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The Relationship Between the Level of Nursing Students' Awareness of Covid-19 and Their Hygiene Behaviors

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ABSTRACT

Objective: This research was conducted to reveal the level of awareness about Covid-19 and hygiene behaviors among nursing students and to examine the correlation between the two. **Materials and Methods:** The study, in which a descriptive and cross-sectional design was used, was conducted between May 17 and June 18, 2021. The study sample consisted of students who were from the Faculty of Health Sciences of a university and volunteered to participate in the research. Data were collected via an online questionnaire that consisted of three measures, namely a descriptive data form, the Covid-19 Hygiene Scale, and the Coronavirus (Covid-19) Awareness Scale. **Results:** Students' scores on the Covid-19 hygiene scale (103.62±21.95) and the Coronavirus (Covid-19) awareness scale (60.18±14.70) were found to be high. The results of the correlation analysis indicated that the Covid-19 Hygiene Scale had a moderate and positive relationship with the "Awareness of Following Current Developments" subscale and the "Contagion Precaution Awareness" subscale of the Coronavirus (Covid-19) Awareness Scale and a strong and positive relationship with "Hygiene Precaution Awareness" subscale. Besides, a moderate, positive correlation was found between the Coronavirus (Covid-19) Awareness Scale and Covid-19 Hygiene Scale. **Conclusion:** In conclusion, it was found that the awareness level and hygiene behaviors of nursing students participating in our study about Covid-19 were high.

Keywords: Nursing Students, Covid-19, Covid-19 Hygiene Behaviors, Covid-19 Awareness Level.

Hemşirelik Öğrencilerinde Covid-19 Farkındalık Düzeyi ile Hijyen Davranışları Arasındaki İlişki

ÖZ

Amaç: Çalışmanın amacı, hemşirelik öğrencilerinin Covid-19 pandemisi ile ilgili farkındalık düzeylerinin ve hijyen davranışlarının ortaya çıkarılması ve aralarındaki ilişkinin incelenmesidir. **Gereç ve Yöntem:** Araştırma tanımlayıcı ve kesitsel türde olup 17 Mayıs-18 Haziran 2021 tarihleri arasında gerçekleştirilmiştir. Araştırmanın örneklemini, bir Üniversitenin Sağlık Bilimleri Fakültesi Hemşirelik bölümünde öğrenim gören, araştırmaya katılmaya gönüllü olan öğrenciler oluşturmuştur. Veriler, "Birey Tanıtım Formu," "Koronavirüs (Covid-19) Farkındalık Ölçeği" ve "Covid-19 Hijyen Ölçeği" olmak üzere üç formdan oluşan çevrimiçi bir anket aracılığıyla toplanmıştır. **Bulgular:** Öğrencilerin Covid-19 hijyen ölçeği (103.62±21.95) ve Koronavirüs (Covid-19) farkındalık ölçeği toplam puanları yüksek düzeyde (60.18±14.70) bulunmuştur. Korelasyon analizi sonuçlarına göre; Covid-19 hijyen ile Koronavirüs (Covid-19) farkındalık alt boyutlarından "bulaşma tedbiri farkındalığı" ve "güncel gelişmeleri takip farkındalığı" arasında pozitif ve orta düzeyde bir ilişki, "hijyen tedbiri farkındalığı" alt boyutu arasında ise pozitif ve kuvvetli bir ilişki görülmüştür. Ayrıca Covid-19 hijyen ile Koronavirüs (Covid-19) farkındalık arasında pozitif ve orta düzeyde bir ilişki olduğu belirlenmiştir. **Sonuç:** Sonuç olarak, araştırmamıza katılan hemşirelik öğrencilerinin Covid-19 hakkında farkındalık düzeyinin ve hijyen davranışlarının yüksek olduğu görülmüştür.

Anahtar Kelimeler: Hemşirelik Öğrencileri, Covid-19, Covid-19 Farkındalık Düzeyi; Covid-19 Hijyen Davranışları.

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INTRODUCTION

Due to the transmission of coronavirus from person to person via droplets and contact, individuals should increase their personal hygiene measures and avoid close contact to protect themselves (Kutlu, 2020; Karataş, 2020). Hygiene is the most important precaution that the WHO and the Ministry of Health in Turkey often emphasize to protect against the Covid-19 pandemic (WHO, Retrieved from <https://www.who.int/>, T.C. Ministry of Health, Retrieved from <https://COVID19.saglik.gov.tr/>). It is one of the most effective ways to prevent the transmission and spread of microorganisms that cause infection in society. Hygiene behaviors are the body of practices and behaviors related to the prevention of the transmission of infections and are very important in the fight against a highly contagious disease such as Covid-19 (Altun, 2020). The health systems and public policies of countries have a very important place in combating the pandemic; yet the behavior and attitudes of people individually and socially can also be decisive in terms of the course of the pandemic (Bilgin, 2020; Han et al., 2020). Awareness of infectious diseases is important in infection prevention (Altaher et al., 2021). A study on the awareness of individuals indicated that after the Covid-19 pandemic, there was an average of 85-90% increase in individuals' behaviors towards measures, such as cleaning, obeying hygiene rules, and using masks and gloves, and an average of 95% decrease in being in crowded places and using public transportation (Karataş, 2020). In the Covid-19 pandemic, as in other infectious diseases, healthcare professionals are at a high level of risk compared to the rest of society, and the awareness of healthcare workers and prospective healthcare workers about knowledge, behaviors, and treatments relating to the disease is of great significance to find an effective solution to the Covid-19 pandemic (Bali et al., 2021). In addition, health sciences students, who will be responsible for identifying the needs of community and planning healthcare, are representative of both community and health workers. For this reason, their knowledge and skills in this area should be determined and ways to improve them should be found (Andermann, 2016; Kışsal et al., 2020). As far as I know, this is the first research that investigates the association between the Covid-19 awareness level and hygiene behaviors by utilizing measurement tools. The study shows that more comprehensive studies should be conducted on this subject. For these reasons, this study was carried out to uncover the level of nursing students' Covid-19 awareness and their hygiene behaviors about the Covid-19 pandemic, which affects the whole world, and to investigate the relationship between them.

Research questions

1. What is the level of nursing students' awareness about the Covid-19 pandemic, and what factors affect it?
2. What hygiene behaviors do nursing students have during the Covid-19 pandemic, and what factors affect them?
3. What is the correlation between nursing students' level of Covid-19 awareness and hygiene behaviors?

MATERIALS AND METHODS

The sample and design of the study

A descriptive cross-sectional method was utilized in the research. The research was conducted between May 17 and June 18, 2021. The study population involved 1st, 2nd, and 3rd-year students from the Faculty of Health Sciences, Department of Nursing at a university (N=220). This population also made up the sample; therefore, no sampling calculation was used. The sample of the study comprised students who agreed to join the research (n=170).

Data collection instruments

The researchers developed an online questionnaire on Google forms. An online questionnaire, which involved "descriptive data form" "Covid-19 Hygiene Scale" and "Coronavirus (Covid-19) Awareness Scale", was used to collect the study data. An informed consent form was added to the beginning of the online questionnaire, and after individuals gave consent, they proceeded with the following pages and completed the questionnaire online.

Descriptive Data Form: This form consisted of a total of 11 questions about students' age, gender, school year, high school that was graduated, place of residence, level of mother's education, level of father's education, family income, mother's working status, father's working status, and family type.

The Coronavirus (Covid-19) Awareness Scale: It is a five-point Likert-type scale. It has a total of seventeen items, each of which is rated with options ranging from (1) never to (5) always. The subscales are hygiene precaution awareness (HPA), awareness of following current developments (AFCD), and contagion precaution awareness (CPA) (Bilgin, 2020).

The Covid-19 Hygiene Scale: This scale was designed to identify individuals' hygiene behaviors during the Covid-19 process. It has a total of twenty-seven items and six factors, namely, home hygiene, hygiene when coming home from outside, social distance and wear of masks, shopping hygiene, hand hygiene, and changing hygiene behaviors in the pandemic. The lowest and highest scores on the scale are 27 and 135, respectively (Çiçek et al., 2020).

Statistical analysis

Statistical analyses were conducted on the R and JASP software packages. Frequency values and percentages were used for categorical variables, and standard deviation, mean, median, and minimum and maximum values were utilized for continuous variables to present descriptive statistics. The normality of the variables was tested by using the Shapiro-Wilk test. Kruskal Wallis and Mann-Whitney U tests were utilized for comparing continuous variables between independent groups, and Bonferroni corrected Mann Whitney U test for post hoc comparisons. Continuous variables were compared via the Pearson correlation coefficient. A p-value of <0.05 was assumed as statistically significant in all comparisons. In correlation analysis, the correlation coefficient "r" is interpreted as follows: 0 - 0.40, weak correlation; 0.41 - 0.69, moderate level of correlation; 0.71 - 1.00, strong correlation.

Ethical considerations

The study was approved by the Scientific Research Platform of the Ministry of Health and the Clinical Research Ethics Committee of XXX University (Decision no: 2021/05-09; Date: April 28, 2021). The study was conducted following the Helsinki principles. Necessary permission was obtained from the researchers that conducted the validity and reliability study of the scales in the Turkish context. The questionnaire form was delivered to the students online. There was a checkbox at the beginning of the questionnaire to declare that the questionnaire was filled out voluntarily.

RESULTS

The findings indicated that 69.4% of the students were female, 48.8% were freshmen, 27.6% were sophomores, and 23.5% were juniors. Also, 35.3% were 20 years old, 75.9% had graduated from Anatolian high schools, 33.4% were residing in a metropolitan city, and 76.5% had a core family.

The mean score of students on the overall Covid-19 Hygiene Scale was 103.62 ± 21.95 . Their mean subscale

scores were as follows: changing hygiene behaviors in the pandemic, 22.21 ± 5.11 ; home hygiene, 15.15 ± 3.82 ; social distance and wear of masks, 16.67 ± 3.46 ; shopping hygiene, 17.58 ± 5.29 ; hand hygiene, 20.69 ± 4.62 ; and hygiene when coming home from outside, 11.31 ± 3.20 . Students' overall score on the Coronavirus (Covid-19) awareness scale was 60.18 ± 14.70 . Their mean subscale scores were as follows: CPA, 34.15 ± 8.06 ; AFCD, 13.64 ± 4.53 ; and HPA, 12.39 ± 3.98 (Table 1). Statistically significant differences were identified between students' gender and mean scores on the overall Covid-19 hygiene scale and "home hygiene," "changing hygiene behaviors in the pandemic," "hand hygiene," "hygiene when coming home from outside," and "social distance and wear of masks" subscales. Female students had higher scores than male students. Also, a significant difference was identified between males and females in terms of their scores on the overall "Coronavirus (Covid-19) awareness" measure, and the "HPA" subscale. Females' mean scores on the overall scale and its subscales were found higher.

Table 1. Students' mean scores from the overall and subscales of the Covid-19 hygiene and coronavirus (Covid-19) awareness scales.

Scales and Subscales	n	Mean±SD	Median	Min.-Max.
The Covid-19 Hygiene Scale				
Changing hygiene behaviors in the pandemic	170	22.21±5.11	23	6-30
Home hygiene	170	15.15±3.82	16	4-20
Social distance and wear of masks	170	16.67±3.46	17.5	4-20
Shopping hygiene	170	17.58±5.29	18	5-25
Hand hygiene	170	20.69±4.62	22	5-25
Hygiene when coming home from outside	170	11.31±3.20	12	3-15
Overall Covid-19 hygiene	170	103.62±21.95	108	27-135
The Coronavirus (Covid-19) Awareness Scale				
CPA	170	34.15±8.06	35	9-45
AFCD	170	13.64±4.53	14	4-20
HPA	170	12.39±3.98	12.5	4-20
Overall Coronavirus (Covid-19) awareness	170	60.18±14.70	61.5	17-85

CPA=Contagion Precaution Awareness, AFCD=Awareness of Following Current Developments, HPA=Hygiene Precaution Awareness.

Students' scores on the "hand hygiene" subscale yielded a statistically significant difference according to the education level of the mother. The significant difference was between students with mothers who were literate and those with mothers who were high school/university graduates. Another statistically significant difference was observed between students' mean scores on the overall "Coronavirus (Covid-19) Awareness Scale" and its subscales according to the level of mothers' education. The significant difference was between students with mothers who were literate and those with mothers who were high school/university graduates.

Students' scores on the "social distance and wear of masks," "home hygiene," "shopping hygiene," "hygiene when coming home from outside," "hand hygiene," and the overall "Covid-19 Hygiene Scale" showed a statistically significant difference according to the education level of the father.

Another statistically significant difference was observed between the mean scores of students on the overall "Coronavirus (Covid-19) Awareness Scale" and its subscales according to the education groups of fathers. Students' scores on the subscales of the hygiene scale and the overall "Covid-19 Hygiene Scale" did not show a statistically significant difference in terms of income. The mean scores on the overall "Coronavirus (Covid-19) Awareness Scale" and its subscales did not show a statistically significant difference between income groups (Table 2).

Table 2. Comparison of students' mean scores from the overall and subscales of the Covid-19 hygiene and coronavirus (Covid-19) awareness scales and subscales according to some socio-demographic characteristics.

Characteristics		Changing Hygiene Behaviors in The Pandemic	Home Hygiene	Social Distance and Wear of Masks	Shopping Hygiene	Hand Hygiene	Hygiene When Coming Home from Outside	Overall Covid-19 Hygiene	CPA	AFCD	HPA	Overall Coronavirus (Covid-19) Awareness
Gender	Female	22.70±4.93	15.69±3.67	17.11±3.30	17.82±5.33	21.40±4.23	11.88±2.94	106.60±20.86	34.78±8.04	14.15±4.11	13.14±3.68	62.08±14.33
	Male	21.08±5.38	13.94±3.91	15.67±3.63	17.04±5.21	19.10±5.10	10.02±3.42	96.85±23.03	32.73±7.99	12.46±5.23	10.67±4.12	55.87±14.75
	Test statistics	0.037	0.004	0.007	0.283	0.004	0.001	0.003	0.094	0.051	<0.001	0.010
Mother's education	Literate	22.49 ±5.48	14.83±4.11	15.98±3.81	17.15±5.29	19.12±5.24	10.32±3.39	99.88±24.09	32.98±7.87	12.27±4.47	11.05±4.17	56.30±14.04
	Primary school	21.99 ±5.22	15.31±3.79	16.67±3.39	17.40±5.51	20.84±4.49	11.49±3.18	103.72±21.96	33.42±8.25	13.46 ± 4.74	12.60±3.91	59.47±15.17
	High school /University	22.40 ±4.55	15.13±3.64	17.38±3.18	18.43±4.80	21.98±3.82	11.93±2.89	107.23±19.40	37.00±7.28	15.43±3.54	13.30±3.67	65.73±12.91
	Test statistics	0.736	0.876	0.212	0.528	0.030	0.071	0.382	0.032	0.006	0.033	0.011
Father's education	Literate	20.00±6.38	13.32± 3.83	14.00±3.70	12.79±4.21	16.68±5.01	8.16±3.04	84.94±20.98	30.32±7.46	10.63±4.75	8.79±2.82	49.74±11.93
	Primary school	22.87±4.54	15.70±3.70	16.95±3.15	18.25±5.18	20.9±4.24	11.83±2.80	106.60±19.95	33.74±7.95	13.60±4.34	12.68±3.63	60.01±14.21
	High school /University	21.85±5.3	14.92±3.87	16.98±3.56	18.25±5.07	21.33±4.52	11.41±3.29	104.38±22.68	35.56 ±8.08	14.39±4.42	13.00±4.28	62.95±14.94
	Test statistics	0.214	0.042	0.003	<0.001	0.001	<0.001	0.001	0.022	0.009	<0.001	0.001
Level of income	Income<exp enses	21.03±5.97	13.83±4.45	15.75±3.64	16.14±5.99	19.11 ± 5.41	10.28±3.63	96.14±25.46	33.86±8.04	12.94±5.03	11.36±4.32	58.17±15.32
	Income = expenses	22.69 ±4.77	15.45±15.45	16.88±16.88	17.67±17.67	21.04 ± 21.04	11.54±11.54	105.27±20.57	33.93±8.15	13.75±4.33	12.55±3.82	60.23±14.41
	Income>exp enses	21.80±5.14	15.76± 3.94	17.08±3.60	19.28±4.65	21.48 ± 4.34	11.80±3.25	107.20±20.82	35.56±7.85	14.12 ± 4.73	13.16 ±4.03	62.84±15.22
	Test statistics	0.383	0.127	0.122	0.099	0.111	0.153	0.184	0.572	0.565	0.188	0.444

CPA=Contagion Precaution Awareness, AFCD=Awareness of Following Current Developments, HPA=Hygiene Precaution Awareness.

The correlation analysis indicated that there was a positive and moderate correlation between students' mean scores on the Covid-19 Hygiene Scale and contagion precaution awareness (CPA) subscale ($r=0.582$, $p<0.001$), a moderate, positive correlation with awareness of following current developments (AFCD) subscale ($r=0.515$, $p<0.001$), and a strong,

positive correlation with hygiene precaution awareness (HPA) subscale ($r=0.751$, $p<0.001$). Besides, there was a moderate, positive correlation between the mean scores of students on the Coronavirus (Covid-19) Awareness and Covid-19 Hygiene Scales ($r=0.682$, $p<0.001$) (Table 3).

Table 3. The relationship between Covid-19 Hygiene Behaviors and Coronavirus (Covid-19) Awareness.

	1	2	3	4	5	6	7	8	9	10
1. Changing hygiene behaviors in the pandemic	-									
2. Home hygiene	$r=0.698$ $p<0.001$	-								
3. Social distance and wear of masks	$r=0.576$ $p<0.001$	$r=0.629$ $p<0.001$	-							
4. Shopping hygiene	$r=0.603$ $p<0.001$	$r=0.648$ $p<0.001$	$r=0.557$ $p<0.001$	-						
5. Hand hygiene	$r=0.542$ $p<0.001$	$r=0.611$ $p<0.001$	$r=0.770$ $p<0.001$	$r=0.569$ $p<0.001$	-					
6. Hygiene when coming home from outside	$r=0.626$ $p<0.001$	$r=0.693$ $p<0.001$	$r=0.663$ $p<0.001$	$r=0.686$ $p<0.001$	$r=0.746$ $p<0.001$	-				
7. Overall Covid-19 Hygiene	$r=0.801$ $p<0.001$	$r=0.841$ $p<0.001$	$r=0.806$ $p<0.001$	$r=0.832$ $p<0.001$	$r=0.816$ $p<0.001$	$r=0.865$ $p<0.001$	-			
8. CP	$r=0.380$ $p<0.001$	$r=0.449$ $p<0.001$	$r=0.647$ $p<0.001$	$r=0.417$ $p<0.001$	$r=0.577$ $p<0.001$	$r=0.497$ $p<0.001$	$r=0.582$ $p<0.001$	-		
9. AFC	$r=0.418$ $p<0.001$	$r=0.458$ $p<0.001$	$r=0.515$ $p<0.001$	$r=0.343$ $p<0.001$	$r=0.477$ $p<0.001$	$r=0.459$ $p<0.001$	$r=0.515$ $p<0.001$	$r=0.659$ $p<0.001$	-	
10. HPA	$r=0.553$ $p<0.001$	$r=0.650$ $p<0.001$	$r=0.643$ $p<0.001$	$r=0.631$ $p<0.001$	$r=0.604$ $p<0.001$	$r=0.689$ $p<0.001$	$r=0.751$ $p<0.001$	$r=0.702$ $p<0.001$	$r=0.662$ $p<0.001$	-
11. Overall Coronavirus (Covid-19) Awareness	$r=0.487$ $p<0.001$	$r=0.566$ $p<0.001$	$r=0.686$ $p<0.001$	$r=0.504$ $p<0.001$	$r=0.626$ $p<0.001$	$r=0.600$ $p<0.001$	$r=0.682$ $p<0.001$	$r=0.930$ $p<0.001$	$r=0.843$ $p<0.001$	$r=0.856$ $p<0.001$

CPA=Contagion Precaution Awareness, AFCD=Awareness of Following Current Developments, HPA=Hygiene Precaution Awareness.

*Pearson correlation analysis.

DISCUSSION

The level of awareness of Covid-19 and hygiene behaviors of nursing students of the faculty of health sciences and the relationship between awareness levels and hygiene behaviors were examined in this study.

It is vital to combat such a dangerous and deadly virus that affects the whole world. Therefore, to take the right and necessary steps, it is very important to be aware of what is being faced (Tekgöz Obuz et al., 2021). In the present study, students' mean scores on the overall Coronavirus (Covid-19) Awareness Scale (60.18 ± 14.70) and CPA (34.15 ± 8.06), AFCD (13.64 ± 4.53), and HPA ($12, 39 \pm 3.98$) subscales indicated that students' awareness levels were high. Our findings were consistent with recent studies that were conducted throughout the world to investigate awareness levels about Covid-19 and indicated a good level of knowledge and awareness in their study populations (Altaher et al., 2021; Das et al., 2020). Modi et al. (2020) evaluated the awareness of health department students and healthcare professionals about the Covid-19 disease and practices of infection control related to it in Mumbai and stated that the rate of all groups answering the questions about Covid-19 correctly was 71.2% (Modi et al., 2020). Zhou et al. (2020) conducted a study about the correlation between awareness about Covid-19 and mental health and they stated that awareness of Covid-19 was a protective factor against symptoms of depression and anxiety (Zhou et al., 2020). According to some studies in the literature, Covid-19-related mortality can be reduced through awareness, official information sources can be used to increase awareness, and as a result, high levels of situational awareness will lead to the adoption of health protection behaviors (Qazi et al., 2020; Abdelhafiz et al., 2020; Nazir et al., 2020; Ekiz et al., 2020).

One of the important issues to be aware of about Covid-19 is knowledge and behavior about hygiene. Hygiene is an important issue related to the protection of health at almost every stage of human life and is defined as a science that involves applicable knowledge to sustain the environment and human health (Gürpınar et al., 2020). Developing personal hygiene habits is of vital importance in eliminating health problems and preventing infectious diseases (Ödek, 2018).

Hand hygiene behaviors and handwashing practices of nursing students are expected to be high as they receive education and develop skills in this area. In this study, the mean scores of the students on the overall Covid-19 hygiene scale, which was found as 103.62 ± 21.95 , and its subscales were high. Similar to our study, Altaher et al. stated that most of the participants in their study had high levels of personal hygiene and health practices during the Covid-19 pandemic (Altaher et al., 2021). In another similar study by Yuksel Kacan, it was found that students' scores on the hand hygiene practice were high (Yuksel Kacan, 2021). Also, Karadag et al. found moderate levels of knowledge, practices, perceptions, and beliefs in nurses and students regarding the importance of hand hygiene (Karadag et al., 2016). Similar to our study, it was stated in the literature that the practices for hand washing during the Covid-19 pandemic were high (Kalkan Uğurlu et al., 2020; Işık &

Can, 2021; Ünal et al., 2020). Especially during the pandemic, developing hygiene behaviors and ideally applying them will reduce transmission to a great extent. In this study, female students' mean scores on the "home hygiene," "changing hygiene behaviors in the pandemic," "hand hygiene," "hygiene when coming home from the outside," and "social distance and wear of masks" subscales and the overall "Covid-19 hygiene scale" were higher. Similar to the findings of our study, Ödek (2018) stated that the difference between gender and personal hygiene scores was statistically significant (Ödek, 2018). Also, Yuksel Kacan found that female students had higher scores on the Hand Hygiene Practices Inventory (HHPI) than male students (Yuksel Kacan, 2021). In addition, Çetinkaya et al. stated that the hygiene-safety and travel risk perceptions of males and females differed (Çetinkaya et al., 2020). According to these findings, it can be said that females have more knowledge about hygiene than males and reflect this into their practice. In a study, female participants stated that they would behave more rationally and protect themselves when faced with a risk for human-to-human transmission (Peng et al., 2020). A statistically significant difference was identified between the male and female students' scores regarding only the "HPA" subscale and the overall "Coronavirus (Covid-19) Awareness Scale" in this study. Females had higher scores.

In this study, a statistically significant difference was observed regarding only the "hand hygiene" subscale according to the educational status of mothers. However, the comparison of the education groups of mothers in terms of the overall score of the "Covid-19 Hygiene Scale" did not yield a statistically significant difference. Significant differences were also observed between students' scores on the "social distance and wear of masks," "home hygiene," "shopping hygiene," "hygiene when coming home from the outside," and "hand hygiene" subscales and the overall "Covid-19 Hygiene Scale" according to father's education level. Ödek (2018) reported that the education level of parents and personal hygiene habits did not yield significant differences (Ödek, 2018). Yılmaz and Özkan (2009) concluded that there was a statistically significant difference between the hygiene habits of students and the education levels of their mothers and fathers (Yılmaz and Özkan, 2009). It can be thought that these differences stem from sample groups and sizes.

Education level is associated with access to information and awareness necessary for a healthier life (Usta Atmaca et al., 2015). Studies have shown that education level and income level affect the level of knowledge about the pandemic and that as the income level and education level increase, the level of individuals' knowledge increases, as well (Sizer et al., 2020; Al-Hanawi et al., 2020; Li et al., 2020).

In this study, the effect of the mother and father's education on students' awareness of the Coronavirus (Covid-19) was also examined. A statistically significant difference was observed between the education levels of mothers regarding their mean scores on the overall and subscales of the Coronavirus Awareness Scale. A significant difference was observed between the

education levels of fathers regarding their mean scores on the Coronavirus Awareness Scale and its subscales. As a result of these findings, it can be said that the education level of parents affects the awareness level of the nursing students about the Coronavirus.

In this study, no statistically significant difference was identified between students' mean scores on the overall Covid-19 hygiene scale and its subscales according to income status. Contrary to this study, Kalkan Uğurlu et al. found a statistical difference between income level and scores on handwashing attitudes (Kalkan Uğurlu et al., 2020). Çetinkaya et al. determined that the frequency of hygiene behaviors was higher in schools with a high socioeconomic level (Çetinkaya et al., 2005). This difference may have originated from the differences in the characteristics of the sample group and its size in their study.

In the current study, unlike studies in the literature, no statistically significant difference was identified between income groups regarding their mean scores on the overall "Coronavirus (Covid-19) Awareness Scale" and its subscales. It can be thought that this difference was due to the difference in the sample group and its size.

The results of correlation analysis indicated that there was a moderate and positive correlation between the mean scores on the overall Covid-19 Hygiene Scale and the Coronavirus Awareness Scale. It was observed that nursing students' awareness levels about Covid-19 were related to Covid-19 hygiene behaviors. It was observed that there was an improvement in Covid-19 hygiene behaviors as the level of awareness about the coronavirus (Covid-19) increased.

CONCLUSION

In conclusion, nursing students participating in this study had a high level of awareness and hygiene behaviors about Covid-19. There was a positive and moderate correlation between students' mean scores on the Covid-19 Hygiene Scale and CPA subscale, a moderate, positive correlation with AFCD subscale, and a strong, positive correlation with HPA subscale. Besides, there was a moderate, positive correlation between the mean scores of students on the Coronavirus (Covid-19) Awareness and Covid-19 Hygiene Scales.

It is thought that studies on awareness and hygiene about pandemic diseases are important in measuring the knowledge and behavior of health workers to prevent the Covid-19 pandemic and that these studies will contribute to public health practices related to pandemic diseases. To find an effective solution to the Covid-19 pandemic, it is recommended that more comprehensive studies be carried out on the awareness of prospective health professionals about their knowledge of and behaviors and attitudes towards the disease.

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Conflict of Interest

The author declares no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: ÖT; Material, methods and data collection: ÖT; Data analysis and comments: ÖT; Writing and corrections: ÖT.

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