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## Opinions and Attitudes of Nursing Students Towards Distance Education During the Covid-19 Pandemic

Cevheroğlu et al. Distance Education in the Covid-19 Pandemic of Nursing Students

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### ABSTRACT

**BACKGROUND/AIMS:** This study aims to determine the opinions and attitudes of nursing students towards distance education during the COVID-19 pandemic.

**MATERIALS AND METHODS:** This research was designed as a descriptive study. 210 students of nursing department of a private university in Turkish Republic of Northern Cyprus,

who received distance education in the spring semester of 2019-2020 academic year due to the COVID-19 pandemic, constituted the sample of the study. Participants were asked to complete an online survey that included descriptive information form, Opinions on Distance Education Scale (ODES) and Attitude Scale towards Distance Education (ASDE).

**RESULTS:** Mean age of participants was  $21.62 \pm 1.90$  and 55.7% used mobile phone to participate in distance education. Mean internet use was  $6.58 \pm 0.27$  hours per day and 74.4% had internet access problems. Mean scores obtained from the ODES and ASDE were  $45.50 \pm 0.77$  and  $95.74 \pm 2.15$ , respectively. There was a positive and moderate correlation between the mean ODES and ASDE scores.

**CONCLUSION:** Findings of this study imply that lectures with lab and clinical practice are not appropriate for distance education so that they might be compensated with face-to-face education after the COVID-19 pandemic ends.

**Keywords:** Distance education, nursing students, attitudes, opinions

## INTRODUCTION

World Health Organization declared a global pandemic on 11 March 2020 as the COVID-19 has spread globally since late December 2019. Since then, various measures to prevent the spread of the disease have been taken in different sectors, including education (1). Most countries temporarily closed down educational institutions, including, preschools, schools and universities (2,3). In line with the global measures, Ministry of Education and Culture in Turkish Republic of Northern Cyprus (TRNC) decided to temporarily close down all educational institutions as the first COVID-19 case was reported in the country on 10 March 2019 (4). Similarly, after the first COVID-19 case was announced on 11 March 2020, Turkish government first decided to suspend face-to-face education on 16 March 2020, which was followed by the decision to temporarily close all educational institutions on 25 March 2020 (5). During this period, some of the universities and colleges in different countries decided to postpone the spring semester of 2019-2020 academic year, whereas others decided to use distance education (2,6). Council of Higher Education (CoHE), the primary institution responsible for all higher education institutions in Turkey and TRNC, decided to continue spring term of 2019-2020 academic year with distance education (5,7). Universities in TRNC complied with the decision of CoHE on distance education so that university students could graduate on time (8).

Distance education is an education system in which students and lecturers are not in the same physical environment but can simultaneously or sequentially communicate for educational purposes (9). This education system is frequently used in today's world parallel to the advances

in communication and information technologies and the increasing importance of life-long learning (10). Although distance education has been a widely used method of learning during the COVID-19 pandemic, its roots in nursing education can be dated back to the 1960s (11,12). In Turkey, the first associate degree program of nursing that used distance education method was initiated in 1993 but it was only in 2009 that the graduates of these programs were granted the right to complete bachelor's degree (12). However, the global pandemic resulted with the temporary replacement of face-to-face learning with distance education (12,13). Developments in internet technologies and their use in education enabled students to learn on themselves and provided a more flexible and individualized learning environment, which, in turn, resulted with more positive attitudes towards online education. Besides, distance education has several positive aspects, including lower costs than face-to-face learning and having access to various sources of information in a relatively short time and to a geographically widespread population (14). Despite these positive aspects, technical problems, communication deficiency, affective inadequacies, and the problems with educational materials may have negative effects on the opinions and attitudes of students towards distance education (15).

Attitude is defined by the Oxford Learner's Dictionaries "the way that you think and feel about someone or something". As a positive or negative reaction towards a person or an object, attitude is an important factor that influences the efficiency of learning (16). Success and effectiveness of distance education depends on the attitudes and opinions towards this education system. Attitude of an individual towards distance education is closely related with her/his success in learning. That is, people with positive attitudes towards distance education are more likely to have successful learning outcomes (17). Developing positive attitudes towards distance education, on the other hand, depends on determining the opinions and feelings of the students about this education method. Additionally, determining the opinions and attitudes of students towards distance education helps the scholars to reveal the factors that lead to negative perceptions and to plan the learning environment in order to minimize these perceptions (16). Consequently, this study aims to reveal the opinions and attitudes of nursing students towards distance education during the COVID-19 pandemic. The analysis of the literature on distance education in nursing reveals that distance education had positive effects on cognitive and psychomotor skills of nursing students (18,19), and did not significantly differ from face-to-face learning (20,21). Studies on distance education in nursing during the COVID-19 pandemic found, on the other hand, that student satisfaction was moderate or lower, and students experienced internet access problems or felt insufficient in terms of clinical practices (13,22,23). Different from other studies, this study aimed to evaluate both the opinions of the nursing students and their attitudes towards online education.

## **MATERIALS AND METHODS**

### **The Purpose of This Study**

This descriptive study was conducted on nursing students that were enrolled to the department of nursing of a private university in TRNC and received distance education during the spring semester of 2019-2020 academic year.

Research questions include the followings:

- What were the opinions of nursing students on distance education during the COVID-19 pandemic?
- What were the attitudes of nursing students towards distance education during the COVID-19 pandemic?

## **Participants**

210 students in the second, third and fourth years of the nursing department constituted the study population of the study. Voluntary nursing students at the age of 18 and above, who were enrolled to the nursing department and received distance education during the spring semester of 2019-2020 academic year, were included to the study. The criteria for exclusion were students' decision not to participate and being under the age of 18.

## **Data Collection Tools**

We used descriptive information form (11 items), Opinions on Distance Education Scale (ODES) (18 items) and Attitude Scale towards Distance Education (ASDE) (35 items) for data collection. Participants were asked to sign in to the Moodle software, which was used to receive distance education, and complete the online survey. First part of the survey provided information about the researchers and the aim of the research and included a statement regarding informed consent.

## **Descriptive Information Form**

The form was developed by the researchers using the relevant literature (24). It included 11 questions on age, gender, class, computer and internet use skills and internet access of the participants.

## **Opinions on Distance Education Scale (ODES)**

Developed by Yıldırım et al., ODES was composed of 18 items that measured four dimensions of opinions on distance education, namely, personal suitability, effectiveness, instructiveness and familiarity, by using a five-point Likert scale, ranging from 'strongly disagree' (1 point) to 'strongly agree' (5 points). Maximum scores to be obtained from the personal suitability, effectiveness, instructiveness and familiarity subscales were 30, 25, 20 and 15, respectively. Minimum and maximum scores to be obtained ranged from 5 to 90. Cronbach's alpha of the scale in the original study and in our study were 0.864 and 0.758, respectively (25).

## **Attitude Scale towards Distance Education (ASDE)**

Developed by Kışla, ASDE had 35 items that were scored on a five-point Likert scale. Total scores ranged between 35 and 175 points, with higher scores indicating positive attitudes towards distance education. Cronbach's alpha of the scale in the original study and our study were 0.89 and 0.955, respectively (10).

## **Data Collection**

Following the preparation of the online survey, we asked for the permission of the academicians that had lectures with the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year students to conduct the study before their online course. After obtaining permission, we informed the students about the aim and the scope of the research and asked them to complete the online survey before the start of their courses via Moodle-Microsoft Teams software. Following obtaining their informed consent, voluntary students were given 15 minutes to complete the survey.

## **Data Analysis**

SPSS 22.0 (SPSS Inc.; Chicago, IL, USA) was used for statistical analysis of collected data. Kolmogorov-Smirnov test was used to evaluate normality. Mann-Whitney U and Kruskal-Wallis were used for data without normal distribution. Spearman's correlation analysis was used to evaluate the relationship between age of participants, personal suitability, effectiveness, instructiveness and familiarity subscales of ODES and mean ODES and ASDE scores. Statistical significance was set at  $p < 0.05$ .

## **Ethical Considerations**

We obtained permission from the Ethical Commission of the university that the study was conducted at (No: ETK 00-2020-0245) and institutional permission from the head of the department of nursing. All participants were informed before the study and their informed consent was obtained.

## **RESULTS**

Table 1 presented the findings on the descriptive characteristics of the participants and the relationship between descriptive characteristics and mean ASDE scores. The study was conducted on 210 nursing students, who received distance education during the COVID-19 pandemic. Mean age was  $21.62 \pm 1.90$ . 62.1% had personal computers and 55.7% used mobile phones to participate in distance education. 52.7% had a moderate level of computer skills and 27.8% had moderate internet skills. Daily internet use was 7 hours and above for 38.9% of the participants and mean internet use was  $6.58 \pm 0.27$  hours per day. 74.4% had internet access problems.

Mean ASDE scores of the participants aged 23 years and above ( $112.00 \pm 33.41$ ) were statistically significantly higher than the students aged 20 years and below ( $86.81 \pm 27.26$ ) and between 21 and 22 years of age ( $93.19 \pm 27.69$ ) ( $p < 0.001$ ). We did not find any statistically significant relationship between class standing, gender, existence of personal computer, type of distance learning device, internet skills, daily internet use and mean ASDE scores ( $p > 0.05$ ). Mean ASDE score of the participants with advanced computer skills ( $120.38 \pm 36.31$ ) was significantly higher than the participants with low ( $101.33 \pm 31.49$ ), moderate ( $91.24 \pm 28.37$ ) and high levels of computer skills ( $97.04 \pm 31.70$ ) ( $p < 0.001$ ). Finally, mean ASDE scores of the participants without internet access problems ( $108.40 \pm 32.65$ ) was significantly higher than the students with internet access problems ( $91.39 \pm 28.66$ ) ( $p < 0.001$ ).

Table 2 showed mean ODES and ASDE scores of the participants. Mean ODES score was  $45.50 \pm 0.77$ . Mean scores obtained from personal suitability, effectiveness, instructiveness and familiarity subscales of ODES were  $14.59 \pm 0.51$ ,  $10.16 \pm 0.41$ ,  $15.07 \pm 0.36$  and  $5.70 \pm 0.21$ , respectively. Finally, mean ASDE score of the participants was  $95.74 \pm 2.15$ .

Table 3 evaluated the relationship between ODES scores and descriptive characteristics of the participants. There was a statistically significant relationship between age, mean ODES scores and the scores obtained from the personal suitability, effectiveness, and instructiveness subscales of the ODES ( $p < 0.001$ ). In other words, positive opinions of nursing students on distance education increased parallel to the increase in their age. Besides, the relationship between gender and instructiveness subscale of ODES was statistically significant ( $p < 0.021$ ). That is, female students considered distance education as more instructive, however, there was no significant relationship between gender, mean ODES scores and other subscales of ODES ( $p > 0.05$ ). We found a statistically significant relationship between computer skills of the participants and the mean scores obtained from the effectiveness ( $p < 0.033$ ) and instructiveness ( $p < 0.042$ ) subscales of the ODES. Students with advanced ( $16.38 \pm 7.27$ ) and high ( $15.73 \pm 4.52$ ) levels of computer skills had more positive opinions on the effectiveness of distance education. Regarding the relationship between internet access problems and ODES scores, we found that students without internet access problems obtained significantly higher scores from the ODES ( $47.60 \pm 10.42$ ;  $p < 0.023$ ) and the subscales of personal suitability ( $16.98 \pm 7.95$ ;  $p < 0.009$ ) and effectiveness ( $12.69 \pm 6.41$ ;  $p < 0.001$ ). On the other hand, there was a significant relationship between the instructiveness ( $15.69 \pm 4.78$ ;  $p < 0.007$ ) and familiarity ( $6.05 \pm 3.10$ ;  $p < 0.003$ ) scores of the participants with internet access problems. Although not shown in the table, no statistically

significant relationship was found between ASDE scores and some introductory student characteristics.

Table 4 showed the correlation between mean ODES and ASDE scores of the nursing students. We found a moderate and positive correlation between mean ASDE and ODES scores ( $r= 0.491$ ;  $p<0.001$ ). In this sense, higher ASDE scores of the participants brought higher scores obtained from ODES.

## **DISCUSSION**

Sufficient technological infrastructure is required for the effective participation of university students in distance education (26,27). Within this context, Zan and Zan (2020) analyzed the technological capabilities of the students during the COVID-19 pandemic and found that 60.25% of the students had computers or tables but 40.3% had internet connection problems (27). The study of Li et al. reported self-discipline, frequency to access the internet, support and help from the university and the use of the course resources as the facilitators to improve success in the online learning of nursing students (23). Our findings were also consistent with the literature. At this point, the 6 GB package provided by the CoHE to university students was an important institutional support (28). However, in addition to internet, the need of the university students for computers or tablets might be met by the state or university-sponsored campaigns. In order to cope with internet access problems during the synchronous lectures, videos and lecture notes might be shared before the lecture (29).

Keskin and Kaya found that mean internet use of university students increased from  $2.98 \pm 2.12$  hours to  $5.27 \pm 2.98$  hours per day after the COVID-19 pandemic (30). Armstrong- Mensah et al. also found that daily internet use of university students increased to 4 hours during the COVID-19 pandemic (31). In our study, mean internet use of the nursing students was  $6.58 \pm 0.27$  per day. These findings imply that daily internet use may have increased due to the transition to distance education during the COVID-19 pandemic. Various studies that analyzed the skills of using computer and other communication technologies found that university students had moderate or high levels of computer skills (32–34). Similar to our study, university students in the studies of Düşünceli et al, Abbasi et al. and Karakuş et al. had moderate computer skills (24,26,35). On the other hand, we found that most of the students had internet access problems and used mobile phone for distance education. Studies of Düşünceli et al. and Abbasi et al. had similar findings (24,26). Consequently, measures to reduce the negative effects of internet outages on distance education, such as asynchronous lecture videos, might be taken.

During the COVID-19 pandemic, universities used distance education as a rapid response to cope with the crisis (30,36). Due to the rapid pace of the transition to distance education, the number of studies on the opinions and attitudes of university students towards this new method of learning is limited (36). Our study, which aimed to fill this gap, found that opinions and attitudes of nursing students towards distance education was negative in general. Besides, we found a positive relationship between opinions on and attitudes towards distance education. In other words, students with positive opinions on distance education had also positive attitudes towards this education method. There was a number of studies on the opinions on and attitudes towards distance education in the literature. Altuntaş Yılmaz found that attitudes of physiotherapy and rehabilitation students towards distance education during COVID-19 pandemic was positive (37). Ali et al. found a favorable attitude towards e-learning among nursing students (38). Similarly, Balaman found that vocational school students had positive perspectives on web-based distance education (39). In contrast to these, other studies reported negative findings. Nursing education, which depends on psychomotor skills, requires lab

courses and clinical practices during the undergraduate studies (40). Especially, existing studies on students of nursing and medicine during COVID-19 pandemic showed that the students mostly preferred face-to-face learning and believed that distance education was insufficient in terms of lab courses and clinical practices (24,30,40). Similarly, university students in the study of Karakuş et al. had negative opinions on distance education (35). On the negative side, nursing students experienced difficulties in understanding applied courses (13) and expressed that distance education was not suitable for nursing practice and consequently for the department of nursing (8,40). Based on these findings, we may suggest that measures to prevent infection might be taken in order to start applied courses as soon as possible. Besides, students might be informed that applied courses will be compensated at a convenient time. Another reason of the negative opinions and attitudes of university students towards distance education may be related with the lack of necessary internet and communication infrastructure. Besides, students may not be prone to distance education and may consider it as an ineffective method of learning. Students of health sciences are especially more anxious of distance education since they receive online applied courses. In order to overcome this problem, methods other than online courses might be preferred for applied courses and online courses should be supplemented with virtual simulation practice. Simulation in nursing has become one of the alternative methods of learning in nursing education due to the possible restrictions to be caused by pandemics, such as the COVID-19 pandemic. Simulation programs help nursing students to analyze clinical cases, plan nursing care and evaluate their own performance (29). Besides, we believe that these educations might be complemented with face-to-face courses to reach program learning outcomes.

Determining students' opinions and attitudes towards distance education is crucial to reveal the factors that may lead to negative perceptions, make necessary interventions to change these perceptions and properly design the learning environment (16). The analysis of the relationship between descriptive characteristics of nursing students and their attitudes towards distance education in various studies revealed the importance of gender (34,41,42). This study, which aimed to determine opinions and attitudes of nursing students towards distance education during the COVID-19 pandemic, found that mean age of the participants was  $21.62 \pm 1.90$  years and most of them were female. Our findings were consistent with the findings of other studies on nursing students (8,40,43). Unlike these studies, gender in our study was not an important factor that influenced the attitudes and opinions of participants. Regarding the gender, we only found that female nursing students considered distance education as more instructive. Additionally, we found that increase in age brought more positive opinions and attitudes towards distance education. Similarly, students in the study of Düşünceli et al. considered distance education as an effective learning method as they grew older (26). In our study, older students considered distance education as personally more suitable, effective and instructive.

Sustaining effective distance education without interruption depends on computer skills of the students and their access to internet. In our study, participants without internet access problems had more positive opinions on and attitudes towards distance education. These students also considered distance education as a personally suitable and effective learning method. On the other hand, participants with internet access problems considered distance education as an instructive and familiar method. The study of Barış found that university students without internet access problems had positive attitudes towards distance education (44). We also found that participants with advanced computer skills had more positive attitudes towards distance education and considered it as an effective learning method. Besides, participants with high and moderate levels of computer skills believed that distance education was instructive. Ateş and

Altun evaluated the effects of various factors on attitudes towards distance education and found that experience of computer use and perceived computer skills significantly influenced the attitudes towards distance education (45). Therefore, before starting distance education, students might receive courses to improve their computer skills and use the software for distance education. These courses may contribute to positive opinions and attitudes towards distance education

The main limitation of this study was related with the fact that it was conducted on nursing students of a single university. Therefore, our findings may not reflect opinions and attitudes of all nursing students towards distance education.

Opinions and attitudes of nursing students towards distance education in our study was generally negative. Opinions and attitudes improved as the age of students increased, internet access problems decreased and they had higher computer skills. Consequently, in case of the possible extension of the distance education in universities due to the COVID-19 pandemic, universities or the government might provide unlimited internet access to university students and initiate programs to increase their computer skills. Asynchronous lectures might be used as alternative to synchronous lectures in case of internet access problems. In such cases, flipped classroom, lecture videos or discussion platforms may be used to gain access to resources prior to the course. Besides, content of applied courses might be enriched and learning methods, such as, virtual reality platforms, digital game-based learning or video-based learning should be used to improve the skills of the students. Given that the course and the length of pandemic is currently unknown, universities might prepare emergency plans to cope with possible developments. Curriculum or course plans might be revised in order to compensate the lab courses and clinical practices postponed due to COVID-19 pandemic with face-to-face courses once the universities are reopened.

#### MAIN POINTS

- Opinions and attitudes of nursing students towards distance education in our study was generally negative.
- Opinions and attitudes improved as the age of students increased, internet access problems decreased and they had higher computer skills.
- Curriculum or course plans might be revised in order to compensate the lab courses and clinical practices postponed due to COVID-19 pandemic with face-to-face courses once the universities are reopened.

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<b>Variables</b>	<b>Mean</b>	<b>SD</b>	<b>Total Scale Score</b>		
<b>Age</b>	21.62	1.90			
<b>Daily Internet Usage Time</b>	6.58	0.27			
	<b>Number</b>	<b>Percentage</b>	<b>Mean (SD)</b>	<b>Test X<sup>2</sup>/Z</b>	<b>P</b>
<b>Age Group</b>					
20 years and below	69	34.0	86.81±27.26	19.68	.001
21-22 years	83	40.9	93.19±27.69		
23 years and above	51	25.1	112.00±33.41		
<b>Gender</b>					
Male	71	35	97.89±33.23	-.618	.537
Female	132	65	94.60±29.11		
<b>Class</b>					
2. class	71	35	90.45±32.13	4.65	.098
3. class	78	38.4	95.83±25.46		
4. class	54	26.6	102.59±34.23		
<b>Own Computer Presence</b>					
Yes	127	62.6	98.37±31.67	-1.406	.160
No	76	37.4	91.45±28.35		
<b>Device Used in Distance Education</b>					
Desktop Computer	14	6.9	109.57±34.90	2.778	.249
Laptop	76	37.4	95.51±31.33		
Mobil Phones	113	55.7	94.19±39.33		
<b>Computer Skills</b>					
Low Levels	40	19.7	101.33±31.49	8.615	.035
Moderate Levels	107	52.7	91.24±28.37		
High Levels	48	23.6	97.04±31.70		
Advanced Levels	8	3.9	120.38±36.31		
<b>Internet Skills</b>					
Low Levels	15	7.4	100.33±26.17	3.763	.288
Moderate Levels	97	47.8	94.81±30.09		
High Levels	78	38.4	93.37±30.07		
Advanced Levels	13	6.4	111.69±39.23		

<b>Daily Internet Usage Time</b>					
3 hours and Below	48	23.6	92.77±28.98	2.099	.350
4-6 hours	76	37.4	100.07±33.52		
7 hours and above	79	38.9	93.41±28.36		
<b>Internet Access Status</b>					
Hassle- free	52	25.6	108.40±32.65	-3.378	.001
Problem	151	74.4	91.39±28.66		

Z= Mann-Whitney U Test

X<sup>2</sup> Kruskal-Wallis H

<b>Table 2. Opinions on Distance Education Scale and Attitude Scale towards Distance Education Mean Scores of the Participants</b>		
	<b>Mean (SD)</b>	<b>Min-Max Puan</b>
<b>Opinion Scale for Distance Education</b>		
Personal Suitability	14.59±0.51	1-30
Effectiveness	10.16±0.41	1-25
Instructiveness	15.07±0.36	1-20
Familiarity	5.70±0.21	1-15
Total Score Average	45.50±0.77	5-90
<b>Attitude Scale Towards Distance Education</b>		
Total Score Average	95.74± 2.15	35-175

<b>Table 3. Relationship Between Opinions on Distance Education Scale Scores and Descriptive Characteristics of the Participants</b>	
	<b>SCALE SCORE AVERAGES</b>

	Personal Suitability	Effectiveness	Teaching	Predisposition	Total Score Average
<b>Age</b>					
20 years and below	12.29±5.37 13.61±6.80	8.04±3.75 9.32±5.18	16.80±4.1 8	6.25±3.14 5.30±2.82	43.38±8.63 46.49±10.62
21-22 years	19.29±8.39	14.37±7.12	15.25±4.8	5.57±2.95	51.67±11.98
23 years and above	21.98 .001	27.89 .001	6 12.43±5.7	4.64 .098	19.65 .001
<b>X<sup>2</sup></b>			6		
<b>p</b>			20.69 .001		
<b>Gender</b>					
Male	15.03±8.08	10.92±6.62	13.86±5.5	5.96±3.24	45.76±12.53
Female	14.36±6.91	9.75±5.40	6	5.55±2.83	45.37±9.99
<b>Z</b>	-.056	-.825	15.71±4.8	-.779	-.243
<b>p</b>	.955	.409	1 -2.310 .021	.436	.808
<b>Class</b>					
2. class	13.61±7.09	9.41±5.35	15.82±4.8	5.80±3.44	44.64±9.22
3. class	13.83±6.68	9.54±5.44	2	5.91±2.87	44.72±11.90
4. class	14.60±8.10	12.04±6.76	15.44±5.0	5.22±2.41	44.78±11.36
<b>X<sup>2</sup></b>	5.81	5.05	7	1.58	3.59
<b>p</b>	.055	.080	13.56±5.4 3 5.73 .057	.453	.166
<b>Own Computer Presence</b>					
Yes, there is	14.85±7.36	10.18±5.78	14.87±5.2	5.58±2.77	45.48±10.94
No, not	14.17±7.30	10.12±6.06	0	5.87±3.30	45.56±10.96
<b>Z</b>	-.704	-.495	15.40±5.0	-.083	-.286
<b>p</b>	.481	.621	7 -.654 .513	.934	.775
<b>Device Used in Distance Education</b>					
Desktop	17.07±8.77	12.36±7.23	14.64±5.6	5.71±3.56	49.79±12.93
Computer	14.62±6.80	9.96±5.56	0	5.46±2.63	44.92±10.68
Laptop	14.27±7.49	10.02±5.90	14.88±5.0	5.84±3.14	45.37±10.80
Mobil Phones	1.826	1.815	2	.600	1.612
<b>X<sup>2</sup></b>	.401	.403	15.25±5.2	.741	.447
<b>p</b>			1 .402 .818		
<b>Computer Skills</b>					

Low Levels	14.08±7.77	10.08±6.04	14.20±5.6	6.40±3.51	44.75±13.49
Moderate	14.17±7.04	9.52±5.55	1	5.77±2.85	44.94±10.21
Levels	15.04±7.15	10.60±5.74	15.49±5.0	5.23±2.85	46.60±10.23
High Levels	20.13±8.87	16.38±7.27	0	3.88±1.46	50.25±10.22
Advanced	4.121	8.767	15.73±4.5	7.184	2.497
Levels	.249	.033	2	.066	.476
<b>X<sup>2</sup></b>			9.88±5.62		
<b>p</b>			8.199		
			.042		
<b>Internet Use Skill</b>					
Low Levels	13.47±7.28	9.33±5.52	12.73±5.8	6.33±3.24	41.87±16.90
Moderate			1		
Levels	14.56±7.24	9.95±5.68	15.39±5.0	6.16±3.17	46.06±10.20
High Levels	14.67±7.31	10.18±5.99	2	5.14±2.63	45.54±10.64
Advanced	15.69±8.78	12.54±6.70	15.55±5.0	4.69±2.66	45.38±3.79
Levels	.405	2.487	0	7.197	1.310
<b>X<sup>2</sup></b>	.939	.478	12.46±5.2	.066	.727
<b>p</b>			2		
			7.546		
			.056		
<b>Daily Internet Usage Time</b>					
3 hours and	13.75±6.56	9.06±4.02	14.38±4.4	5.17±2.30	42.35±9.86
Below	15.77±7.94	11.14±6.30	5	5.86±3.31	47.41±10.73
4-6 hours	13.96±7.10	9.87±5.84	14.63±5.1	5.85±3.00	45.59±11.39
7 hours and	2.057	3.040	2	.441	5.079
above	.358	.219	15.91±4.9	.802	.079
<b>X<sup>2</sup></b>			3		
<b>p</b>			3.519		
			.172		
<b>Internet Access Status</b>					
Hassle- free	16.98±7.95	12.69±6.41	13.27±5.7	4.65±2.31	47.60±10.42
Problem	13.77±6.94	9.28±5.42	5	6.05±3.10	44.79±11.26
<b>Z</b>	-2.626	-3.749	15.69±4.7	-2.928	-2.271
<b>p</b>	.009	.000	8	.003	.023
			-2.694		
			.007		
Z= Mann-Whitney U Test X <sup>2</sup> Kruskal-Wallis H test					

UNCORRECTED PROOF

**Table 4. Correlation Between Mean Opinions on Distance Education Scale and Attitude Scale towards Distance Education Scores of the Nursing Students**

		<b>Opinion Scale for Distance Education Average</b>	<b>Attitude towards Distance Education Scale Average score</b>
<b>Opinion Scale for Distance Education Average</b>	r		.491(*)
	p		.000
<b>Attitude towards Distance Education Scale Average score</b>	r	.491(**)	
	p	.000	

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

UNCORRECTED PROOF