the living environment.

Elderly living with sleep problems for any reason; Social isolation and depression. 50.8% of the elderly participated in the study, 44.4% in the age group of 71-80, when their socio demographic characteristics are examined; It is expected that the education level of the elderly will be low if the average age of the elderly is (77 ± 8.2), 30.6% is not literate, and the value determined by the average age of the elderly (77 ± 8.2).

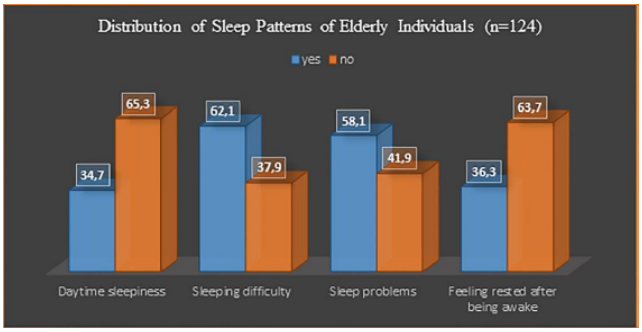

Figure 1: Distribution of sleep patterns of elderly individuals (n=124).

The elderly people stated that 63.7% of them passed their pension, 70.2% said they had social security. The continuing lives of the elderly individuals, who are increasing day by day in our country and our country, and their increasing social and economic standards depend on serious monetary costs. The vast majority of the elderly has any health insurance; Depending on their working life, they may be included in a social security institution and in any case, such a situation can be considered as a great opportunity in terms of elderly health services and free medication. 81.5% of the elderly people are chronic diseases, 85.3% of them use continuous medication and 45.7% of them use 6 or more medicines.

As a result of Tokem's work; 5.3% of the elderly were treated with one drug, 21.1% with two drugs, 26.3% with three drugs and 10.5% with five drugs [8]. As a result of his work in Arslan's nursing home [9]; 16% of them used 1 to 2 drugs, 16.7% used 3 drugs, 16.7% used 4 drugs and 16.7% used 5 drugs. 62.3% of the elderly are physical and 62.6% of them have good mental health. A little more than half of the elderly (52.9%) expressed satisfaction with their life (Table 1). According to this finding, it is noticed that the majority of the elderly qualifies the health level as good and moderate. In a study conducted by Koç et al. 46.2% of the elderly stated that they perceive their health as good and 6.4% perceive it as bad [10]. In a study conducted by Bayik et al. in a health center area in Izmir in 2004, 42.5% of the 167-year-olds considered their health very good and good [11].

In many studies conducted in our country, the health perception of the elderly is evaluated and as the age progresses, the perception of health by the effects of age-related physiological changes is perceived worse by the elderly. Having any social security of the elderly and having a good income situation affects the perception of health positively and therefore it is important to be able to initiate health related behavior change in the elderly and to make this change into a lifestyle.

Characteristics					
	n	**Daytime sleepiness**	**Sleeping difficulty**	**Sleep problems**	**Feeling rested after being awake**
Gender					
Male	61	1.59 ± 0.49	1.61 ± 0.49	1.36 ± 0.48	1.38 ± 0.49
Female	63	1.71 ± 0.45	1.57 ± 0.50	1.47 ± 0.50	1.34 ± 0.48
t-test	t=-1.452		t=0.394	t=-1.302	t=0.320
p value	p=0.149		p=0.694	p=0.195	p=0.750
Life satisfaction					
Satisfied	64	1.60 ± 0.49	1.47 ± 0.50	1.45 ± 0.50	1.42 ± 0.49
Not satisfied	57	1.70 ± 0.46	1.68 ± 0.46	1.36 ± 0.48	1.28 ± 0.45
t-test	t=-1.062		t=2.422	t=0.940	t=1.624
p value	p=0.291		p=0.017	p=0.349	p=0.107
Regular physical activity					
Yes	31	1.61 ± 0.50	1.55 ± 0.50	1.40 ± 0.49	1.39 ± 0.50
No	93	1.67 ± 0.47	1.67 ± 0.48	1.48 ± 0.51	1.35 ± 0.48
t-test	t=0.541		t=-1.156	t=-0.836	t=-0.321
p value	p=0.590		p=0.250	p=0.405	p=0.749
Constantly drug used					
Yes	99	1.64 ± 0.48	1.64 ± 0.49	1.42 ± 0.49	1.37 ± 0.49
No	17	1.64 ± 0.49	1.58 ± 0.50	1.41 ± 0.50	1.29 ± 0.47
t-test	t=0.005		t=0.471	t=-0.095	t=-0.627
p value	p=0.996		p=0.638	p=0.924	p=0.532

Table 3: Characteristics of sleep patterns of elderly individuals (n=124).

It was found that 60.5% of the elderly individuals who participated in the study did sleep 1 to 5 hours, 65.3% were not sleeping during daytime, 62.1% had difficulty sleeping, 58.1% had sleep problems, 63.7%. She said she did not feel rested after she woke up. Malakouti et al. reported that they had a sleeping problem at a high rate of 86.2% of the elderly [12]. In the study conducted by Fadıloğlu et al. who live in the nursing home, the average sleep quality score was 8.02 ± 2.87 and 77% of the elderly were found to have poor sleep quality [13]. It is stated that sleep problems are more prevalent in elderly people living in long-term nursing homes such as nursing homes [14]. It is thought that sleep problems may also be caused by side effects of medications used. It was determined that the elderly was not afraid to fall (65.3%), (34.7%). Yeşilbalkan and Karadakovan reported that 59.9% of the elderly were afraid of falling [15]. The findings of this study are similar. Meriç and Oflaz reported that the majority of the elderly was afraid to fall and that they were restricting themselves in their daily activities [16]. The elderly was afraid of falling and thus restricted themselves to fulfill their daily life activities [17]. We may think that the elderly is afraid of falling, and therefore that bringing restrictions on their daily lives may lead to problems in fulfilling the individual needs of the elderly, and may lead to further problems as a result of movement limitation in the course of the proceeding. Fear of falling can be considered as an important condition that increases the risk of falling as well as causing the elderly to limit their activities. This finding highlights the importance of addressing the fear of falls in the elderly and falling fear of developing independence in daily life activities.

It has been determined that 49.6% of elderly individuals have fallen within the last year. Fisher et al. reported an annual fall rate of 55.0% in the elderly [18]. Cosart reported fall rate as 48% [19]. In the last year, Shumway-Cook et al. reported 53.3% [20]. Muir has found a 50.0% drop in the last year [21]. Atman et al. (49.2%) and Keskinoğlu et al. (67.0%) reported that elderly people received the first order of fall in the order of accident at home [22,23]. Our study finds similarities with studies done in our country and abroad. These findings show that dropping out in the elderly is a common problem. We can say that falls and related problems in the elderly are important and priority problems. It is observed that the oldest people who fallen have the lowest number of banyoda (51.7%) and then fallen in the room, corridor and garden respectively. Unlike study findings, Deprey's study reported that the elderly fell most in bedrooms and then in bathrooms, kitchens, and living rooms [24]. This may be due to the fact that the

study was conducted abroad and May depend on the differences in domestic characteristics. Cosart similarly reported that my work fell most of the elderly [19]. Older people often fall into the bathroom, which can be attributed to the fact that the elderly individual is alone in his/her privacy. When elderly individuals are evaluated for falling, we can say that the riskiest area is the bathroom.

Conclusions and Implications

The results of this study show that the elderly people have difficulty sleeping, have sleeping problem, and they did not feel rested after waking up. It is important the elderly people to be educated and counseled in order to solve the sleeping problem. Also, it is considered the elderly people to be aware of the behaviors that may cause sleeping problems to prevent/reduce the sleeping problem.

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References

1. Yücel N (2009) Activities that add value to demented years. İstanbul: IBB Press.
2. Pandi-Perumal SR, Seils LK, Kayumov L, Ralph MR, Lowe A, et al. (2002) Senescence, sleep, and circadian rhythms. Ageing Res Rev 1: 559-604.
3. Sukying C, Bhokakul V, Udomsubpayakul U (2003) An epidemiological study on insomnia in an elderly Thai population. J Med Assoc Thai 86: 316-324.
4. Schubert CR, Cruickshanks KJ, Dalton DS, Klein BE, Klein R, et al. (2002) Prevalence of sleep problems and quality of life in an older population. Sleep 25: 889-893.
5. Lesage S, Scharf SM (2007) Beyond the usual suspects: Approaching sleep in elderly people. J Gerontol A Biol Sci Med Sci 62: 53-54.
6. Wolkove N, Elkholy O, Baltzan M, Palayew M (2007) Sleep and aging: Sleep disorders commonly found in older people. CMAJ 176: 1299-1304.
7. Williams JR (2004) Gerontologic nurse practitioner care guidelines: Sleep management in elderly. Geriat Nurs 25: 310-312.
8. Tokem Y, Karadakovan A (2004) Investigation of the effect of individualized drug training program on elderly individuals' drug administration. Health Soc 14: 79-87.
9. Arslan G, Eşer İ (2005) The effect of educatıon gıven on drug usage adaptatıon ın the elderly. J Turk Geriatri 8: 134-140.
10. Koç Z (2002) Determination of opinions of older persons about old age status. J Nursing Forum 5: 67-77.
11. Bayık A, Altug Ozsoy S, Uysal A, Ergül Ş, Vural B, et al. (2009) Health understanding in the elderly. J Family Soc 4: 95-105.
12. Malakouti SK, Foroughan M, Nojomi M, Ghalebandi MF, Zandi T (2009) Sleep patterns, sleep disturbances and sleepiness in retired Iranian elders. Int J Geriatr Psychiatry 24: 1201-1208.
13. Fadiloglu C, İlkbay Y, Yıldırım Kuzeyli Y (2006) Sleep quality in the elderly residing in nursing homes. Turk J Geriatr 9: 165-169.
14. Martin JL, Webber AP, Alam T, Harker JO, Josephson KR, et al. (2006) Daytime sleeping, sleep disturbance, and circadian rhythms in the nursing home 14: 121-129.
15. Yesilbalkan OU, Karadakovan A (2005) The frequency of falls and the factors affecting fall in elderly people living in Narlıdere resting and nursing home. Turk J Geriatr 8: 72-77.
16. Meriç M, Oflaz F (2007) A qualitative study on the perceptions of the elderly individuals about the experience of falling and its effect on their daily lives. Turk J Geriatr 10: 19-23.
17. Kehinde JO (2009) Instruments for measuring fall risk in older adults living in long-term care facilities: An integrative review. J Gerontol Nursing 35: 46-55.
18. Fisher AA, Davis MW, McLEan AJ, Couteur DGL (2005) Epidemiology of falls in elderly semi-independent resident in residential care. Australas J Ageing 24: 98-102.
19. Cosart HCT (2009) Environmental effects on incidence of falls in the hospitalized elderly. Texas Woman"s University. Denton. 62-65.
20. Shumway-Cook A, Ciol MA, Gruber W, Robinson C (2005) Incidence of and risk factors for falls following hip fracture in community-dwelling older adults. Phys Ther 85: 648-655.
21. Muir SW (2009) Clinical assessment of balance to identify fall risk in community-dwelling lder adults. The University of Western Ontario. Doctoral Thesis. London, UK 93-95.
22. Keskinoglu P, Giray H, Picakcıefe M, Bilgiç N, Uçku R (2004) In-house accidents in the elderly in the İnönü health center district. Turk J Geriatr 7: 89-94.
23. Atman ÜC, Dinç G, Oruçoğlu A, Oğurlu H, Ecebay A (2007) Manisa Muradiye factors associated with accident frequency and accident in the elderly in the Health Centers region. Turk J Geriatr 10: 83-87.
24. Deprey SM (2009) Descriptive analysis of fatal falls of older adults in a Midwestern County in the year 2005. J Geriatr Phys Ther 32: 23-28.