

■ Research Article

Future anxiety, sleep quality, and quality of life: a comparative study among health and literature faculty students

Gelecek kaygısı, uyku kalitesi ve yaşam kalitesi: sağlık ve edebiyat fakültesi öğrencileri arasında karşılaştırmalı bir çalışma

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Abstract

Aim: To compare levels of future anxiety, sleep quality, and quality of life between Health Sciences and Literature faculty students, and to examine the relationships among these variables.

Material and Methods: A cross-sectional survey was conducted with 200 undergraduates (100 from each faculty) at a Turkish public university. Future anxiety was measured with Zaleski's Future Anxiety Scale; sleep quality with the Pittsburgh Sleep Quality Index (PSQI); and quality of life with the SF-36 survey. Independent t-tests and chi-square tests assessed group differences, and Pearson correlations evaluated associations among anxiety, sleep, and quality of life.

Results: Health Sciences students had better overall sleep quality (lower PSQI global scores, $p = 0.007$) and lower future anxiety ($p = 0.03$) than Literature students. They also scored higher on most quality of life domains (social functioning, mental health, vitality, etc., $p < 0.05$ each). No significant group differences were found in physical functioning or emotional role scores. Overall, poorer sleep quality correlated with higher future anxiety ($r = 0.28$, $p < 0.01$) and lower quality of life ($r = -0.36$, $p < 0.01$). Future anxiety was also inversely correlated with quality of life ($r = -0.21$, $p < 0.05$).

Conclusion: Students in fields with less certain career prospects experience greater future anxiety, worse sleep, and lower quality of life than those in fields with more defined career paths. University-level interventions- such as career counseling, stress management, and sleep education- are recommended to mitigate future anxiety and improve student well-being.

Keywords: future anxiety, sleep quality, quality of life, university students, career uncertainty

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Öz

Amaç: Sağlık Bilimleri ve Edebiyat Fakültesi öğrencileri arasında gelecek kaygısı, uyku kalitesi ve yaşam kalitesi düzeylerini karşılaştırmak ve bu değişkenler arasındaki ilişkileri incelemek.

Gereç ve Yöntemler: Bir Türk devlet üniversitesinde 200 lisans öğrencisiyle (her fakülteden 100 öğrenci) kesitsel bir anket çalışması yapılmıştır. Gelecek kaygısı Zaleski'nin Gelecek Kaygı Ölçeği ile, uyku kalitesi Pittsburgh Uyku Kalitesi Endeksi (PSQI) ile ve yaşam kalitesi SF-36 anketi ile ölçüldü. Bağımsız t-testleri ve ki-kare testleri grup farklılıklarını değerlendirdi ve Pearson korelasyonları kaygı, uyku ve yaşam kalitesi arasındaki ilişkileri değerlendirdi.

Sonuçlar: Sağlık Bilimleri öğrencileri, Edebiyat öğrencilerine göre genel olarak daha iyi uyku kalitesine (daha düşük PSQI global puanları, $p = 0,007$) ve daha düşük gelecek kaygısına ($p = 0,03$) sahipti. Ayrıca, yaşam kalitesinin çoğu alanında (sosyal işlevsellik, ruh sağlığı, canlılık vb., her biri $p < 0,05$) daha yüksek puanlar aldılar. Fiziksel işlevsellik veya duygusal rol puanlarında gruplar arasında anlamlı bir fark bulunmadı. Genel olarak, daha düşük uyku kalitesi, daha yüksek gelecek kaygısı ($r = 0,28$, $p < 0,01$) ve daha düşük yaşam kalitesi ($r = -0,36$, $p < 0,01$) ile ilişkiliydi. Gelecek kaygısı da yaşam kalitesi ile ters orantılıydı ($r = -0,21$, $p < 0,05$).

Sonuç: Kariyer beklentileri daha belirsiz olan alanlardaki öğrenciler, kariyer yolları daha belirgin olan alanlardaki öğrencilere göre daha fazla gelecek kaygısı, daha kötü uyku ve daha düşük yaşam kalitesi yaşamaktadır. Gelecek kaygısını azaltmak ve öğrencilerin refahını artırmak için kariyer danışmanlığı, stres yönetimi ve uyku eğitimi gibi üniversite düzeyinde müdahaleler önerilmektedir.

Anahtar Kelimeler: gelecek kaygısı, uyku kalitesi, yaşam kalitesi, üniversite öğrencileri, kariyer belirsizliği

Introduction

University students often experience significant anxiety due to uncertainties in post-graduation employment and future prospects [1, 2]. This anxiety can lead to various academic, social, and psychological problems [3]. Career-related future anxiety is also suspected to have a notable impact on sleep quality and overall quality of life [4]. For example, more than 60% of college students have been classified as poor sleepers [5], and disruptions in sleep quality can negatively affect students' daytime functioning, academic performance, and mental health [5, 6].

"Future anxiety" refers to the worry individuals feel about uncertainties and risks in their future. As this anxiety increases, students' quality of life and psychological resilience may decrease. Instruments like Zaleski's Future Anxiety Scale (FAS) help to objectively assess dimensions of this anxiety [7, 8]. On the other hand, the Pittsburgh Sleep Quality Index (PSQI) evaluates sleep patterns and quality across seven subcomponents, providing valuable insights into sleep-related functioning [9]. Quality of life, when measured by tools such as the SF-36, offers a broad perspective across physical health, mental health, and social and emotional role domains [10, 11].

Previous literature indicates that in fields with more defined employment opportunities after graduation (e.g., medicine or other health professions), lower levels of future anxiety among students may contribute positively to sleep quality

and overall health perceptions [12]. In contrast, in fields with greater uncertainty in job prospects (e.g., humanities and social sciences), higher anxiety levels have been associated with poorer sleep quality and lower quality of life [13].

This study aims to examine in depth the differences in sleep quality, future anxiety, and quality of life between students of the Faculty of Health Sciences and the Faculty of Literature. In doing so, it seeks to address a gap in prior research—which has predominantly focused on medical students—by shedding light on students from non-medical disciplines [14].

Material and Methods

Study Design and Sample

This research was designed as a cross-sectional survey. The sample consisted of 200 undergraduate students ($n = 100$ from each faculty) enrolled in the Faculty of Health Sciences and the Faculty of Literature (Humanities) at Mardin Artuklu University, Turkey. Participation was voluntary. Ethical approval was obtained from the local ethics committee of Mardin Artuklu University (Approval Date/No: 06.04.2022/2022-7) prior to data collection, and informed consent was provided by all participants in accordance with the Declaration of Helsinki.

Instruments

A sociodemographic questionnaire collected information on age, gender, marital status, monthly income, and related background variables. Sleep quality was assessed using the

Pittsburgh Sleep Quality Index (PSQI) [9]. Future anxiety levels were measured with Zaleski's Future Anxiety Scale (FAS) [7, 8], where higher scores indicate more intense worry about the future. Overall quality of life was evaluated using the SF-36 Health Survey, which covers multiple domains including physical functioning, social functioning, role limitations (physical and emotional), mental health, vitality, bodily pain, and general health perception [10, 11].

Statistical Analysis

Data were collected mid-semester via in-person paper surveys administered in classroom settings. Completed surveys were entered into SPSS for analysis. Descriptive statistics (means, standard deviations, and percentages) were calculated for all variables. Independent sample t-tests were used to compare mean scores between the two student groups, and chi-square tests were applied for categorical comparisons (e.g., gender distribution between faculties). Pearson correlation analysis was performed to examine the relationships between future anxiety scores, PSQI scores, and SF-36 quality of life scores across the whole sample. A two-tailed p-value < 0.05 was considered statistically significant for all tests.

Results

Sociodemographic Findings

There were no statistically significant differences between Health Sciences and Literature students in age, gender, marital status, or monthly income ($p > 0.05$ for all; Table 1). Thus, the two groups were comparable in basic sociodemographic characteristics.

Sleep Quality

Students in the Faculty of Health Sciences had a significantly lower PSQI global score (indicating better overall sleep quality) compared to students in the Faculty of Literature (Health Sciences: 4.50 ± 2.05 ; Literature: 5.40 ± 2.30 ; $p = 0.007$). This difference suggests notably better sleep quality in the Health Sciences group. Among the PSQI subcomponents,

the largest group difference was observed in the "Daytime Dysfunction" subscore, which was lower (more favorable) in Health Sciences students ($p < 0.001$). In contrast, no significant group differences were found in some other PSQI subcomponents (e.g., Sleep Latency, Sleep Disturbances, Use of Sleep Medication; $p > 0.05$ for each) (Table 2).

Future Anxiety

Students in the Faculty of Literature scored significantly higher on the future anxiety than those in the Faculty of Health Sciences (Health Sciences: 41.2 ± 7.5 ; Literature: 44.0 ± 8.2 ; $p = 0.03$). This finding suggests that uncertainty regarding post-graduate job opportunities may be elevating anxiety levels in the Literature group (Table 3).

Quality of Life

On the SF-36 quality of life survey, Health Sciences students had higher mean scores than Literature students on most subdomains, including Social Functioning, Role-Physical, Mental Health, Vitality (energy), Bodily Pain, and General Health perception ($p < 0.05$ for each) (Table 4). However, there were no significant differences between the groups in the Physical Functioning domain ($p = 0.17$) or the Role-Emotional domain ($p = 0.07$). These exceptions suggest that certain aspects of quality of life (particularly physical capabilities and role limitations due to emotional issues) were similar between the two groups.

Correlation Analyses

The relationships among sleep quality, future anxiety, and quality of life are summarized in Table 5. As sleep quality worsened (higher PSQI scores), future anxiety tended to increase ($r = 0.28$, $p < 0.01$) and quality of life tended to decrease ($r = -0.36$, $p < 0.01$). Likewise, higher future anxiety was associated with lower quality of life ($r = -0.21$, $p < 0.05$). These findings indicate that students' psychological well-being and physical health status are closely interrelated: those who slept poorly were generally more anxious about the future and reported a lower quality of life.

Table 1. Sociodemographic Characteristics of Participants

Variable	Health Fac. (n=100)	Literature Fac. (n=100)	Total (n=200)	Test Statistic ¹	p-value
Age (Mean $\pm$ SD)	21.4 $\pm$ 1.6	21.6 $\pm$ 1.5	21.5 $\pm$ 1.55	$t = -0.79$	0.43
Gender				$\chi^2 = 0.29$	0.59
Female (n, %)	58 (58%)	62 (62%)	120 (60%)		
Male (n, %)	42 (42%)	38 (38%)	80 (40%)		
Marital Status				$\chi^2 = 1.05$	0.31
Single (n, %)	93 (93%)	90 (90%)	183 (91,5%)		
Married (n, %)	7 (7%)	10 (10%)	17 (8,5%)		
Monthly Income (₺)	3.500 $\pm$ 750	3.450 $\pm$ 780	3.475 $\pm$ 765	$t = 0.49$	0.62

¹ t-test for Age and Income; chi-square test for Gender and Marital Status.

Table 2. Comparison of PSQI Global and Subcomponent Scores

PSQI Subcomponents	Health Fac. (n=100) (Mean $\pm$ SD)	Literature Fac. (n=100) (Mean $\pm$ SD)	t (df=198)	p
Global Score	4.50 $\pm$ 2.05	5.40 $\pm$ 2.30	-2.73	0.007
Subjective Sleep Quality	0.78 $\pm$ 0.48	1.00 $\pm$ 0.50	-3.09	0.002
Sleep Latency	0.85 $\pm$ 0.40	0.92 $\pm$ 0.44	-1.15	0.25
Sleep Duration	0.72 $\pm$ 0.35	0.86 $\pm$ 0.50	-2.03	0.04
Sleep Efficiency	0.52 $\pm$ 0.25	0.60 $\pm$ 0.30	-1.98	0.05
Sleep Disturbances	1.10 $\pm$ 0.55	1.18 $\pm$ 0.58	-0.98	0.33
Use of Sleep Medication	0.11 $\pm$ 0.14	0.14 $\pm$ 0.20	-1.25	0.21
Daytime Dysfunction	0.42 $\pm$ 0.25	0.70 $\pm$ 0.40	-5.36	<0,001

Table 3. Comparison of Future Anxiety Total Scores

Future Anxiety	Health Fac. (n=100) (Mean $\pm$ SD)	Literature Fac. (n=100) (Mean $\pm$ SD)	t (df=198)	p
Total Score	41.2 $\pm$ 7.5	44.0 $\pm$ 8.2	-2.19	0.03

Table 4. Comparison of SF-36 Quality of Life Subdomain Scores

Subdomain	Health Fac. (n=100) (Mean $\pm$ SD)	Literature Fac. (n=100) (Mean $\pm$ SD)	t (df=198)	P
Physical Function	86.0 $\pm$ 8.5	84.2 $\pm$ 9.2	1.36	0.17
Social Function	81.2 $\pm$ 9.0	77.0 $\pm$ 8.8	3.26	0.001
Physical Role	84.0 $\pm$ 7.0	80.5 $\pm$ 8.5	2.90	0.004
Emotional Role	76.0 $\pm$ 9.0	73.5 $\pm$ 8.8	1.84	0.07
Mental Health	79.5 $\pm$ 6.8	76.8 $\pm$ 7.5	2.59	0.01
Energy/Vitality	74.5 $\pm$ 8.0	71.8 $\pm$ 8.6	2.26	0.02
Bodily Pain	85.0 $\pm$ 8.2	82.0 $\pm$ 9.0	2.14	0.03
General Health	77.5 $\pm$ 7.2	74.0 $\pm$ 7.0	3.24	0.001

Table 5. Correlations between PSQI, Future Anxiety, and Quality of Life

Variable	1. PSQI Total	2. Future Anxiety	3. Quality of Life
1. PSQI Total	1	r = 0.28**	r = -0.36**
2. Future Anxiety	r = 0.28**	1	r = -0.21*
3. Quality of Life	r = -0.36**	r = -0.21*	1
*p<.05; **p<.01			

Discussion

The primary aim of this study was to compare sleep quality, future anxiety, and quality of life between Health Sciences and Literature students within the context of career-related uncertainty. Overall, the findings indicate that Health Sciences students have lower future anxiety, better sleep quality, and higher quality of life compared to Literature students.

Firstly, the sleep quality results support patterns observed in previous research. For example, Lund et al. [5] observed that students in health-related fields (such as medicine and nursing) may achieve better sleep quality thanks to more structured daily schedules and a sense of "career certainty." In line with that, our study found that Health Sciences students had advantages in overall PSQI scores, particularly in the Daytime Dysfunction component. Conversely, the higher PSQI scores (indicating poorer sleep) among Literature students are consistent with the view that uncertain career prospects and academic stress

can adversely affect sleep quality. Prior studies have similarly shown that elevated perceived stress in university students is associated with reduced sleep duration and quality [4].

A similar pattern emerged in the future anxiety findings. In our application of Zaleski's scale, the higher anxiety scores among Literature Faculty students may be linked to the lack of clear job opportunities or uncertain working conditions after graduation. Indeed, Morsünbül's Turkish adaptation of this scale demonstrated that future anxiety in young adults is closely related to career planning and job security perceptions [7]. The significant difference in future anxiety observed in our study (p = 0.03) suggests that field of study can influence students' outlook: those in less career-secure fields experience greater anxiety about the future. It is possible that certain personal and environmental factors (e.g., familial support, personality traits) might buffer some students' anxiety levels, even in the face of career uncertainty, which could be an avenue for further research.



Regarding quality of life, Health Sciences students scored higher on many SF-36 subdomains (such as Social Functioning, Mental Health, Vitality, and General Health). As Dyrbye et al. [2] and the classic stress-coping model by Lazarus and Folkman [15] have highlighted, having more predictable career expectations can support better stress-coping skills and, in turn, better well-being. In our study, the lower social functioning and mental health scores in the Literature Faculty group suggest that high anxiety and stress levels may be manifesting in their social interactions and emotional well-being. The lack of significant differences in the Physical Functioning and Role-Emotional domains implies that factors such as individual lifestyle, coping ability, and social support might play a role in moderating these particular outcomes. Similarly, a comparative study by Wielewska et al. [16] found that variations in personality and self-regulation abilities can significantly impact student stress levels and quality of life, potentially explaining some of the differences observed between faculties.

One of the most noteworthy findings of this study is the interconnection among the key variables. The concurrent deterioration of sleep quality alongside rising future anxiety and declining quality of life — as well as the inverse relationship between future anxiety and life quality — demonstrates that university students exist within a complex network of interrelated factors. These results support Lazarus's transactional stress-coping model [15], which posits strong interactions between psychosocial stressors and health outcomes. Furthermore, as noted by Park et al. [17], a lack of effective self-regulation and stress-management skills in students can directly contribute to higher anxiety and poorer sleep quality. Likewise, a longitudinal study by Zou et al. [18] found that poorer sleep quality was significantly associated with subsequent mental health problems in college students, reinforcing this multidimensional interaction. In Turkey, a recent study during the COVID-19 pandemic demonstrated a strong negative correlation between sleep quality and psychological well-being in students [19], which aligns with our correlation findings.

Overall, our findings reflect the significant impact of career uncertainty and anxiety on university students' sleep patterns and quality of life, paralleling the results of prior studies. The relatively lower anxiety and better sleep and life quality observed in Health Sciences students present an encouraging contrast to the higher anxiety and comparatively poorer sleep and life quality of Literature students. This discrepancy likely reflects the strain of post-graduation employment uncertainties on young adults in the humanities. In order to safeguard and improve students' well-

being, it is important that individual risk factors be considered alongside differences between fields of study.

It is anticipated that supportive interventions provided by university career centers and counseling units — such as career guidance services, stress management workshops, and sleep hygiene education programs — can play an effective role in reducing students' anxiety levels and enhancing their quality of life [20, 21]. Indeed, even short-term educational programs on healthy sleep habits have been shown to improve sleep quality and reduce worry in student populations [20]. Likewise, effective career counseling and planning resources may yield positive effects on students' well-being [21]. In this respect, it is important to develop multifaceted, preventive programs that address faculty-specific risks and help students manage future anxiety, thereby improving their overall quality of life [14].

Conclusion

Sociodemographic Parity: Students from both faculties were similar in age, gender, and socioeconomic background, ensuring comparability between the groups.

Sleep Quality: Health Sciences students exhibited better overall sleep quality than Literature students, with particularly large differences in the PSQI Daytime Dysfunction component (favoring the Health Sciences group).

Future Anxiety: Literature Faculty students reported significantly higher future anxiety scores than Health Sciences students.

Quality of Life: Health Sciences students scored higher in several quality of life domains (social functioning, mental health, vitality, bodily pain, general health perception), whereas no significant differences were observed in a few domains (physical functioning, role-emotional).

Correlations: As sleep quality worsens, future anxiety tends to increase and quality of life tends to decrease. This indicates that students' psychological health and physical health are closely linked.

In summary, our findings suggest that career-related uncertainty and anxiety can substantially affect university students' sleep and quality of life. Students in fields with more assured career paths (like health sciences) tend to fare better in these aspects, while those in fields with greater uncertainty show elevated anxiety and associated detriments in sleep and quality of life. Accordingly, we recommend that university-level interventions — including targeted career counseling, stress management training, and sleep health education — be implemented to address faculty-specific risk factors and to improve students' coping skills, sleep habits, and career planning abilities.

Ethics Approval

The study protocol was approved by the Ethics Committee of Mardin Artuklu University, and all participants provided informed consent prior to participation (Approval No. 2022-7, dated April 6, 2022).

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Authors Contributions

Concept – SD; Design – SD, ND; Supervision – SD; Materials – ND, YY; Data Collection and/or Processing – ND, YY; Analysis and/or Interpretation – SD; Literature Search – ND; Writing – SD; Critical Review – SD, ND, YY.

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