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Assessment of Sleep Stress Level and Time Management in Final Year University Students

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Abstract

Objectives: The purpose of the study is to determine the sleep qualities, time management skills and stress levels of final-year university students**.**
Material and Method: 330 final-year university students from Turkey participated to the study. Pittsburgh Sleep Quality Scale was used to evaluate sleep quality, The Stress Coping Scale was used to evaluate stress levels, and Time Management Questionnaire was used to examine time management of the students.
Results: According to the analysis results, no statistically significant relationship was found between Pittsburgh Sleep Quality Scale, The Stress Coping Scale, Time Management Questionnaire ($p>0.05$). Also, sleep quality, stress levels and time management skills were not affected by gender, age, living environment and university department of the students. There was no statistically significant difference between these parameters ($p>0.05$). However, a significant correlation was found between some items of the scales.
Discussion: It is planned to continue this type of researches on university students by taking into account the meaningful correlation results.
Key Words: Sleep Quality, Stress Level, Time Management, University students

Introduction

The final semester of the university is a challenging period for students. In this difficult period, students' daily life activities are affected by academic achievements, anxieties about future and new beginnings and expectations. Purpose of the study; to investigate the relationship of sleep quality, stress coping and time management skills to daily life activities in university students facing these negativities. Within this research, communication was achieved with 376 students who receive university education in Istanbul, Biruni and Çukurova University. However, 330 participants were included in the study as they met the inclusion criteria (180 female and 150 male participants).

Sleep Quality

Good sleep quality is very important for everyday life. Sleep is the most fundamental and inevitable daily life activity that affects people's quality of life and general health. Sleep is a concept that includes physiological, psychological and social dimensions (1). Most of our times in life are spent with sleeping . So it is essential to have a good sleep quality for a comfortable daily life.

Many physical, mental and environmental factors disrupt the quality and duration of

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sleep. (age, sex, illness, fatigue, environmental factors, lifestyle, drug use, emotional state) (2).

Stress

People; changes in certain periods of their lives. However, the most important changes, both biological and social, take place during adolescence and youth. Stress is a condition that disrupts and complicates the correspondence in communication with the individual's environment (3).

Stress sources can be classified as social and psychological phenomena, physical, mental, emotional and social development process, rapid changes in technology, and traumatic events in daily life, work or school. In the university period, many students are experiencing various difficulties and if they do not get up there is probably stress. Especially; exam periods can cause students to fail because of the stress. Energy level, positive thinking, problem solving ability, control perception, self-efficacy, belief, self perception, depressive tendencies, sociability, use of social support, gender, age, socio-economic status and personal characteristics; are variables that play a role in determining the stress coping behaviors of a person (4).

Time management

Time is the only source that can not be bought, accumulated and produced. It also can not be stopped like a machine. For this reason, it is the unique value that must be used in the best way in the life journey. We can define the time from birth to death as " time " (5,6).

According to Cowey, the quantity, quality and quality of time are important. In other words, what is how much time you spend on a job is not important, but how much you have achieved during that time. According to Jant, " time " is a unique resource for everyone to have the same amount every day. According to Lakein, time management is the planning and scheduling of the necessary tasks by defining the needs and preparing the objectives to achieve these needs. (7)

Managing time well is an important life skill. A person who can not control his / her time can not control his / her life (8). The person should take control of the use of time by acting with the consciousness that he is responsible for his/her life. The fact that people have the ability to use time in a productive way means that they have the ability to use and manage the time correctly (9).

Time is a "basic" resource. Time saving is to save money from life. It does not accumulate like money, it is not used when it is stored and desired like raw material. It is very important that the time, which is such a valuable resource, can be used effectively and productively. If time is not used effectively, both money and productivity will be lost. Work is human activities and efforts. Therefore, time management is a systematic process used in the analysis of a business (10).

Material and Methods

330 final-year students from Biruni University, Istanbul University and Çukurova University participated to the study. Sociodemographic characteristics (name, surname, age, sex, place of residence and studying university and department) were recorded. Pittsburgh Sleep Quality Scale for assessment of sleep quality, The Stress Coping Scale for stress assessment, and Time Management Questionnaire for time management evaluation were used in the study. Pearson Correlation Analysis Method has been

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applied to assess the data with SPSS 15.0 programme.

Pittsburgh Sleep Quality Scale

The Pittsburgh Sleep Quality Index was developed by Buysse et al. in 1989 for the purpose of identifying good sleep and bad sleep, giving a quantitative measure of sleep quality. There are a total of 24 questions on the scale. 19 of these questions are self-assessment questions. 5 of them are answered by the close ones.

Self-assessment questions include different items about sleep quality. These are for determining the sleep latency, the duration of sleep and the frequency and severity of some problems related to sleep. Every item is evaluated between 0-3 points. There are 18 points scored and grouped into 7 component points. Some of these components consist of a single substance (11).

Some are formed by grouping a few items. These components include; subjective sleep quality, sleep duration, sleep delay, usual sleep activity, sleep disturbance, use of sleep medicine, daytime dysfunction. Each item is evaluated between 0-3 points. The sum of these 7 component scores gives the total index score. The total score is between 0-21 points. The higher the total score is, the better the sleep quality is. The higher the overall score is, the worse the sleep quality is. Pittsburgh Sleep Quality Index study regarding the validity and reliability in Turkey by Ağargün et al in 1996 (12).

The Stress Coping Scale

This scale is a measure of the coping mechanisms associated with the indications of depression, loneliness and psychosomatic problems, which were generated by Folkman and Lazarus' 1980s Ways of Coping Inventory (13). The Stress Coping Methodology Scale is a shorter measure prepared by Nesrin H. Şahin and Ayşegül Durak for use in university students in 1995. It consists of 30 sub-parameters. The 'Optimistic Approach' consists of 5 subparameters as 'Self-assured Approach', 'Helpless Approach', 'Thinning Approach' and 'Social Supporting Approach' (14).

Time Management Questionnaire

The quantitative data of the study were collected by means of a "Time Methodology Inventory" consisting of 27 items developed by Britton and Tresser (1991) (15) and adapted to Turkish by Alay and Koçak (2002). Time Planning, Time Attitudes and Time Consuming. The Time Planning sub-parameters consist of 16 questions, the Time Attitudes sub-parameters consist of 7 questions, and the Time Consuming sub-parameters consist of 4 questions (16).

Statistical analysis

All data are presented as the mean±SD. Statistical analyses were performed using Pearson Correlation Coefficient Method. $p \leq 0.05$ was accepted as statistically significant. All statistical analyses were performed with the SPSS Version 15.0 statistical software package (SPSS Corporation).

Results

330 final-year university students (180 female, 150 male) participated to the study. The average age of the students was 21.78± 1.43. The scores' mean of Pittsburgh Sleep Quality Scale was 34.84±6.61, range of scores was between 20-60. The Stress Coping Scale scores' mean was 66.96±22.9 and range of scores was between 30-133. Time Management Questionnaire scores'mean was 67.3±18.9 and range of scores was between 30-124.

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Table 1. Rating of the Scales

Scales(N:330)	Mean±SD	Min-Max
Pittsburgh Sleep Quality Scale	34.84±6.61	20-60
The Stress Coping Scale	66.96±22.9	30-133
Time Management Questionnaire	67.3±18.9	30-124

According to the analysis results, no statistically significant relationship was found between Pittsburgh Sleep Quality Scale, The Stress Coping Scale, Time Management Questionnaire ($p>0.05$). However, a significant correlation was found between some items of the scales. The Stress Coping Scale says 'I try to make the best decision by evaluating the events.' Time Management Questionnaire has a significant relationship with 4 parameters ($p<0.05$).

Table 2. Correlations of Time Management Questionnaire and The Coping with Stress Scale

		The Coping with Stress Scale
Time Management Questionnaire		'I try to make the best decision by evaluating the events
Time Planning (Short and Long Term Planning): Do you determine your priorities and obey them?	**r**	0.129*
	p	0.020
Time Planning (Short and Long Term Planning): Do you do things about you without making a plan in advance?	**r**	0.161**
	p	0.004
Time Attitudes: Can you use your time as a constructor?	**r**	0.231**
	p	0.000
Time Attitudes: Can you make small decisions quickly?	**r**	0.160**
	p	0.004

r: Pearson Correlation

The Time Attitudes Index of Time Management Questionnaire has a significant relationship with 2 items of Pittsburgh Sleep Quality Scale ($p<0.05$). For example, The Time Attitudes Index says, "Do you need to develop yourself in planning of your time?" There is significant relationship between the item of Pittsburgh Sleep Quality Scale that is 'I slept badly in the last month because (other reasons)' ($p<0.05$).

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Table 3. Correlations of Time Management Questionnaire and Pittsburgh Sleep Quality Scale

N: 330		Pittsburgh Sleep Quality Scale
Time Management Questionnaire		I slept badly in the last month because (other reasons)
Time Attidudes: Do you need to develop yourself in the planning of your time?	**r**	0.163**
	p	0.003
Time Attidudes: Do you feel yourself planning your own time in general?	**r**	0.134*
	p	0.017

**Correlation is significant at the 0.01
* Correlation is significant at the 0.05

Table 4. Correlations of Time Management Questionnaire and Pittsburgh Sleep Quality Scale

N: 330		Pittsburgh Sleep Quality Scale
Time Management Questionnaire		How often did you take reluctance in the last month?
Time Attidudes: Often you think you can achieve all of your goals in the week you are given?	**r**	0.018*
	p	0.035

**Correlation is significant at the 0.01
* Correlation is significant at the 0.05

The Time Consuming Index of Time Management Questionnaire says, "On a normal school day, do you spend more time on school work than on your own business?" and "Will you still work on it the night before the last day of the important school assignment?". These parameters have no significant relationship with Pittsburgh Sleep Quality Scale ($p>0.05$).

The Time Planning Index of Time Management Questionnaire "Do you draw files / photocopies so that the course notes may be in the future even if it is not necessary now?" and "Would you repeat your lecture notes regularly, even if you have not taken the exam recently?" There is no significant relationship between these parameters and the Stress Coping Scale($p>0.05$).

Time Management Questionnaire says "Do you continue habits or activities that do not benefit?" There is a significant relationship between the 17 items of the Stress Coping Scale ($p<0.05$).

Also; sleep quality, stress levels anad time management skills was not affected by gender, age, living environment and university department of the students. There was no statistically significant difference between these parameters ($p>0.05$).

Discussion

University students in the last semester in Turkey, during the examination period training, career planning, homework,

activities of daily living, duties and fulfilling their responsibilities and success in activity; sleep quality, time management and stress are thought to have a great proposition. There is no study about stress management strategies, sleep quality and time management skills together in the literature.

Pittsburgh Sleep Quality Scale studies have produced different results. Ling - ling et al. (2003) studied sleep disturbances, gender and year differences; sleep difficulties and sleep problems are very common in university students. (17) However, there was no significant relationship between sleep quality and gender parameters in our study.

It is seen that similar results have been observed in studies realized by the Stress Relief Styles scale. However, as in other studies, there was no significant relationship between stress and age and gender parameters in our study. It has been shown that the perceived stress is low at the end of the study, when senior students mostly responded to all the questions with "Self-confident approach" and "Optimistic approach". In a similar study, it was determined that the level of stress perceived by university students was moderate and high. It is expected that senior-level university students should start a new life, to gain identity and increase their responsibilities (18).

It has been determined that there are similar and different results with studies conducted with time management inventory. As a result of the study by Eldeleklioğlu (2008), "The study of time management skills of the adolescents in terms of anxiety, age and gender variables", a meaningful difference was found in both general time management and "time planning and time consuming subscales of general time management". There was no significant difference in the "time attitudes" sub-dimension according to gender.(19)

Erdul (2005) conducted a study titled "The Relationship Between Time Management Skills and Anxiety Levels of University Students", and found that the time management skills of university students were high. It has been stated that time management skills and time management have significant differences in terms of sex in the subscales of "time planning" and "time consuming". In the subscales of time attitudes, there was no significant difference according to sex. (20) However, in our study, there was no significant relationship between the age and gender parameters of time management in common with the studies in the literature.

From a literary perspective, there was no study of these three evaluations. In 2017, the Pittsburgh Sleep Quality Scale was administered in Brazil to determine subjective sleep qualities at various stages in the training of medical students, and medical students were found to be more exposed to sleep disturbances than other college students. However, two important parameters such as stress and time management are not included in this study. He did a research on the fisherman and undergraduate students studying at different faculties of Marmara University. In his research, he investigated the relationship between university students' negative self-esteem levels and their ego status with their ways of coping with stress. According to the results of the research, using self-confident approach, optimistic approach and social support; the way students cope with stress and the degree of negative automatic thinking decreased; along with the

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desperate and submissive approach has also been found to increase (21,22).

While the effective management of the increasingly important time in reaching the individual's professional achievements and goals is carried out chronologically at the beginning with only daily planning and listing actions, the ABC approach in time management (determination of priorities and values), time management 101 approach (skills) Approaches such as "leave yourself to the stream" approach (harmony and natural rhythms) and healing approach (self-conscious) have been developed (23).

When we review the literature, it is seen that most of the studies are aimed at evaluating the time management skills of university students.

In the 'time planning' section, there are questions that measures the ability of the person who answered the inventory in short and long term planning in time management. In the 'time attitudes' section, it is seen that there is a question about what the inventory respondents are doing about time management. In the 'time consuming' section, questions about the activities that spend the time on the negative spoiler are asked.

The 'frequently' response in the time planning section of this study means that the short and long term planning skills of the university students are moderate and high. The majority of the items in the time attitudes section indicated that the responses were mostly moderate and high in the time management skills of the individuals. The 'occasional' response to the number of items marked in the time-consuming section shows that individuals spend their time at a low level.

Conclusion

These research results show that; although there was no statistical difference between the time management, the ability to cope with stress and sleep quality parameters in university students, it was observed that there was a strong relationship between certain items of these scales. In this sense, more extensive researches should be carried out on this subject.

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