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Evaluation of Sleep Hygiene According to the Sociodemographic Characteristics of the Nurses

Hemşirelerin Sosyodemografik Özelliklerine Göre Uyku Hijyeninin Değerlendirilmesi

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ABSTRACT

Objective: This study was conducted to determine the evaluation of sleep hygiene according to the sociodemographic characteristics of nurses.

Materials and Methods: This is a descriptive study. Permission was obtained from Hakkari University Scientific Research and Publication Ethics Committee for research permission. It was collected by 243 nurses who voluntarily participated in the study, using the online questionnaire method, sociodemographic data collection form and sleep hygiene index (SHI). The SPSS 26.0 data analysis program was used for the t-test and one-way analysis of variance (ANOVA).

Results: According to the sociodemographic characteristics of the nurses participating in the study, the average of the total sleep hygiene index scores in the evaluation of sleep hygiene was 34.68; When the averages of the 4th, 9th, 10th and 11th items were examined, it was determined that the results were generally "low level" and the averages of the other items were "medium".

Conclusion: It was determined that the sleep hygiene index scores of the nurses were "moderate". Organising training programs for nurses to increase sleep hygiene and quality (emphasising its physiological and spiritual importance) will help improve sleep hygiene and quality.

Keywords: Assessment, nurses, sociodemographic characteristics, sleep hygiene

ÖZ

Amaç: Bu çalışma, hemşirelerin sosyodemografik özelliklerine göre uyku hijyeninin değerlendirilmesini belirlemek amacıyla yapılmıştır.

Materyal ve Metot: Bu tanımlayıcı bir çalışmadır. Araştırma izni için Hakkari Üniversitesi Bilimsel Araştırma ve Yayın Etiği Kurulu'ndan izin alınmıştır. Araştırmaya gönüllü olarak katılan 243 hemşire tarafından online anket yöntemi, sosyodemografik veri toplama formu ve uyku hijyeni indeksi (SHI) kullanılarak toplanmıştır. İstatistiksel analizlerde SPSS 26.0 veri analiz programı ile t testi ve tek yönlü varyans analizi (ANOVA) kullanılmıştır.

Bulgular: Çalışmaya katılan hemşirelerin sosyodemografik özelliklerine göre uyku hijyeni değerlendirmesinde toplam uyku hijyeni indeksi puanlarının ortalaması 34,68; 4., 9., 10. ve 11. maddelerin ortalamaları incelendiğinde sonuçların genel olarak "düşük düzeyde", diğer maddelerin ortalamalarının ise "orta" olduğu belirlenmiştir.

Sonuç: Hemşirelerin uyku hijyen indeksi puanlarının "orta" olduğu belirlendi. Hemşirelere yönelik uyku hijyeni ve kalitesini artırmaya yönelik (fizyolojik ve ruhsal önemini vurgulayan) eğitim programları düzenlenmesi uyku hijyeni ve kalitesinin artmasına yardımcı olacaktır.

Anahtar Kelimeler: Değerlendirme, hemşireler, sosyodemografik özellikler, uyku hijyeni

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INTRODUCTION

Sleep, one of the most fundamental needs of human beings, is at the bottom of the pyramid table called "Maslow's Hierarchy of Basic Needs."[1] Sleep affects the quality of life of all organisms, especially humans; It is an important basic need that affects physiological, psychological and social.[2] Sleep hygiene is important in ensuring sleep quality.[3,4] Sleep hygiene is the principles that increase the quality of sleep.[5] Sleep quality, on the other hand, is the practices and habits created for a good sleep regularly that support better sleep. The need for sleep hygiene and quality is affected by sociodemographic characteristics (education status and institution of employment) and environmental factors such as age, gender, illness, physical activity, emotional state, drugs, environment, alcohol, and other stimulants.[6] In the study of sleep quality according to sociodemographic characteristics (gender, marital status) conducted with nurses, it was shown that there was a positive relationship between sleep quality, hygiene and age and that single nurses had significant differences in sleep quality according to marital status, and showed better quality sleep compared to divorced or separated nurses.[7] Psychological status and sleep quality of nursing interns during the outbreak of COVID-19; It was stated that variables such as age and marital status level negatively affected the sleep quality of nurses and reflected on their quality of life. It was generally determined that nurses had problems such as waking up frequently during sleep, having nightmares, and turning over in bed.[8] Associations between the timing and nutritional characteristics of bedtime meals and sleep quality for nurses after a rotating night shift: a cross-sectional analysis study found a significant relationship between nurses' results regarding age, gender, marital status, educational status, and having a child, and their sleep quality.[9]

Is there a relationship between nurses' sociodemographic characteristics and sleep hygiene? Supported by research on the hypothesis. In the study of Siva et al.,[10] It was concluded that there is a relationship between sociodemographic information and sleep hygiene. Pathways between multiple sclerosis, sleep disorders, and cognitive function by Braley et al., longitudinal findings from The Nurses' Health Study reveal that employees generally sleep less than 8 hours and wake up frequently at night.[11] In the study of Simonetti et al., it was concluded that the nurses could not sleep due to their shifts and slept intermittently while on leave.[12]

This study aimed to evaluate the sleep hygiene of nurses according to their sociodemographic characteristics.

MATERIALS AND METHODS

Ethical Considerations: The study was carried out by the Helsinki Declaration and approved by Hakkari University Scientific Research and Publication Ethics Committee (Date: 25.04.2022, decision no: IRB:2022/40-1), and written consent was obtained.

Study Design: The study was conducted as a descriptive study to evaluate nurses' sleep hygiene according to their sociodemographic characteristics.

Research Questions: Is there a significant difference in sleep hygiene of nurses according to sociodemographic characteristics (age, gender, marital status, education level, health institution)

Place and Time of the Study: It was collected between 25 April 2022 and 20 June 2022 on nurses who voluntarily participated in Hakkari and filled out the informed consent form using an online questionnaire (Google Form). A sociodemographic data form, sleep hygiene index, and an informed consent form created online in Google form were added, and the nurses participating in the study accepted and marked the informed consent form and their consent was obtained. It took an average of 5 minutes for the nurses participating in the study to answer the questions.

Sample: The research population was planned to be composed of nurses in Türkiye who voluntarily participated in the study between 25 April 2022 and 20 June 2022 and filled out the informed consent form. However, since it is nearly impossible to reach all nurses in Türkiye, the study was created online. An online survey (Google Forms) has been tried to be achieved through social networks and social media. The sample size in the study was calculated based on the number of variables used in multivariate data analysis. Since there were 13 statements in the questionnaire, it was aimed to reach 250 people. In this context, the research sample was selected from nurses working in Hakkari province, in the eastern region of Türkiye. The convenience sampling method included 243 nurses who participated voluntarily and met the conditions of participation.

Variables of the Study

Research Inclusion Criteria: - Nurses who agreed to participate in the study voluntarily and nurses who filled out the informed consent form.

Research Exclusion Criteria: - Nurses who did not agree to participate in the study voluntarily and nurses who filled out the informed consent form.

Data Collection Tools: Research data were collected with the following data collection forms: 1- Sociodemographic data collection form; 2- Sleep Hygiene Index (SHI) was used.

***Sociodemographic Data Collection Form*:** This form, which nurses will fill, consists of 5 questions

regarding gender, age, marital status, educational status, and the institution they work for.

Sleep Hygiene Index (SHI): UHI was developed as its Turkish validity and reliability performed by Güzel Özdemir et al. The questionnaire consists of 13 questions. The questions are on a 5-point Likert scale (none: 1, rarely: 2, sometimes: 3, often: 4, and always: 5). The scale enables the evaluation of sleep behaviours that constitute the sleep hygiene of the participants. Scores ranged from 13 to 65, with higher scores indicating poorer sleep hygiene in the participants. The Cronbach Alpha value of SHI was calculated as 0.70, which was valid and reliable.[13] In our study, the Cronbach Alpha value was 0.73.

Statistical Analysis: SPSS (Statistical Package for Social Sciences) 26.0 package program was used to analyse the data. T-test and one-way analysis of variance (ANOVA) was used in the study of sleep hygiene according to the sociodemographic characteristics of the nurses ($p<0,05$).

RESULTS

Regarding sociodemographic characteristics, of the nurses participating in the study, 56.8% were women. 58% are married. When the nurses are analysed according to age groups, 33.7% are 26-30 years old age group. Educational status is examined; 71.2% of them are undergraduates. When the data are analysed according to the health institutions they work in, 58% work in public hospitals (Table 1).

Mean Scores and Results of the Items in the Sleep Hygiene Index: In the sleep hygiene index of the study, the 2nd item, "The hours I go to bed changes from day to day" ($\bar{x}=3.36\pm\sigma=1.04$), the 3rd item, "The time I get out of bed changes from day to day" ($\bar{x}=2.95\pm\sigma=1.107$) and item 7 "Before bedtime, I do something that increases my alertness. (e.g., playing video games, using the internet or cleaning)" ($\bar{x}=2.84\pm\sigma=1.223$) and the 4th item, which is the behaviour that nurses do most frequently and affects sleep hygiene the most, is "1 hour before going to bed. When the averages of the 4th, 9th, 10th and 11th items in the sleep hygiene index were examined, the results were found to be "low level" in general, and the averages of the other items and the average of the total sleep hygiene index scores were found to be "moderate" (Tablo 2).

Table 1. Findings related to sociodemographic characteristics.

		n (%)
Gender	Male	105 (43.2)
	Female	138 (56.8)
Marital status	Single	141 (58.0)
	Married	102 (42.0)
Age Group	20-25 age	29 (11.9)
	26-30 age	82 (33.7)
	31-35 age	51 (21.0)
	36-40 age	40 (16.5)
	41-45 age	30 (12.3)
	46-50 age	11 (4.6)
Level of Education	Undergraduate	173 (71.2)
	Associate degree	23 (9.5)
	Health High School	13 (5.3)
	Master's degree and above	34 (14.0)
Employed Institution	Public Hospital	141 (58.0)
	Private Hospital	60 (24.7)
	Other (family medicine etc.)	42 (17.3)
Total		243 (100.0)

Table 2. Mean scores and results of the items in the sleep hygiene index.

	Mean±SD	**Result**
1. I take a nap for two hours or more during the day.	2.67±1.167	Intermediate
2. The hours I go to bed vary from day to day.	3.36±1.04	Intermediate
3. The time I get out of bed varies from day to day.	2.95±1.107	Intermediate
4. Within 1 hour before going to bed, I exercise until I sweat.	2.1±1.079	Low level
5. I stay in bed longer than I should two or three times a week.	2.65±1.166	Intermediate
6. I use alcohol, tobacco or caffeine in the 4 hours before or after going to bed.	2.65±1.301	Intermediate
7. Before bedtime, I do something that increases my alertness. (e.g. playing video games, using the internet, or cleaning)	2.84±1.223	Intermediate
8.I get stressed, angry, sad, or nervous when I go to bed.	2.63±1.136	Intermediate
9. I use my bed for other things besides sleeping (for example, watching TV, reading, eating or studying)	2.6±1.176	Low level
10. I sleep in an uncomfortable bed. (For example, I have a bad mattress or pillow, too thick or thin duvet)	2.37±1.23	Low level

Table 2. Continue.

11.I sleep in an uncomfortable bedroom (For example, it gets too much light, too stuffy, too hot, too cold, or too noisy)	2.35±1.278	Low level
12.Before I go to bed, I do important things that need my attention. (For example, paying bills, programming or working)	2.65±1.15	Intermediate
13.I think, plan, or worry while in bed.	2.81±1.18	Intermediate
Total Sleep Hygiene Index Scores	34.63±7.81	Intermediate

Findings related to the evaluation of sleep hygiene according to the age variable, because of the analysis, it was found that there was a statistically significant difference between the averages of sleep hygiene index items 1, 4, 5, 10, 11, and 13 according to age groups ($p<0.05$). It was found that there was no difference between the means of the 2nd, 3rd, 6th, 7th, 8th, 9th, and 12th items ($p>0.05$) (Table 3).

Table 3. Findings regarding the evaluation of sleep hygiene by age variable.

Substances		n	**Mean±SD**	F	df	p	**Difference**
SHI-1	20-25 age	29	2.07±1.25	3.338	5	0.006	20-25 years to31-35 years old
	26-30 age	82	2.71±1.05				
	31-35 age	51	3.06±1.08				
	36-40 age	40	2.8±1.16				
	41-45 age	30	2.43±1.22				
	46-50 age	11	2.36±1.43				
	Total	243	2.67±1.17				
SHI-2	20-25 age	29	3.38±1.35	0.452	5	0.812	None
	26-30 age	82	3.35±1.02				
	31-35 age	51	3.39±1				
	36-40 age	40	3.38±0.95				
	41-45 age	30	3.43±1.01				
	46-50 age	11	2.91±0.94				
	Total	243	3.36±1.04				
SHI-3	20-25 age	29	3.07±1.19	1.889	5	0.097	None
	26-30 age	82	3.18±1.02				
	31-35 age	51	2.86±1.06				
	36-40 age	40	2.85±1.14				
	41-45 age	30	2.63±1.22				
	46-50 age	11	2.45±1.04				
	Total	243	2.95±1.11				
SHI-4	20-25 age	29	1.76±0.99	2.572	5	0.027	31 years. 36-40 years and 46-50 years
	26-30 age	82	2.05±1.06				
	31-35 age	51	2.41±1.17				
	36-40 age	40	2.28±1.09				
	41-45 age	30	2.03±1.03				
	46-50 age	11	1.45±0.52				
	Total	243	2.1±1.08				
SHI-5	20-25 age	29	3.17±1.54	2.653	5	0.023	20-25 years old. 36-40 years old. 41-45 years old and 46-50 years old
	26-30 age	82	2.72±1.13				
	31-35 age	51	2.75±1.13				
	36-40 age	40	2.33±1.07				
	41-45 age	30	2.47±0.97				
	46-50 age	11	2.09±0.83				
	Total	243	2.65±1.17				
SHI-6	20-25 age	29	2.86±1.51	0.884	5	0.492	None
	26-30 age	82	2.68±1.28				
	31-35 age	51	2.8±1.33				
	36-40 age	40	2.33±1.16				
	41-45 age	30	2.5±1.25				
	46-50 age	11	2.64±1.43				
	Total	243	2.65±1.3				

Table 3. Continue.

SHI-7	20-25 age	29	2.97±1.4	0.604	5	0.697	None
	26-30 age	82	2.96±1.16				
	31-35 age	51	2.84±1.24				
	36-40 age	40	2.78±1.25				
	41-45 age	30	2.6±1.07				
	46-50 age	11	2.55±1.51				
	Total	243	2.84±1.22				
SHI-8	20-25 age	29	2.66±1.08	1.309	5	0.261	None
	26-30 age	82	2.79±1.18				
	31-35 age	51	2.67±1.26				
	36-40 age	40	2.65±0.89				
	41-45 age	30	2.23±1.01				
	46-50 age	11	2.27±1.35				
	Total	243	2.63±1.14				
SHI-9	20-25 age	29	2.93±1.28	1.569	5	0.170	None
	26-30 age	82	2.73±1.16				
	31-35 age	51	2.59±1.12				
	36-40 age	40	2.45±1.32				
	41-45 age	30	2.23±0.97				
	46-50 age	11	2.27±1.1				
	Total	243	2.6±1.18				
SHI-10	20-25 age	29	1.55±0.69	3.883	5	0.002	20-25 years old. 26.30
	26-30 age	82	2.45±1.27				years old. 31-35 years
	31-35 age	51	2.67±1.18				old. 36-40 years old
	36-40 age	40	2.53±1.24				
	41-45 age	30	2.37±1.27				
	46-50 age	11	1.91±1.38				
	Total	243	2.37±1.23				
SHI-11	20-25 age	29	1.79±0.98	4.212	5	0.001	20-25 years old. 31-35
	26-30 age	82	2.27±1.19				years old. 36-40 years
	31-35 age	51	2.59±1.25				old
	36-40 age	40	2.73±1.41				
	41-45 age	30	2.57±1.45				
	46-50 age	11	1.27±0.65				
	Total	243	2.35±1.28				
SHI-12	20-25 age	29	2.62±1.42	1.019	5	0.407	None
	26-30 age	82	2.62±1.06				
	31-35 age	51	2.84±1.17				
	36-40 age	40	2.65±1.19				
	41-45 age	30	2.7±1.06				
	46-50 age	11	2±0.89				
	Total	243	2.65±1.15				
SHI-13	20-25 age	29	3.17±1.23	2.391	5	0.039	20-25 years. 36-40
	26-30 age	82	2.89±1.18				years. 46-50 years
	31-35 age	51	2.84±1.24				
	36-40 age	40	2.4±0.84				
	41-45 age	30	2.97±1.35				
	46-50 age	11	2.18±0.98				
	Total	243	2.81±1.18				

F: One-way ANOVA test ($p<0.05$); SHI: Sleep Hygiene Index.

Findings related to the evaluation of sleep hygiene according to the gender and marital status variable, as a result of the analysis of the sleep hygiene index scores according to the gender of the nurses, it was determined that there was no statistically significant difference between the averages of the 1st, 2nd, 3rd, 5th, 6th, 7th, 8th, 12th, and 13th items according to the gender ($p>0.05$). It was found that men's sleep hygiene scores were higher in items 4, 9, 10, and 11 according to their gender, and their averages differed ($p<0.05$); item 4, "I exercise until I sweat within 1 hour before I go to bed" ($t=2.879$; $p<0.05$). As a result of the analysis, there was no statistically significant difference between the averages of the 1st, 2nd, 3rd, 4th, 5th, 7th, 8th, 10th, 11th, 12th, and 13th items according to marital status ($p>0.05$). It was found that singles had high sleep hygiene scores, and their averages were different ($t=2.001$; $p<0.05$: $t=2.672$; $p<0.05$) (Table 4).

Table 4. Findings related to the evaluation of sleep hygiene according to the gender and marital status variable.

Substances		n	Mean±SD	F	df	p
SHI-1	Male	105	2.79±1.14	1.397	241	0.164
	Female	138	2.58±1.18			
SHI-2	Male	105	3.33±1.06	-0.322	241	0.748
	Female	138	3.38±1.03			
SHI-3	Male	105	2.98±1.14	0.423	241	0.673
	Female	138	2.92±1.08			
SHI-4	Male	105	2.32±1.01	2.879	241	0.004
	Female	138	1.93±1.1			
SHI-5	Male	105	2.6±1.22	-0.633	241	0.528
	Female	138	2.7±1.12			
SHI-6	Male	105	2.79±1.32	1.513	241	0.132
	Female	138	2.54±1.28			
SHI-7	Male	105	2.96±1.17	1.317	241	0.189
	Female	138	2.75±1.26			
SHI-8	Male	105	2.71±1.26	0.964	241	0.336
	Female	138	2.57±1.03			
SHI-9	Male	105	2.83±1.22	2.717	241	0.007
	Female	138	2.42±1.11			
SHI-10	Male	105	2.58±1.27	2.396	241	0.017
	Female	138	2.2±1.18			
SHI-11	Male	105	2.57±1.3	2.427	241	0.016
	Female	138	2.17±1.24			
SHI-12	Male	105	2.63±1.11	-0.304	241	0.761
	Female	138	2.67±1.18			
SHI-13	Male	105	2.66±1.14	-1.776	241	0.077
	Female	138	2.93±1.2			
SHI-1	Single	141	2.76±1.121	1.386	241	0.167
	Married	102	2.55±1.224			
SHI-2	Single	141	3.2±1.057	2.850	241	0.005
	Married	102	3.58±0.979			
SHI-3.	Single	141	2.93±1.033	0.288	241	0.774
	Married	102	2.97±1.206			
SHI-4	Single	141	2.19±1.028	1.580	241	0.115
	Married	102	1.97±1.138			
SHI-5	Single	141	2.71±1.192	0.863	241	0.389
	Married	102	2.58±1.13			
SHI-6	Single	141	2.79±1.292	2.001	241	0.047
	Married	102	2.45±1.295			
SHI-7	Single	141	2.82±1.249	0.313	241	0.755
	Married	102	2.87±1.191			
SHI-8	Single	141	2.7±1.157	1.104	241	0.271
	Married	102	2.54±1.105			
SHI-9.	Single	141	2.77±1.163	2.672	241	0.008
	Married	102	2.36±1.159			
SHI-10	Single	141	2.36±1.117	0.068	241	0.946
	Married	102	2.37±1.378			
SHI11.	Single	141	2.29±1.174	0.787	241	0.432
	Married	102	2.42±1.41			
SHI-12	Single	141	2.76±1.121	1.675	241	0.095
	Married	102	2.51±1.175			
SHI-13	Single	141	2.82±1.169	0.076	241	0.940
	Married	102	2.8±1.203			

F: Independent groups t-test ($p<0.05$); SHI: Sleep Hygiene Index.

Findings on the evaluation of sleep hygiene according to the variable of educational status because of the analysis, it was found that there was a statistically significant difference between the averages of the 10th and 13th items of the sleep hygiene index according to the education level of the nurses ($p<0.05$). At the same time, there was no difference between the other items ($p>0.05$), Findings regarding the evaluation of sleep hygiene according to the institution of employment variable. It was found that there was a statistically significant difference between the averages of sleep hygiene index items 10 and 11 according to the variable of the institution where the nurses worked ($p<0.05$). Still, there was no difference between the other items ($p>0.05$) (Table 5).

Table 5. Findings on the evaluation of sleep hygiene according to the variable of educational status and institution of employment.

Substances		n	Mean±SD	F	df	p	Difference
SHI-1	Undergraduate	173	2.76±1.16	1.488	3	0.218	None
	Associate Degree	23	2.39±1.23				
	Health High School	13	2.77±1.24				
	Master and above	34	2.38±1.13				
	Total	243	2.67±1.17				
SHI-2	Undergraduate	173	3.42±1.02	0.943	3	0.420	None
	Associate Degree	23	3.13±1.06				
	Health High School	13	3.08±1.38				
	Master and above	34	3.29±1				
	Total	243	3.36±1.04				
SHI-3	Undergraduate	173	2.97±1.12	0.131	3	0.942	None
	Associate Degree	23	2.83±0.98				
	Health High School	13	2.92±1.26				
	Master and above	34	2.91±1.08				
	Total	243	2.95±1.11				
SHI-4	Undergraduate	173	2.1±1.12	1.978	3	0.118	None
	Associate Degree	23	2.52±1.08				
	Health High School	13	2±0.91				
	Master and above	34	1.82±0.87				
	Total	243	2.1±1.08				
SHI-5	Undergraduate	173	2.59±1.17	1.353	3	0.258	None
	Associate Degree	23	2.57±0.95				
	Health High School	13	3.15±1.21				
	Master and above	34	2.85±1.23				
	Total	243	2.65±1.17				
SHI-6	Undergraduate	173	2.64±1.3	0.446	3	0.720	None
	Associate Degree	23	2.48±1.2				
	Health High School	13	3±1.15				
	Master and above	34	2.65±1.43				
	Total	243	2.65±1.3				
SHI-7	Undergraduate	173	2.92±1.25	1.353	3	0.258	None
	Associate Degree	23	2.87±1.1				
	Health High School	13	2.31±0.95				
	Master and above	34	2.65±1.25				
	Total	243	2.84±1.22				
SHI-8	Undergraduate	173	2.7±1.16	0.768	3	0.513	None
	Associate Degree	23	2.48±0.99				
	Health High School	13	2.62±1.33				
	Master and above	34	2.41±1.05				
	Total	243	2.63±1.14				
SHI-9	Undergraduate	173	2.68±1.2	1.152	3	0.329	None
	Associate Degree	23	2.43±0.95				
	Health High School	13	2.23±1.09				
	Master and above	34	2.41±1.18				
	Total	243	2.6±1.18				
SHI-10	Undergraduate	173	2.45±1.24	2.985	3	0.032	Undergraduate and postgraduate and above
	Associate Degree	23	2.57±1.16				
	Health High School)	13	2.46±1.05				
	Master and above	34	1.79±1.17				
	Total	243	2.37±1.23				
SHI-11	Undergraduate	173	2.4±1.31	1.201	3	0.310	None
	Associate Degree	23	2.35±1.19				
	Health High School	13	2.54±1.13				
	Master and above	34	1.97±1.19				
	Total	243	2.35±1.28				

Table 5. Continue.

SHI-12	Undergraduate	173	2.58±1.17	0.918	3	0.433	None
	Associate Degree	23	2.78±0.95				
	Health High School	13	2.85±1.07				
	Master and above	34	2.88±1.2				
	Total	243	2.65±1.15				
SHI-13	Undergraduate	173	2.73±1.16	3.084	3	0.028	Undergraduate and postgradu-ate and above
	Associate Degree	23	2.52±1.31				
	Health High School	13	3.15±1.21				
	Master and above	34	3.29±1.09				
	Total	243	2.81±1.18				
SHI-1	Public Hospital	141	2.68±1.17	1.109	2	0.331	None
	Other (family medicine etc.)	42	2.45±1.17				
	Private Hospital	60	2.8±1.15				
	Total	243	2.67±1.17				
SHI-2	Public Hospital	141	3.4±1.07	0.432	2	0.650	None
	Other (family medicine etc.)	42	3.38±0.99				
	Private Hospital	60	3.25±1.02				
	Total	243	3.36±1.04				
SHI-3	Public Hospital	141	3±1.08	0.919	2	0.400	None
	Other (family medicine etc.)	42	2.74±1.29				
	Private Hospital	60	2.97±1.02				
	Total	243	2.95±1.11				
SHI-4	Public Hospital	141	1.97±1.07	11.27	2	0.000	None
	Other (family medicine etc.)	42	1.76±0.98	6			
	Private Hospital	60	2.63±0.99				
	Total	243	2.1±1.08				
SHI-5	Public Hospital	141	2.69±1.16	0.142	2	0.868	None
	Other (family medicine etc.)	42	2.62±1.19				
	Private Hospital	60	2.6±1.18				
	Total	243	2.65±1.17				
SHI-6	Public Hospital	141	2.6±1.33	0.565	2	0.569	None
	Other (family medicine etc.)	42	2.57±1.4				
	Private Hospital	60	2.8±1.16				
	Total	243	2.65±1.3				
SHI-7	Public Hospital	141	2.82±1.25	0.228	2	0.797	None
	Other (family medicine etc.)	42	2.79±1.32				
	Private Hospital	60	2.93±1.1				
	Total	243	2.84±1.22				
SHI-8	Public Hospital	141	2.6±1.1	0.718	2	0.489	None
	Other (family medicine etc.)	42	2.55±1.29				
	Private Hospital	60	2.78±1.12				
	Total	243	2.63±1.14				
SHI-9	Public Hospital	141	2.52±1.19	1.399	2	0.249	None
	Other (family medicine etc.)	42	2.52±1.11				
	Private Hospital	60	2.82±1.17				
	Total	243	2.6±1.18				
SHI-10	Public Hospital	141	2.3±1.25	4.372	2	0.014	Other (family medicine, etc.)
	Other (family medicine etc.)	42	2.05±1.21				
	Private Hospital	60	2.73±1.13				Private Hospital
	Total	243	2.37±1.23				
SHI-11	Public Hospital	141	2.16±1.26	4.593	2	0.011	Public Hospital. Private Hospital
	Other(family medicine etc.)	42	2.38±1.34				
	Private Hospital	60	2.75±1.19				
	Total	243	2.35±1.28				
SHI-12	Public Hospital	141	2.52±1.17	2.936	2	0.055	None
	Other (family medicine etc.)	42	2.67±1.18				
	Private Hospital	60	2.95±1.03				
	Total	243	2.65±1.15				
SHI-13	Public Hospital	141	2.8±1.11	2.271	2	0.105	None
	Other (family medicine etc.)	42	3.12±1.31				
	Private Hospital	60	2.62±1.22				
	Total	243	2.81±1.18				

F: Independent groups t-test ($p<0.05$); SHI: Sleep Hygiene Index.

DISCUSSION AND CONCLUSION

Evaluation of sleep hygiene in nurses according to their sociodemographic characteristics (age, gender, marital status, educational status, health institution) is vital in terms of sleep quality. When the averages of our research findings and the total sleep hygiene index scores were examined, it was concluded that it was at a moderate level. When the literature is reviewed, it is seen that there are a limited number of studies examining the evaluation of sleep hygiene according to the sociodemographic characteristics (age, institution of employment and economical situation) of nurses. The results of the study titled The Effect of the stress response, physical activity, and sleep hygiene on sleep quality[14] of nurses working in Shifts and the study titled The Role of sleep hygiene in the Risk of Shift Work Disorder in Nurses are like our findings. In the study conducted by Sun et al. on sleep problems of nurses during work shifts, they stated that nurses were sleepless at work and their sleep quality was moderate or poor.[15] The effect of the nurse-oriented sleep hygiene protocol on sleep quality is in parallel with the total sleep hygiene result found in our research results, in which the effect of sleep problems was determined, and sleep hygiene was poor.[16]

Findings related to the evaluation of sleep hygiene according to the age variable of nurses Park et al. investigated the relationship between nurses' sleep quality and job performance, and it was determined that the nurses were in favour as their average age increased.[17] The results of the study conducted by Karakaş et al. on sleep problems and influential factors in nurses are similar.[18] The fact that sleep hygiene is better with increasing age may be related to the increase in the nurses' compliance as the working years increase or the fact that the nurses whose working years increase are removed from the night shift and work only during the day.

Results on the evaluation of sleep hygiene of nurses according to gender variable in the study of Çetinol and Özvurmaz.,[19] comparing the sleep-related characteristics of shift and non-shift nurses, it was determined that male nurses had higher sleep quality. In another study, Ferri et al.'s results on the psychological dimension of shift work on nurses, in which male nurses do active activities before bed and have a high sleep quality are compatible with our findings.[20] Findings related to sleep hygiene according to the marital status variable of nurses In the study conducted by Kaçan et al., examining the sleep quality of nurses is consistent with the results that single people have higher sleep quality.[21] In the study of Şentürk et al., investigating the relationship between the burnout levels of intensive care nurses and sleep quality, it was found that married people had sleep problems.[22] According to the marital status of the nurses, it was concluded that single nurses had fewer sleep problems than married nurses.

Results on the evaluation of sleep hygiene according to the variable of education status of nurses The results of Toros's study on the working (Including 28 nurses working in 16- and 24-hour shifts) conditions of night nurses are similar.[23] A hospital cross-sectional study by Giorgi et al.[24] (It consisted of 315 nurses working in shifts in 39 hospital services) according to the results of Giorgi et al.'s study, it was concluded that the unique characteristics of nurses working in shifts could affect sleep quality and burnout directly or indirectly on work performance.

In the study, it was determined that there was a difference between the sleeping levels in an uncomfortable bed between those working in other (family medicine, dispensaries, etc.) institutions compared to those working in private hospitals. Psychometric analysis of the Chinese version of the Sleep Hygiene Index in nursing students in China: in a cross-sectional study, volunteer student nurses stated that they were more tired and sleepless and had a higher workload in private hospitals.[25] According to the study titled The Relationships Between Cortisol, Sleep, Stress and Mood in Night Shift Nurses, nurses working in government institutions are more comfortable and have no sleep problems. Still, nurses working in private institutions are more tired.[26] Poor Sleep Quality in Nurses Working and Past Night Shift: A Cross-sectional Study Results revealed in our findings that those who have the most sleep hygiene problems are those who work in private hospitals, and those who have minor sleep hygiene problems are family medicine, dispensaries, etc. This is consistent with the results that employees in organisations provide health services.[27]

In conclusion, this study does not reflect the general nurses in our country and is limited to the nurses who participated in the study voluntarily. In this study, there is a relationship between the sociodemographic characteristics of nurses and sleep hygiene and quality; It was determined that more than half of the nurses had low sleep quality and sleep hygiene index scores were generally "moderate". These results show that nurses typically have problems with sleep hygiene. Studies on evaluating the sleep hygiene of nurses in Türkiye are insufficient. In this study, it is important to assess sleep hygiene in terms of the sociodemographic characteristics of nurses and will guide similar studies in the future. Organising training programs for nurses to increase sleep hygiene and quality, emphasising sleep's physiological and spiritual importance will help increase sleep hygiene and quality.

Ethics Committee Approval: The study was carried out by the Helsinki Declaration and approved by

Hakkari University Scientific Research and Publication Ethics Committee (Date: 25.04.2022, decision no: IRB:2022/40-1), and written consent was obtained.

Conflict of Interest: No conflict of interest was declared by the authors.

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