



Cyberloafing Behaviors of Health Professional Students During Distance Education in the COVID-19 Pandemic Period

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Abstract

Background: With the declaration of the new coronavirus (COVID - 19) pandemic, which was detected in the Wuhan region of China and later seen in many countries of the world, education and training were significantly affected in all countries, and distance education started to be used in all areas of education. To this end, students can exhibit cyberloafing behaviors during distance education for various reasons. Thus, this study aims to determine the levels of cyberloafing and the factors affecting these behaviors of students studying in health programs during distance education.

Methods: In this descriptive study, 405 students studying in the health programs of various private and public universities in Turkey and met the criteria for inclusion in the study formed the research sample.

Results: When the students' tools to access distance education during the pandemic process were compared, it was found that students using computers had higher levels of cyberloafing activities than those using other tools ($p<0,05$).

Conclusions: Distance education keeps students connected to technological tools, increases the risk of engaging in activities irrelevant to the course, and thus leads them to exhibit cyberloafing behaviors.

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INTRODUCTION

Advances in information communication technologies (ICT) enabled people to use and enjoy the internet at any time and place using a mobile device. The widespread use of devices with Internet access allowed individuals to use technology for personal purposes, and there is an increasing trend in this subject (Alan, 2019; China Internet Network Information Center, 2018). With the new coronavirus (COVID-19), which first emerged in the Wuhan region of China in 2019 and turned into a pandemic, ICTs started to be used extensively in all sectors. Education was also significantly affected in all countries, and distance education started to be used in all areas of education. Institutions established their infrastructure for distance education, and many universities completed their academic calendars through distance education. The use of internet technologies can positively affect students by providing timely access to information and updated materials related to their field of study. However, it can also be used for non-academic purposes and may prevent the effective integration of the internet and ICT into the learning environment (China Internet Network Information Center, 2018; Seçkin & Kerse, 2017). As a result of distance education, students use computers and the internet largely, and therefore, this leads to their use of technology for personal purposes (Seçkin & Kerse, 2017). It is known that university students continue to use their smartphones and the internet during class hours despite warnings. This indicates that smartphone and internet use has become addictive for university students as well as for all individuals. Students exhibit cyberloafing behaviors by visiting blogs, chatting, sharing, and downloading music from the internet, in their daily lives, outside of class hours, via computers, smartphones, and the internet. During distance education, students can exhibit cyberloafing behaviors using internet technology for various reasons (Örücü & Yıldız, 2014; Seçkin & Kerse, 2017; Alan, 2019). Cyberloafing is a problem that arises with the use of technology, especially the internet, for personal purposes. Behaviors that can be expressed as cyberloafing include sending and reading e-mails, surfing the internet, online

shopping, social networking activities, and sending and receiving text messages (Blanchard & Henle, 2008). Therefore, this study aims to determine the levels of cyberloafing and the factors affecting these behaviors of students studying in health programs during distance education.

METHODS

Research Design

This descriptive study was carried out between September and November 2020 with 405 students studying at the health departments of undergraduate and graduate programs of public and private universities in Turkey. The research was designed to determine the cyberloafing and factors affecting these behaviors of the participant students during distance education in the COVID-19 pandemic. The data collection tools used in the study include: Demographic Characteristics Form: The form prepared by the researchers in the light of the literature in accordance with the research purpose consists of 17 descriptive items about the socio-demographic characteristics and internet and social media usage characteristics of the individuals. The Cyberloafing Scale: The Cyberloafing Scale, adapted to Turkish by Örücü and Yıldız (2014), consists of 14 items, 7 items in each dimension, and two sub-dimensions, namely serious and minor cyberloafing. In the scale form, the items numbered 1, 3, 4, 5, 6, 7, 8 indicate the serious cyberloafing dimension, while the items numbered 2, 9, 10, 11, 12, 13, and 14 refer to the minor cyberloafing dimension. A five-point Likert scale was used in answering the cyberloafing scale (1- never, 2- rarely,

3- sometimes, 4- often, and 5- always). Necessary institutional and ethical permissions were obtained for the implementation of the study. Besides, approval and consent were taken from all students participating in the study on digital platforms, and then the research data were collected.

Data Analysis

The analysis of the data obtained from the study was conducted in the SPSS (Statistical Package for Social Science) 21.0 package software. Information on the demographic

characteristics of the students is analyzed as mean, number, and percentage. Additionally, the scale scores of students are given as mean and standard deviation. The Mann-Whitney U test and the Kruskal-Wallis test were used to determine the difference between the total and subdimension mean scores of students by their class, gender, and distance education access tools.

RESULTS AND DISCUSSION

51.9% (n=210) of the participant students were aged 18-20, 73.6% (n=298) were female, and 64.4% (n=261) were 2nd grade students. Besides, 79.0% (n=320) of the participants stated that they had an internet connection at home, and 51.6% (n=209) had access to education via smartphones during the pandemic process. While 35.8% (n=145) used social media for 1-1.5 hours a day before the pandemic, 46.4% (n=188) stated that they used it for 3 hours or more after the pandemic (Table 1).

Table 1. Demographic Characteristics of Students

| Age | n | % |
|--------------------------------|-----|------|
| 18-20 | 210 | 51,9 |
| 21-23 | 153 | 37,8 |
| 24 and over | 42 | 10,4 |
| Gender | | |
| Female | 298 | 73,6 |
| Male | 107 | 26,4 |
| Living place | | |
| Province | 250 | 61,7 |
| District | 118 | 29,1 |
| Village/town | 37 | 9,1 |
| Department | | |
| Nursing | 105 | 25,9 |
| Midwifery | 30 | 7,4 |
| Dialysis | 80 | 19,8 |
| First and Emergency Aid | 84 | 20,7 |
| Medical Imaging Techniques | 130 | 26,2 |
| Class | | |
| 1 | 102 | 25,2 |
| 2 | 261 | 64,4 |
| 3 | 19 | 4,7 |
| 4 | 23 | 5,7 |
| Having internet at home | | |
| Yes | 320 | 79,0 |
| No | 85 | 21,0 |

Access tool to distance education

| | | |
|-------------|-----|------|
| Computer | 196 | 48,4 |
| Smart Phone | 209 | 51,6 |

Social media usage time before the pandemic

| | | |
|----------------------|-----|------|
| Less than 1 hour/day | 81 | 20,0 |
| 1-1,5 hour /day | 145 | 35,8 |
| 2-2,5 hour /day | 82 | 20,2 |
| 3 hour and over /day | 77 | 18,5 |
| I don't use/day | 22 | 5,4 |

Social media usage time after the pandemic

| | | |
|----------------------|-----|------|
| Less than 1 hour/day | 35 | 8,6 |
| 1-1,5 hour /day | 66 | 16,3 |
| 2-2,5 hour /day | 92 | 22,7 |
| 3 hour and over /day | 188 | 46,4 |
| I don't use/day | 24 | 5,9 |

It was determined that students' serious and minor cyberloafing activities were equally above average (Table 2).

Table 2. The Cyberloafing Scale Sub-dimensions averages

| Cyberloafing Scale Sub-dimensions | X ±SS | Min-Max |
|-----------------------------------|-------------|---------|
| Major Cyberloafing Activities | 2,76 ± 0,9 | 1-5 |
| Minor Cyberloafing Activities | 2,76 ± 0,69 | 1-5 |

There was no significant difference between the participant students' departments and serious and minor cyberloafing activities (Table 3; p<0.05).

Table 3. Comparison of Students' Departments and Cyberloafing Sub-dimensions

| Cyberloafing Sub-dimensions | | Sum of squares | F | p |
|-----------------------------|----------------|----------------|-------|-------|
| Major Cyberloafing | Between groups | 1,342 | 0,693 | 0,597 |
| | Within groups | 193,696 | | |
| | Total | 195,038 | | |
| Minor Cyberloafing | Between groups | 3,504 | 1,094 | 0,359 |
| | Within groups | 320,394 | | |
| | Total | 323,899 | | |

When the students' classes and cyberloafing sub-dimensions were compared, it was found that there was no significant difference

between the classes and serious cyberloafing activities ($p > 0.05$). However, there was a significant difference with minor cyberloafing activities ($p < 0.05$). According to the post-hoc test, the difference between 1st and 2nd-grade students was found to be statistically significant ($p = 0.004$, $p < 0.05$). When the tools used by students to access distance education during the pandemic process and the cyberloafing sub-dimensions were compared, it was found that there was a significant difference between serious cyberloafing activities and minor cyberloafing activities and tools. It was also determined that students using computers to access distance education exhibit more serious and minor cyberloafing activities. There was no significant relationship between the gender of students and cyberloafing sub-dimensions (Table 4; $p > 0.05$)

Table 4. The Cyberloafing Scale Sub-Dimension Score Distributions According to Independent Variables

| | Cyberloafing Scale Sub-dimensions | | | |
|-----------------------------------|-----------------------------------|-----------|-------------------------------|-----------|
| | Major Cyberloafing Activities | | Minor Cyberloafing Activities | |
| | Median | Min-Max | Median | Min-Max |
| Class | | | | |
| 1 | 2,62 | 1-4,13 | 2,50 | 1-4,50 |
| 2 | 2,78 | 1-5 | 2,83 | 1-5 |
| 3 | 2,87 | 1,5-4 | 2,66 | 1,83-5 |
| 4 | 2,75 | 1,13-4,13 | 2,66 | 1,67-4,13 |
| | KW=1,068 p=0,785 | | KW=13,421 p=0,003 | |
| Access tool to distance education | | | | |
| Computer | 2,84 | 1-4,5 | 2,83 | 1,17-5 |
| Smart Phone | 2,62 | 1-5 | 2,50 | 1-5 |
| | U=17083,00 p=0,004 | | U=16730,00 p=0,001 | |
| Gender | | | | |
| Female | 2,75 | 1-5 | 2,75 | 1-4,63 |
| Male | 2,75 | 1-5 | 2,66 | 1-5 |
| | U=15836,00 p=0,918 | | U=15388,50 p=0,593 | |

In this study, the data examining the relationship between university students' cyberloafing behaviors during online lessons in the pandemic process and the students' class, gender, and the tools they use in accessing the course were discussed.

The COVID-19 pandemic brought the method of providing education with distance education all over the world. Not only for educational purposes but also with people staying at their homes, the duration of using technological tools and social media increased compared to the pre-pandemic (Güven, 2020; Wiederhold, 2020; Bergdahl & Nouri, 2020). In a study evaluating the feedbacks of university students about the distance education method during the pandemic period, it was reported that while students spent 2.12 ± 2.98 hours on social media before the pandemic, they spent 5.27 ± 2.98 hours after the pandemic and that the duration of social media usage increased compared to before the pandemic (Keskin & Özer Kaya, 2020). This study determined that students used social media for 1-1.5 hours a day before the pandemic but for 3 hours or more after the pandemic. The result of the study suggests that it may be beneficial to develop some applications that can be used by social media for educational purposes and to use classroom-based social media sites to canalize the increased usage time of students on social media in favor of education.

During the face-to-face education period, students' behaviors of bringing technological tools that they can connect to the internet were common (Yuwanto, 2018). Using these devices for personal purposes during the lesson may be a factor that negatively affects the students' academic performance (Soh, Yeik, & Lim, 2018). In the case where lessons are taught by distance education, students are connected to the lessons with technological tools, and therefore the risk of engaging in activities irrelevant to the course increases (Yildiz Durak, 2019; Yazgan & Yıldırım, 2020). This situation, defined as cyberloafing, forces students to do more than one task at the same time, negatively affects the integration with the educational environment and decreases academic achievement (Yildiz Durak, 2019;

Yazgan & Yıldırım, 2020; Yuwanto, 2018; Soh, Yeik, & Lim, 2018). In our study, serious and minor cyberloafing activities were found equally above average in distance education lessons.

There was no significant difference in cyberloafing sub-dimensions based on gender and department ($p>0.05$). Some studies in the literature propose that there is no difference in terms of gender and students' department and that the effect of gender, class, and the department may vary continuously (Akbulut, Dönmez, & Dursun, 2017; Carbonell, Chamarro, Oberst, Rodrigo, & Prades, 2018; Yıldız Durak, 2019). In this study, when students' classes and cyberloafing sub-dimensions were compared, it was found out that there is a significant difference with minor cyberloafing activities ($p<0.05$).

Cyberloafing behaviors can be performed by many different technological tools such as smartphones, tablets, and desktop and laptop computers (Yıldız Durak, 2019; Şener, 2020). Şener (2020) suggested that in the pre-pandemic period when face-to-face education was carried out, students mostly engaged in cyberloafing behaviors with smartphones in their study examining the cyberloafing behaviors of university students. In this study, in which the tools used by students to access distance education during the pandemic process were compared with the cyberloafing sub-dimensions, it was determined that students using computers displayed more serious and minor cyberloafing activities. As it is challenging to both follow the lesson and do another activity on the smartphone, this may have caused students to prefer the computer in their cyberloafing behaviors.

CONCLUSION

The increased use of technology in recent years brought about many negativities as well as convenience. Especially at times when productivity and efficiency are needed, individuals' getting out of these activities and turning to different mobile applications that attract them appears as an important obstacle in front of reaching the goals. Distance education keeps students connected to technological tools, increases the risk of engaging in activities

irrelevant to the course, and thus leads them to exhibit cyberloafing behaviors.

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