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ORIGINAL ARTICLE

The Relationship Between Time Management Skills and Academic Achievements of Nursing Students During the COVID-19 Pandemic

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Abstract

Objective: This study aims to determine the relationship between the time management skills of nursing students and their academic achievements during the COVID-19 pandemic.

Method: The population of this descriptive study consisted of private University Health Sciences Faculty Nursing Department 2021–2022 Academic Year Fall Semester second year ($n=106$), third year ($n=72$), and fourth year ($n=88$) students ($n=266$). No sample selection was made in the study and the data were obtained from 182 students. The data of the study were collected online using the Participant Introduction Form and Time Management Questionnaire. Data analysis was performed using Statistical Package for Social Sciences 18.0 package software.

Results: The mean score of the students on the time management inventory was found to be 90.93 ± 11.67. A statistically significant difference was found between the overall Time Management Questionnaire mean score and the variables of "presence of time-wasting factor during the distance education period" ($p=.16$) and "duration of social media use" ($p=.13$, $p < .05$). A statistical significance was found between the mean scores of the time attitudes subdimension and "presence of time-wasting factor during the distance education period" ($p=.001$) and "the duration of social media use" ($p=.010$, $p < .05$).

Conclusion: The students' time management skills were determined to be at a "high" level, the factors that caused time loss during the distance education period and the duration of social media use affected the time management skills, and the time management skills did not affect academic success.

Keywords: Academic achievement, COVID-19 pandemic, nursing students, time management

Introduction

COVID-19, which emerged in Wuhan, China, in December 2019 and was declared a pandemic by the World Health Organization in March as a result of spreading to the whole world in a short time, is a respiratory virus caused by a new coronavirus called severe acute respiratory syndrome coronavirus 2 (Akyüz et al., 2020). In addition to many negative consequences of COVID-19 in terms of health, economic, and social aspects, there are also negative consequences in the field of education. Due to the pandemic, distance education has become the only remedy worldwide (Amir et al., 2020), and students have been affected by the suspension of face-to-face education in schools (Çakın & Akyavuz, 2020). Nursing education has also been affected by this process, and social distancing and quarantine measures have changed the way students learn. Nursing education also started to be continued through distance education, and face-to-face theoretical courses and laboratory and student clinical practices were canceled (Durmaz et al., 2016).

Students experience a new learning environment with the help of technology and try to adapt to this process (Temizkan Sekizler et al., 2021). Effective time management skills, which are the source of students' aim to be academically successful, have been affected by the fact that the courses are held distantly and that they are constantly in the home environment. Time management skill is defined as the individual's self-control as well as the organization of the activities carried out, and it is widely accepted that the reason for the inefficiency of the activities carried out by the individual is the inability to manage time effectively (Kibar et al., 2014). To apply time management effectively, it is not enough to know how to use the time, it is also necessary to know the problems and causes that may arise in the current process (Paudel, 2021). In a previous study, unstable

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internet connection, the extra financial burden to increase internet quota, difficulty in focusing, and ineffective time management were determined as the problems encountered during the distance education process (Tektaş & Tektaş, 2010).

It is stated that time management skills are one of the most important characteristics that a student should have for the distance education process to be effective and successful (United Nations, 2010). In this regard, it does not seem possible for students who cannot use time efficiently and manage it correctly to be successful (World Health Organization, 2020). In the study by Akyüz et al. (2020) titled "Relationship of time management skills and academic achievement," nursing students who have high time management skills and have control over how they use their time are determined to be more successful academically (Akyüz et al., 2020). Karatepe et al. (2020) and the time management skills of nursing students are examined and determined that there was a significant difference between the socio-demographic characteristics of the students and the Time Management Scale (Karatepe et al., 2020). Karaçor et al (2017) examined the effect of personality traits of vocational school students on their time management skills and determined that personality traits affect time management skill levels (Karaçor et al., 2017). Uysal et al. (2017) examined the time management skills and life satisfaction of nursing department students and found that there was a significant difference between the time wasters' sub-dimension of the Time Management Questionnaire and the students' gender, social activities, grade level, and place of residence (Uysal et al., 2017). In the literature, there is no study examining the relationship between the time management skills of nursing students and their academic success during the COVID-19 pandemic in Northern Cyprus. This study will help students manage their time more effectively and contribute to the literature by determining the relationship between time management skills and academic achievement of nursing students during the COVID-19 pandemic. This study aimed to determine the relationship between the time management skills of nursing students and their academic achievements during the COVID-19 pandemic.

Research Questions

1) What are the time management skills of nursing students during the COVID-19 pandemic?
2) Is there a relationship between the time management skills and academic success of nursing students during the COVID-19 pandemic?
3) Is there a relationship between the introductory characteristics of nursing students and their academic success during the COVID-19 pandemic?

Main Points

- Students' time management skills are at a "high" level.
- The factors that cause time loss during the distance education period and the duration of social media use affect the students' time management skills.
- Students' time management skills are not affected by their academic achievement.

Material and Methods

Study Design

This study was designed as a descriptive study.

Study Sampling and Implementation of the Study

The population of the study consisted of private University Health Sciences Faculty Nursing Department 2021-2022 Academic Year Fall Semester second year ($n=106$), third year ($n=72$), and fourth year ($n=88$) students ($N=266$). In the study, no sample selection was made and the data were obtained from 182 students who accepted to participate in the study (Figure 1).

The data of the study were obtained by sharing the online questionnaire form during the basic lesson time of the students using the Microsoft Teams program.

Informed consent form, participant introduction form, and Time Management Questionnaire were converted into online questionnaires in Google Forms before starting the study. After the necessary ethics committee approval was obtained, the data collection phase was started. Online questionnaires were shared in students' core course teams on Microsoft Teams. Questionnaires were continued to be submitted until the calculated sample size was reached. Filled-out questionnaires were first transferred to Microsoft Excel and then to Statistical Package for Social Sciences and were analyzed. Considering the number of scale items, each participant was allocated approximately 15 minutes for the study. To protect the privacy of the participants, the "collect e-mail addresses" tab in the online questionnaires was deactivated and the questionnaires were anonymized.

Inclusion Criteria

- The inclusion criteria of the study are to study at Nursing Department in the 2021–2022 Academic Year Fall Semester and to agree to participate in the study.

Exclusion Criterion

- Participants who did not meet the inclusion criteria were excluded from the study.
- The reason why first-year nursing students did not have the last semester grade point average, which was accepted as a success criterion in the research, was excluded from the sample.

Data Collection Tools

Study data were collected by using the participant introduction form, prepared by the researchers in line with the literature, and Time Management Questionnaire.

Participant Introduction Form: The participant introduction form was developed by the researchers in light of the literature. The 10-item form includes the introductory characteristics (gender, class, final grade point average (GPA), etc.) that are considered to affect students' time management skills (Akyüz et al., 2020; Durmaz et al., 2016; Tektaş & Tektaş, 2010). The GPA specified in the 4-point system in the transcripts of the students for the last semester

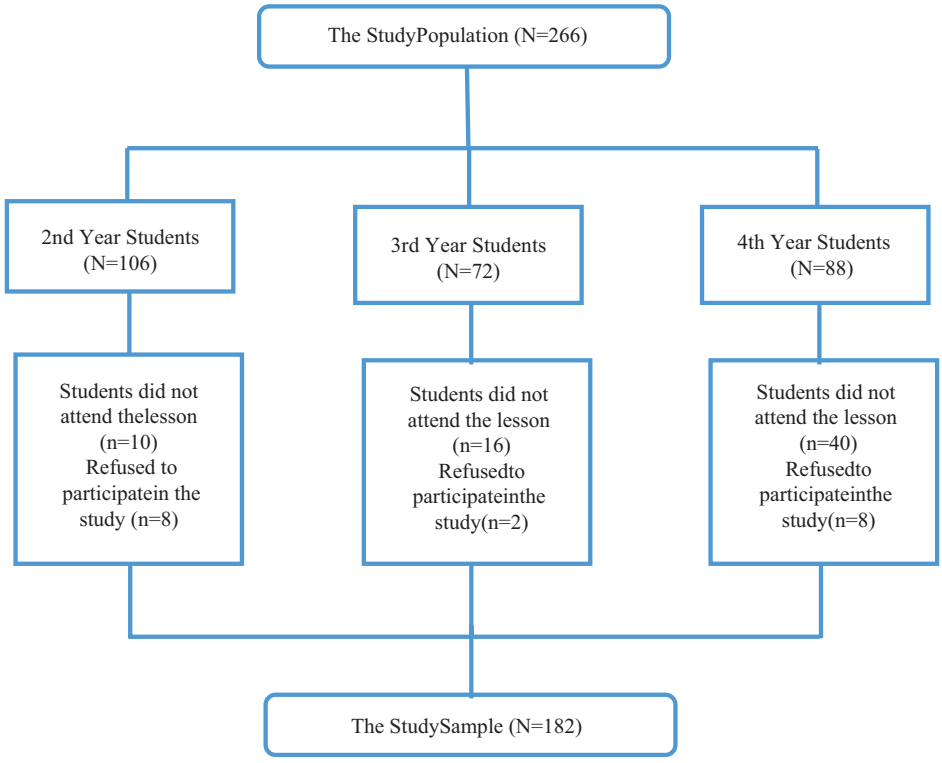

Figure 1.
Diagram of Sampling and Participation in the Study.

was accepted as the academic success criterion in this study.

Time Management Questionnaire: Time Management Questionnaire (TMQ) was developed and the Turkish validity–reliability study was conducted by Alay and Koçak (2002). The TMQ consists of 27 items and 3 sub-dimensions as "Time Planning," "Time Attitudes," and "Time Wasters." The "Time Planning" sub-dimension includes 16 items, the "Time Attitudes" sub-dimension includes 7 items, and the "Time Wasters" sub-dimension includes 4 items. The 16th item in the "Time Planning" sub-dimension, the second, sixth, and seventh items in the "Time Attitudes" sub-dimension, and all the items in the "Time Wasters" sub-dimension are reverse scored. The TMQ items are rated on a 5-point Likert scale, ranging from "Always," "Often," "Sometimes," "Rarely," and "Never." The internal consistency coefficient of TMQ was calculated as ".88" for the "Time Planning" sub-dimension, ".66" for the "Time Attitudes" sub-dimension, ".47" for the "Time Wasters" sub-dimension, and ".80" for the overall scale. The sum of the scores from the three sub-dimensions gives the TMQ result. The maximum score that can be obtained from the TMQ is 135 and the minimum score is 27. A higher overall TMQ score reflects higher time management skills (Alay & Koçak, 2002).

Data Analysis

Data analysis was performed using the Statistical Package for Social Sciences 18.0 package software. In the analysis, categorical measurements are presented as numbers and percentages, and continuous ones are presented as mean and standard deviation in the tables. Kolmogorov–Smirnov test was used to determine the distribution normality of the data. Accordingly, the Mann–Whitney *U* test was used to compare differences between two independent groups, and the Kruskal–Wallis H test was used to compare differences between more than two groups. The post hoc Bonferroni test was used if statistical significance was determined in groups with more than two variables. The data were evaluated and interpreted at 95% CI, with a significance level of $p < .05$.

Ethical Approval

Ethical committee approval was received from the Ethics Committee of Eastern Mediterranean University, Board of Scientific Research and Publication Ethics (ETK00-2021-0083), verbal consent was obtained from the head of the nursing department of the university where the research was conducted, and permission to use the scale was obtained from the scale owner via e-mail.

Results

The TMQ total mean score of the students was determined as 90.93 ± 11.67. Time planning sub-dimension mean score was 54.41 ± 8.87, time attitudes sub-dimension mean score was 23.44 ± 3.12, and time wasters' sub-dimension mean score was 13.08 ± 3.38. According to these results, the general average of the students' time management can be interpreted as "high." The mean scores of all sub-dimensions were also "high" (Table 1).

Table 2 shows the descriptive characteristics of the students and the total and sub-dimension mean scores of the TMQ. Accordingly, it was determined that students who

Table 1.
Students' Time Management Questionnaire Overall Score and Sub-Factor Score Distributions (n = 182)

Time Management Questionnaire	Mean Score	SD	Min.	Max.
Time planning sub-dimension	54.41	8.87	32	75
Time attitudes sub-dimension	23.44	3.12	15	33
Time wasters' sub-dimension	13.08	3.38	4	20
Overall	90.93	11.67	62	119

Note: SD = standard deviation.

were female (91.30 ± 11.76), between the ages of 21 and 23 (91.48±11.27), in second grade (92.32 ± 12.12), had a GPA of 3.50 and above (91.86 ± 9.03), did not take the make-up exam during the distance education period (91.47 ± 12.18), interpreting his/her academic success in this period as moderate (91.97 ± 11.56), living alone in a house (97.00 ± 10.88), did not specify a time-creating factor (93.68 ± 12.27), and had Internet use between 5 and 10 minutes (103.00 ± 18.38) (highest score) had the highest total TMQ mean scores. A statistically significant difference was found between the TMQ total mean score and the "presence of a time-wasting factor during the distance education period" ($p = .16$) and "duration of social media use" ($p = .13$) variables ($p < .05$).

The groups with the highest mean in the time planning sub-dimension were male (55.18 ± 8.64), 27 years old and over (56.25 ± 9.34), third grade (54.77 ± 8.46), having a GPA between 2.00 and 2.49 (55.68 ± 9.14), did not take the make-up exam during the distance education period (54.84 ± 8.88), interpreting his/her academic success in this period as high (55.29 ± 8.81), living alone in a house (59.20 ± 9.62), who indicate a time-wasting factor (55.71 ± 9.34), and who used social media 5–10 minutes per day (62.50 ± 17.67) (highest score). No statistically significant difference was found between the overall mean score of the time planning sub-dimension and any variable ($p > .05$) (Table 2).

The time attitudes sub-dimension mean score of students who were female (23.67 ± 3.06), between the ages of 21 and 23 (23.53 ± 2.87), second grade (23.75 ± 3.29), having a GPA of 1.99 and below (24.16 ± 3.15), did take or did not take the make-up exam during the distance education period (23.44 ± 2.33, 23.44 ± 3.35, respectively), interpreting his/her academic success in this period as moderate (23.77 ± 3.13), living alone in a house (24.40 ± 1.94), who did not specify a time-wasting factor during the distance education period (24.34 ± 3.30), and who used social media 5–10 minutes per day (25.50 ± 2.12) (highest score) was found to be higher. A statistically significant difference was found between the time attitudes sub-dimension mean score and the "presence of a time-wasting factor during the distance education period" ($p = .001$) and "duration of social media use" ($p = .010$) variables ($p < .05$) (Table 2).

It was determined that the students who got the highest score from the time wasters' sub-dimension and avoided these factors were female (13.65 ± 3.43), between the ages of 18 and 20 (14.56 ± 3.61), second grade (14.00 ± 3.26), having a GPA of 3.50 and above (14.03 ± 2.61), did not take the make-up exam during the distance education period (13.18 ± 3.34), interpreting his/her academic success in this period as moderate (13.74 ± 3.22), living in a student dormitory with their friends (14.40 ± 2.81), did not indicate any time-wasting factor (13.62 ± 3.45), and used social media for 5–10 minutes per day (15.00 ± 1.41) (the highest score). A statistically significant difference was found between the time wasters' sub-dimension mean score and the gender ($p = .000$), age ($p = .025$), grade ($p = .001$), and duration of social media use ($p = .039$) variables (Table 2).

Table 3 shows the distribution of time-wasting factors during the distance education period and the scale score distributions. When the time-wasting factors of the students were compared, it was determined that the students with the "transportation" problem, which is one of the time-wasting factors, got a lower TMQ score (87.88 ± 8.26) compared to the students with other time-wasting factors and a statistically significant difference in time wasters' sub-dimension ($p < .017$). It was determined that the factor "watching TV series/movies on the internet" got the highest score (90.28 ± 11.47), but there was no statistical difference between the sub-dimensions ($p > .05$). It was found that there was a statistically significant difference between the social networking sites and the chat with friends' factors and the time attitudes sub-dimension ($p < .004$, $p < .018$). A statistically significant difference was determined between the routine housework factor and the TMQ total mean score ($p < .026$), time attitudes sub-dimension ($p < .008$), and time wasters' sub-dimension ($p < .034$). A statistical significance was found between the factor of working at the workplace and the time wasters' sub-dimension ($p < .024$).

Discussion

The findings of this study, which aim to determine the relationship between the time management skills and academic achievements of nursing students during the COVID-19 pandemic process, are discussed below.

The students' TMQ total mean score was determined as 90.93 ± 11.67 (Table 1). The lowest TMQ score was 62 and the highest score was 119. Time Management Questionnaire total mean score shows that the time management skills of the students are "high." The study by İz and Özen (2010) found TMQ total mean score as 76.7 ± 12.7, Ertuğ and Faydalı (2018) found TMQ total mean score of 87.75 ± 12.1, and Gündoğdu et al. (2020) found TMQ total mean score as 83.0 ± 16.4, and time management skills were found to be moderate (Ertuğ & Faydalı, 2018; Gündoğdu et al., 2020; İz & Özen, 2010). The TMQ total mean score determined in this study is higher than those stated in the literature. Based on this result, it can be concluded that the students of the nursing department are conscious of time management.

In the comparison made according to gender, it was determined that there was a statistically significant difference

Table 2.
Comparison of Students' Descriptive Characteristics and Time Management Questionnaire Score Distributions (n = 182)

Descriptive Characteristic	*n*	%	Overall Mean ± SD	Time Planning Mean ± SD	Time Attitudes Mean ± SD	Time Wasters Mean ± SD
Gender						
Female	116	63.7	91.30 ± 11.76	53.97 ± 3.98	23.67 ± 3.06	13.65 ± 3.43
Male	66	36.3	90.30 ± 11.58	55.18 ± 8.64	23.04 ± 3.22	12.07 ± 3.07
p			.389	.582	.114	.000*
Age						
18–20	23	12.6	90.65 ± 10.07	52.82 ± 7.33	23.26 ± 3.30	14.56 ± 3.61
21–23	120	65.9	91.48 ± 11.27	54.73 ± 8.93	23.53 ± 2.87	13.21 ± 3.02
24–26	31	17.0	88.93 ± 13.51	53.87 ± 9.63	23.32 ± 3.72	11.74 ± 4.06
27 and above	8	4.4	91.37 ± 15.58	56.25 ± 9.34	23.12 ± 4.22	12.00 ± 3.62
X^2			1.772	1.897	.509	9.360
p			.621	.594	.917	.025*
Bonferroni (post hoc), significant difference			No difference	No difference	No difference	1–3, *p* = .014
Grade						
Second	88	48.4	92.32 ± 12.12	54.57 ± 9.31	23.75 ± 3.29	14.00 ± 3.26
Third	54	29.7	90.92 ± 11.11	54.77 ± 8.46	23.35 ± 3.13	12.79 ± 2.68
Fourth	40	22.0	87.90 ± 11.11	53.55 ± 8.47	22.90 ± 2.68	11.45 ± 3.87
X^2			2.899	.342	1.783	14.549
p			.235	.843	.410	.001*
Bonferroni (post hoc), significant difference			No difference	No difference	No difference	1–3, *p* = .000
Grade point average (GPA)						
1.99 and below	12	6.6	89.08 ± 11.42	52.83 ± 8.61	24.16 ± 3.15	12.08 ± 3.36
2.00–2.49	16	8.8	91.37 ± 12.77	55.68 ± 9.14	23.68 ± 3.78	12.00 ± 2.92
2.50–2.99	46	25.3	90.06 ± 12.94	53.28 ± 9.94	23.60 ± 3.44	13.17 ± 3.34
3.00–3.49	78	42.9	91.29 ± 11.83	54.97 ± 8.78	23.28 ± 2.96	13.03 ± 3.72
3.50 and above	30	16.5	91.86 ± 9.03	54.63 ± 7.42	23.20 ± 2.74	14.03 ± 2.61
X^2			1.028	2.021	1.073	5.529
p			.906	.732	.899	.237
Take the make-up exam during the distance education period						
Yes	45	24.7	89.31 ± 9.92	53.08 ± 8.73	23.44 ± 2.33	12.77 ± 3.54
No	137	75.3	91.47 ± 12.18	54.84 ± 8.88	23.44 ± 3.35	13.18 ± 3.34
p			.244	.232	.887	.573
Interpreting his/her academic success in the distance education period						
Bad	27	14.8	87.22 ± 9.48	51.85 ± 8.07	23.11 ± 2.69	12.25 ± 2.52
Moderate	81	44.5	91.97 ± 11.56	54.45 ± 9.07	23.77 ± 3.13	13.74 ± 3.22
Good	74	40.7	91.16 ± 12.37	55.29 ± 8.81	23.20 ± 3.26	12.66 ± 3.73
X^2			4.373	3.287	2.138	6.040
p			.112	.193	.343	.055
Place/person living in distance education period						
At home with family	143	78.6	90.62 ± 11.60	54.30 ± 8.75	23.54 ± 3.18	12.78 ± 3.45
At home with friends	4	2.2	92.50 ± 7.85	55.00 ± 4.61	23.25 ± 2.06	14.25 ± 2.75
Alone at home	5	2.7	97.00 ± 10.88	59.20 ± 9.62	24.40 ± 1.94	13.40 ± 3.28
At home with friends	27	14.8	91.66 ± 12.41	54.37 ± 9.76	22.88 ± 3.09	14.40 ± 2.81
Alone in the dormitory	3	1.6	87.00 ± 17.77	51.33 ± 11.06	22.33 ± 4.04	13.33 ± 4.72
X^2			1.495	1.335	1.349	4.926
p			.828	.855	.853	.295
Presence of a time-wasting factor during the distance education period						
Yes	113	62.1	89.26 ± 11.02	53.61 ± 8.48	22.89 ± 2.88	12.75 ± 3.32
No	69	37.9	93.68 ± 12.27	55.71 ± 9.34	24.34 ± 3.30	13.62 ± 3.45
p			.016*	.193	.001*	.066
Social media usage time						
Between 5 and 10 minutes	2	1.1	103.00 ± 18.38	62.50 ± 17.67	25.50 ± 2.12	15.00 ± 1.41
Around 30 minutes	19	10.4	93.05 ± 13.07	55.15 ± 9.73	24.57 ± 4.12	13.31 ± 3.36
Around 1 hour	80	44.0	93.35 ± 10.34	55.60 ± 7.79	23.95 ± 2.97	13.80 ± 3.11
2 hours or more	81	44.5	87.76 ± 11.81	52.86 ± 9.30	22.62 ± 2.85	12.27 ± 3.54
X^2			10.779	3.789	11.285	8.383
p			.013*	.285	.010*	.039*
Bonferroni (post hoc), significant difference			3–4, *p* = .013	No difference	3–4, *p* = .040	3–4, *p* = .024

Note: SD = standard deviation, *= $p < 0.05$.

Table 3.
The Distribution of Time-Wasting Factors During the Distance Education Period and the Scale Score Distributions (n = 182)

Factor	n	%	General Mean ± SD	Time Planning Mean ± SD	Time Attitudes Mean ± SD	Time Wasters Mean ± SD
Social networking sites						
Yes	49	26.9	88.28 ± 11.26	52.83 ± 9.05	22.34 ± 2.84	13.10 ± 2.55
No	133	73.1				
p			.086	.302	.004*	.648
Chat with friends						
Yes	39	21.4	89.48 ± 8.89	54.17 ± 7.27	22.51 ± 2.70	12.79 ± 2.81
No	143	78.6				
p			.387	.967	.018*	.321
Watching TV series/movies on the internet						
Yes	46	25.3	90.28 ± 11.47	54.06 ± 8.93	22.93 ± 2.97	13.28 ± 2.38
No	136	74.7				
p			.706	.956	.178	.952
Watching TV						
Yes	26	14.3	89.30 ± 10.34	53.23 ± 8.51	22.84 ± 3.09	13.23 ± 2.19
No	156	85.7				
p			.564	.707	.207	.897
Transportation problems						
Yes	9	4.9	87.88 ± 8.26	55.00 ± 9.61	22.11 ± 1.96	10.77 ± 2.43
No	173	95.1				
p			.434	.512	.136	.017*
Sleep problems						
Yes	72	39.6	89.30 ± 10.72	53.65 ± 8.56	23.02 ± 2.66	12.62 ± 3.31
No	110	60.4				
p			.094	.385	.090	.205
Routine housework						
Yes	56	30.8	88.28 ± 10.21	53.46 ± 8.13	22.58 ± 2.62	12.23 ± 3.56
No	126	69.2				
p			.026*	.284	.008*	.034*
Working at the workplace						
Yes	20	11.0	90.10 ± 8.80	55.30 ± 6.53	23.40 ± 2.79	11.40 ± 3.60
No	162	89.0				
p			.775	.601	.758	.024*

Note: SD = standard deviation, *= $p < 0.05$.

between the TMQ time wasters sub-dimension mean scores of female and male students, and the time wasters' mean score of female students was higher than the mean score of male students ($p = .000$, Table 2). Similar to the findings of this study, Günay et al. (2011), Kaya et al. (2012), and Kibar et al. (2014) reported that female students use time more effectively than male students, while Uysal et al. (2017) reported that time wasters' mean scores of male students were higher than mean scores of female students. This difference is considered to be due to the sample group, and it also makes us think that female students spend more time during the day to meet the social gender roles expected from them.

In this study, a statistically significant difference was found in the TMQ time wasters' sub-dimension according to the age groups of the students and it was found that the 18–20 age group scored higher than the 24–26 age group ($p = .025$, Table 2). İz et al. (2011) reported a significant difference between the age of the students and their TMQ mean scores. As the age progresses, individuals' self-knowledge, effective use of time, and effective time planning knowledge and skills increase, suggesting that these skills are not fully developed in the 18–20 age group.

A statistically significant difference was found in the TMQ time wasters' sub-dimension according to the grades of the students and it was found that the second-grade students scored higher than the fourth-grade students ($p = .001$, Table 2). Contrary to the findings of this study, Uysal et al. (2017) found a significant difference between the time wasters' mean scores of fourth-grade and second-grade students and the time wasters' mean scores of the first-grade and third-grade students (Uysal et al., 2017). In addition, it is reported in the literature that an increase in students' time attitude behaviors is expected with increasing age.

It can be stated that the adaptation to the academic environment and curriculum of second-grade students may be lower compared to the adaptation levels of the students of the upper grades, this situation causes academic anxiety, and the COVID-19 pandemic has made this process even more difficult. Depending on all these, it can be stated that second-grade students waste more time than fourth-grade students.

No statistically significant difference was found between TMQ total mean scores of nursing students and their final GPA (p = .906, Table 2). When the students' final GPAs were examined, it was determined that the group with a GPA of 3.50 and above had the highest TMQ mean score (9.86 ± 9.03). Although there is no statistical difference between students' time management skills and academic success, it is considered that academic success affects time management and that the ease of access to lecture notes and course contents of distance education during the COVID-19 pandemic has a positive effect on academic success. However, 44.5% of the students stated that they perceive their academic success during the distance education period as "moderate" (Table 2).

No statistically significant difference was found between the TMQ total mean scores of nursing students and their status of taking a make-up exam during the distance education period (p = .244, Table 2). It is considered that this finding is related to the students' final GPA, which is accepted as an academic achievement criterion, and that the number of students who did not take the make-up exam is therefore high. It is considered that students can use time management effectively in the distance education system and are successful in this process.

No statistically significant difference was found between TMQ total mean scores of nursing students and where/with whom they lived during the distance education period (p = .828). Although the rate of students living at home with their families was 78.6% (90.62 ± 11.60), the rate of students living alone in a house was 2.7% (97.00 ± 10.88) and their TMQ total mean score was higher (Table 2). Mirzaei et al. (2012) reported that the time management skills of nursing students are affected by social and environmental factors (Mirzaei et al., 2012). According to the findings of this study, it can be stated that students who live alone in a house are more independent and organized in matters related to home life.

A statistical significance was determined between the TMQ total mean scores of nursing students and their duration of social media use (p = .013). Considering TMQ total mean scores, time attitudes sub-dimension mean scores, and time wasters' sub-dimension mean scores of nursing students, a statistically significant difference was found between those who use social media for approximately 1 hour and for 2 hours or more (p = .013, p = .010, p = .039, Table 2). When the social media usage duration of the students is taken into consideration, the high mean scores suggest that students may have a high level of social media addiction. Eşer et al. (2019) reported that the social media addiction levels of 45.8% of the students were mild, 24% were moderately addicted, and 7% were severely addicted. Çiftçi (2018) determined the social media addiction levels of university students as "mild." Although the purpose of the emergence of the internet and social media is to increase interpersonal communication and facilitate information sharing, the rapid spread of the internet has started to cause internet addiction and an increase in the rate of social media usage (Eşer & Alkaya, 2019). In this study, the rate of students using social media for 1 hour or more was found to be 44.0%. According to this finding, it was concluded that social media addiction levels of students were mild. This result is similar to the results of previous studies and suggests that students spend more time on their lessons on the internet and social media during the pandemic.

A statistically significant difference was determined between the TMQ total and time attitudes sub-dimension mean scores of nursing students and the factor that causes loss of time during the distance education period (p = .016, p = .001, Table 2). In line with the fact that the score of the students who think that there is no factor that creates time loss, it can be considered that the students manage their time well and develop their attitudes accordingly because they are aware of these factors.

The ability to manage time effectively is defined as the process of applying planning, organizing, and controlling skills to achieve the goals of individuals effectively in their private and business lives (Uysal et al., 2017). It is of great importance for university students to acquire time management skills so that they can develop socially, increase their academic success, be ready for their future profession, and accomplish complex tasks such as planning their future (Indreica et al., 2011). The findings of this study reveal that nursing students spend less time on social networking sites and make time attitudes (p = .004), Table 3). This result suggests that students are more successful in using time effectively. Although the habit of unplanned behavior and misuse of technological tools can create many irregularities in the lives of individuals, using technology correctly can improve students' academic performance, learn new things, and increase different personal development skills (Nayak, 2019; Özdemir & Sönmez, 2021). Tektaş and Tektaş (2010) determined that the most time-wasting factors for students were computer use (33%) and spending time on the Internet (24%). Similarly, another study reported the most time-wasting factors for students as watching television, computer use, spending time on the internet, and mobile phone use (Varışoğlu et al., 2012). In this study, it was determined that the TMQ total mean scores of nursing students were high, but there was no statistical difference between the sub-dimensions of time planning, time attitudes, and time wasters (Table 3). Students who cannot maintain time management effectively may have a negative impact on their success due to academic stress. Therefore, academic stress can affect physical and mental health, leading to loss of self-confidence and academic failure (Nayak, 2019; Omidvar et al., 2013). To make the best

use of time management, it is necessary to plan time, determine goals and activities, and have effective communication skills. In this study, it was concluded that the students used time effectively ($p = .018$) by communicating less among their peer groups, and they consider the transportation problem as a time-wasting factor ($p = .017$) (Table, 3). The occurrence of disruptions in the process of coming together and communicating and experiencing transportation problems suggest that students cannot come together due to distance education during the COVID-19 pandemic and that they cannot share effectively. During the COVID-19 pandemic, individuals' routine habits in their daily lives and their likelihood to stay at home have increased significantly (Özdemir & Sönmez, 2021). The COVID-19 pandemic has affected nursing students as much as it has affected other student groups, causing their habits in their routine lives to increase and to be adversely affected by this process (Daniel, 2020). In this study, a statistically significant difference was determined between the students' routine housework during the COVID-19 pandemic and their TMQ total mean score, time attitudes sub-dimension mean score, and time wasters' sub-dimension mean score ($p = .026$, $p = .008$, $p = .034$, respectively) (Table 3). This situation suggests that it does not affect students' academic success in terms of effective management of time caused by routine housework.

Conclusion and Recommendations

It was determined that the time management skills of nursing students during the COVID-19 pandemic are at a "high" level, the factors that cause time loss during the distance education period and the duration of social media use affect time management skills, and time management skills do not affect academic achievement.

To improve the time management skills of nursing students, including time management-related subjects in the curriculum and providing consultancy services on the subject is recommended.

Ethics Committee Approval: Ethics committee approval was received for this study from the Ethics Committee of Eastern Mediterranean University, Board of Scientific Research and Publication Ethics (ETK00-2021-0083).

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References

Akyüz, M., Yılmaz, F. T., & Aldemir, K. (2020). Zaman yönetim becerilerinin akademik başarı ile ilişki. *Elektronik Sosyal Bilimler Dergisi*, *19*(73), 414–424. [CrossRef]

Alay, S., & Kocak, S. (2002). Validity and reliability of time management questionnaire. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, *22*(2), 9–13. https://app.trdizin.gov.tr/makale/TWpBeE9Uaz0=/validity-and-reliability-of-time-management-questionnaire

Amir, L. R., Tanti, I., Maharani, D. A., Wimardhani, Y. S., Julia, V., Sulijaya, B., & Puspitawati, R. (2020). Student perspective of classroom and distance learning during COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. *BMC Medical Education*, *20*(1), 392. [CrossRef]

Çakın, M., & Akyavuz, E. K. (2020). The Covid-19 process and its reflection on education: An analysis on teachers' opinions. *International Journal of Social Sciences and Education Research*, *6*(2), 165–186. [CrossRef]

Çiftçi, H. (2018). Social media addiction in university students. *MANAS Sosyal Araştırmalar Dergisi*, *10*(3), 1618–1631. https://dergipark.org.tr/tr/download/article-file/639146

Daniel, S. J. (2020). Education and the COVID-19 pandemic. *Prospects*, *49*(1–2), 91–96. [CrossRef]

Durmaz, M., Hüseyinli, T., & Güçlü, C. (2016). The relation between time management and academic success. *Itobiad: Journal of the Human & Social Science Researches*, *5*(7), 2291–2303.

Ertuğ, N., & Faydali, S. (2018). Investigating the relationship between self-directed learning readiness and time management skills in Turkish undergraduate nursing students. *Nursing Education Perspectives*, *39*(2), E2–E5. [CrossRef]

Eşer, A. K., & Alkaya, S. A. (2019). Examination of nursing students' social media addiction and fear of evading developments. *Sağlık Bilimleri Üniversitesi Hemşirelik Dergisi*, *1*(1), 27–36.

Günay, G., & Beneri, O. (2011). Perception of family life in frame of gender roles of women. *Türkiye Sosyal Araştırmalar Dergisi*, *15*(3), 157–171.

Gündogdu, F., Boztaş, E. N., Güler, E., Akbaba, A., & Varsoyoğlu, S. (2020). Determining the level of time management skills of nursing students and social media addiction. *KTO Karatay Üniversitesi Sağlık Bilimleri Dergisi*, *1*(2), 5–16.

Özdemir, N. G., & Sönmez, M. (2021). The relationship between nursing students' technology addiction levels and attitudes toward e-learning during the COVID-19 pandemic: A cross-sectional study. *Perspectives in Psychiatric Care*, *57*(3), 1442–1448. [CrossRef]

Indreica, E. S., Cazan, A. M., & Truta, C. (2011). Effects of learning styles and time management on academic achievement. *Procedia – Social and Behavioral Sciences*, *30*, 1096–1102. [CrossRef]

İz, F. B., Özen T. A. (2010). Investigation of relationship between time management and academic achievement in nursing students to be the candidate intern. *Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *1*(11), 123–137.

Karaçor, M., Çatır, O., & Sakallı, K. (2017). The effects of personality characterisics on time management skills: Research on vocational school students. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *9*(21), 118–130. [CrossRef]

Karatepe, H. K., Özcan Yüce, U., & Öztürk Yıldırım, T. (2020). Time management: A research on university students. *Bartın Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, *11*(21), 1–21.

Kaya, H., Kaya, N., Palloş, A. Ö., & Küçük, L. (2012). Assessing time managements kills in terms of age, gender, and anxiety levels: A study on nursing and midwifery students in Turkey. *Nurse Education in Practice*, *12*(5), 284–288. [CrossRef]

Kibar, B., Fidan, Y., & Yıldıran, C. (2014). The relation between academic succeses and time management of university students: Karabük University. *Business and Management Studies*, *2*(2), 136–153. [CrossRef]

Mirzaei, T., Oskouie, F., & Rafii, F. (2012). Nursing students' time management, reducing stress and gaining satisfaction: A grounded theory study. *Nursing and Health Sciences*, *14*(1), 46–51. [CrossRef]

Nayak, S. G. (2019). Impact of procrastination and time-management on academic stress among undergraduate nursing students: A cross sectional study. *International Journal of Caring Sciences*, *12*(3).

Omidvar, H., Omidvar, K. H., & Omidvar, A. (2013). The determination of effectiveness of teaching time management strategies on the mental health and academic motivation of school students. *Journal of School Psychology*, *2*(3), 6–22.

Paudel, P. (2021). Online education: Benefits, challenges and strategies during and after COVID-19 in higher education. *International Journal on Studies in Education*, *3*(2), 70–85. [CrossRef]

Tektaş, M., & Tektaş, N. (2010). The relationship between vocational school student's academic success and time management. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *23*, 221–229.

Temizkan Sekizler, E., Karahasan, B., & Dağ, G. S. (2021). Determining the purposes of social network use of students of health sciences, their opinions on the use of social networks in education, and integrating social networks into their education. *Mediterranean Nursing and Midwifery*, *1*(2), 68–77. [CrossRef]

United Nations (2020). Covid-19 response. https://www.un.org/en/un-coronavirus-communications-team/united-nations-working-mitigate-covid-19-impact-children. Accessed March 24, 2021.

Uysal, N., Sözeri, E., Selen, F., & Bostanoğlu, H. (2017). Assesing time management skills and life satisfaction of the nursing students. *Journal of Academic Research in Nursing*, *3*(1), 30–36. Retrieved from https://www.journalagent.com/jaren/pdfs/JAREN_3_1_30_36.pdf

Varışoğlu, B., Şeref, İ., & Yılmaz, İ. (2012). A content analysis on the perceptions of time management for prospective Turkish teachers. *Gazi University Journal of Gazi Educational Faculty (GUJGEF)*, *32*(2), 377–394.

World Health Organization (2020). Q&A on coronaviruses (COVID-19). https://www.who.int/emergencies/diseases/novel-coronavirus-2019/coronavirus-disease-answers Accessed March 24, 2021.