International Journal of Health Services Research and Policy
www.dergipark.org.tr/ijhsrp

IJHSRP

e-ISSN: 2602-3482

Research Article

THE RELATIONSHIP BETWEEN NURSING STUDENTS' HEALTH PERCEPTIONS AND HEALTH-SEEKING BEHAVIORS

***Esra ANUŞ TOPDEMİR*[1] *Meltem SUNGUR**[2] *Şerife KÖLEOĞLU*[3] *Zeliha BÜYÜKBAYRAM GENÇ*[4]

[1]Dicle University, Atatürk Faculty of Health Sciences, Dep. of Nursing, Diyarbakır, Türkiye
[2]Kilis 7 Aralık University, Yusuf Şerefoğlu Faculty of Health Sciences, Dep. of Nursing, Kilis, Türkiye
[3]Artvin Çoruh University, Şavşat Vocational School, Dep. of Health Care Services, Artvin, Türkiye
[4]Siirt University, Faculty of Health Sciences, Dep. of Nursing Siirt, Türkiye
*Corresponding author: meltem_sungur4633@hotmail.com

Abstract: *Examine the effect of health perception on the health-seeking behaviors of nursing students. This descriptive-correlational study was made with a sample of 314 undergraduate nursing students. The Personal Introduction Form, Health Perception Scale, and Health-Seeking Behavior Scale were used to gather data. Kolmogorov Smirnov normality testing and Q-Q graphs were used to evaluate the data's normal distribution. Descriptive statistics, independent group t-tests, one-way variance (ANOVA), Kruskal-Wallis, and Pearson Correlation analysis were used. Additionally, the Dunn-Bonferroni and Tukey tests were used. According to the students' overall health status, between the mean Accuracy sub-dimension scores, a significant difference was found ($p<0.05$). According to the students' overall health status, the mean scores for self-awareness and general health perception were significant ($p< 0.05$). According to the students' overall health status, the mean scores for the sub-dimensions of professional health-seeking behavior were significant ($p<0.05$). According to the students' initial actions when they or a member of their family became ill, between the mean scores of the self-awareness behavior sub-dimension there was a significant difference ($p<0.05$). According to the student's initial response when they became ill, the difference between the mean scores of the sub-dimension of online health-seeking behavior was found to be statistically significant ($p<0.05$). According to the students' first response when they became ill, it was discovered that there was a significant difference between the mean scores of the conventional health-seeking behavior sub-dimension ($p<0.05$). There was a weak positive correlation between the mean scores of the Health Perception Scale and the Health-Seeking Behaviour Scale and the level of health-seeking behavior increased as the health perception of the students increased. In this direction, it was seen that students' health perception was effective in health-seeking behaviors.*

Keywords: *Nursing, Student, Health Perception, Health-Seeking Behaviour*

Received: January 7, 2024 *Accepted: February 27, 2024*

1. Introduction

All perceptions of one's health, including attitudes and expectations, fall under the definition of health perception. How a person interprets health is related to how that person perceives health. This demonstrates that health is a multifaceted idea [1]. All behaviors that a person adopts, put into practice, and raises their welfare level to be healthy and to protect their health, which is one of their human rights, are considered to be health behaviors, according to the definition of the health promotion model [2].

Health-seeking behaviors are responses to disease states that vary depending on an individual's health information and perceptions, their social and economic status, the sufficiency of the health services provided, and the attitude of the people in charge of these services [3]. Health perception influences health behavior [1]. People with low levels of behavior toward healthy living are said to have negative perceptions of their health [4]. The number of individuals with chronic diseases (such as hypertension, diabetes, etc.) where lifestyle modifications are important is growing daily. Health behaviors with lifestyle changes at the forefront are crucial to lowering exposure to diseases. With a lifestyle change, the individual looks for behaviors that will benefit his or her health [5]. The response to the disease manifests as health-seeking behavior as a result of the person's search for a fix for the issue or to prevent the disease. Despite being a group that is generally considered to be in good health, adolescents and young adults frequently have serious health issues related to depression, stress, anxiety, and reproductive health, as well as poor sleep habits, sexual activity, poor nutrition, lack of physical activity, and use of tobacco, alcohol, and drugs [3,6]. Due to lifestyle factors, university students represent a population with significant health needs. Due to their age, university students are subject to changes in the choices they make regarding their health as well as social and emotional changes. These choices influence how an individual behaves regarding their health. Students who have a positive view of their health will be more capable of managing their health-related behaviors. They will adopt healthy lifestyle practices and be conscious of their obligations while managing their health in this way [1].

The World Health Organisation draws attention to nurses in the stages of maximizing health [3]. Nurses' understanding of health will determine the interactions between nurses, patients, and their relatives [7]. Nursing students who will perform the nursing profession have responsibilities toward other individuals as well as protecting and improving their health [3]. Nursing students need to train to understand how different factors can affect physical and mental functions and how they can prevent or improve health and well-being and provide appropriate care for each patient [7]. Developing people with the knowledge, abilities, and behaviors to maximize health in terms of human needs in both health and illness is one of the goals of nursing education. The health-seeking behaviors developed during this process not only have an impact on the present but also determine how nurses, who will be the future caregivers, will seek out and provide care [3,7]. Because of this, students should be taught the significance of health promotion [1]. The purpose of this study is to examine the relationship between nursing students' health perceptions and health-seeking behaviors.

2. Materials and Methods

2.1. Research Type

Descriptive- correlational study type.

2.2. Population and Sample

The population of the study was 450 undergraduate nursing students from the Nursing Department of a University situated southeast of Türkiye. With a non-probability sampling technique, 314 of those students were chosen for the sample using the snowball sampling method. Being enrolled in a nursing undergraduate program, volunteering to participate, and not having any communication issues were requirements for inclusion in the research sample.

2.3. Research Variables

2.3.1 Dependent Variables

Health Perception Scale (HPS), Health-Seeking Behaviour Scale (HSB), and sub-dimensions score averages.

2.3.2 Independent Variables

Sociodemographic factors (age, gender, grade level, income level), other characteristics are, choosing the nursing profession willingly, presence of chronic disease, presence of chronic disease in the family, general health status, and behavior when sick.

2.4. Data Collection Tools

"Personal Introduction Form, Health Perception Scale, and Health-Seeking Behaviour Scale" were used.

2.4.1 Personal Introduction Form

The form consists of a total of 9 questions including various questions about socio-demographic characteristics and educational processes.

2.4.2 Health Perception Scale (HPS)

Diamond et al. (2007) developed The Health Perception Scale, Kadıoğlu and Yıldız (2012) adapted it into Turkish. It is a five-point Likert-type scale and consists of a total of 15 items [8, 9]. The Scale includes positive and negative statements and 4 sub-dimensions: control center, Accuracy, importance of health, and self-awareness. When scoring the scale, items with negative expressions are reverse coded. According to the subgroups of the scale, the control center consists of 2,3,4,12,13; self-awareness 5,10,14; Accuracy 6,7,8,15; the importance of health 1,9,11 items. Total scores of the scale vary between 15 and 75 and high total scores indicate that the level of health perception of the person is high and low scores indicate that the level of health perception is low. Cronbach alpha coefficient of the scale was found to be 0.77 [8, 9]. The Cronbach alpha coefficient of this study was found to be 0.67.

2.4.3 Health Seeking Behaviour Scale (HSB)

Kıraç's (2019) scale for measuring health-seeking behavior has 12 items and 3 sub-dimensions. These "online, professional, and traditional health-seeking behaviors" are the sub-dimensions [10]. Each item on the scale is scored between 1 and 5 and was created using the Likert method. According to Gallagher and Doherty (2009), online health-seeking behavior, a sub-dimension of the HSB, is the process of consulting various online health resources and professional opinions [11]. People will also use professional health-seeking behavior as one of their methods for finding a cure for their illness. People can go to the nearest medical facility and try to get treated for their discomfort there [10]. Conventional health-seeking behavior, on the other hand, is a remedy-seeking behavior that we call conventional methods other than professional methods; methods that are believed to work, alternative medicine methods, teachers, with doctors, circle of friends, herbal medicines, and old wives' remedies [12]. The Cronbach alpha value of the scale was found to be 0.75 for the whole scale. The Cronbach alpha coefficient of this study was 0.76.

2.5. Application of Data Collection Tools

The research was collected between 01.11.2020 and 28.02.2021 by preparing online survey questions with a total of 40 questions (Personal Introduction Form (13 questions), Health Perception Scale(15 questions) and Health-Seeking Behaviour Scale(12 questions)) was used for collecting data. The COVID-19 pandemic was continuing at the time of the study. Because of this situation online surveys are used for collecting data. Students WhatsApp groups are used for sharing information about the research by researchers. The sample included individuals who agreed to participate in the study.

2.6. Data Analysis

SPSS 25.0 was used (Statistical Package for Social Science). Q-Q graphs and the Shapiro-Wilk normality test were used to assess the normal distribution. Descriptive statistics (mean, standard

deviation, percentages, and numbers), the independent groups' t-test, the one-way variance (ANOVA) test, the Kruskal-Wallis test, and Pearson analysis were used. For multiple comparisons between categories for variables discovered to be significant by Kruskal-Wallis analysis, the Dunn-Bonferroni test was used, and the Tukey test was used for multiple comparisons between categories for variables discovered to be significant by One-Way Variance (ANOVA) analysis. The accepted statistical significance level was 0.05.

2.7. Ethical Aspects of the Study

Ethics committee approval dated 22.10.2020 and numbered 40 was obtained from a non-invasive clinical research ethics committee of the medical faculty of a university to conduct the research.

The directorate of nursing department of the university gave written consent, and the students gave both verbal and written consent. The Informed Consent Form was used to obtain written consent and contained information about the study's voluntary nature, participants' right to withdraw at any time, and the confidentiality of their names. The principles of the Helsinki Declaration were followed in the conduct of this study.

2.8. Limitations

It is thought that the research was conducted in a single center may constitute the limitation of the research. The other limitation of the study is Covid-19 pandemic was continuing at the time of the study, and because of that the results may be affected by this situation.

3. Results

Distribution of students according to descriptive characteristics are shown in Table 1.

Table 1. Distribution of Students According to Descriptive Characteristics (n:314)

Descriptive characteristics of the students	**n**	**(%)**
Gender		
Female	217	69.1
Male	97	30.9
Grade Level		
1st Grade	90	28.7
2nd Grade	104	33.1
3rd Grade	57	18.2
4th Grade	63	20.1
The status of choosing the nursing profession willingly		
Yes	134	42.7
No	55	17.5
Partially	125	39.8
Income status		
Low income	119	37.9
Moderate income	172	54.8
High income	23	7.3
Presence of chronic disease		
Yes	24	7.6
No	290	92.4
Presence of chronic disease in the family		
Yes	152	48.4
No	162	51.6

Table 1 Continued.

Descriptive characteristics of the students	**n**	**(%)**
General health status		
Very good	27	8.6
Good	150	47.8
Moderate	130	41.4
Bad	5	1.6
Very bad	2	0.6
The first thing you do when you or someone close to you gets sick		
I'll look up the disease on the internet	99	31.5
I/we go to the family health center	50	15.9
I/we go to the hospital	90	28.7
I/we use medicines/herbal tea etc. available at home	75	23.9
Age	$\bar{X} \pm$ **SD** 20.96±2.49	

SD: Standard deviation; $\bar{X}$= Mean

The mean age of the students was 20.96±2.49 years. In addition, 69.1% of the participants were female, 33.1% were in the second grade, 42.7% chose their profession willingly, 54.8% had a moderate income, 92.4% did not have any chronic disease, 48.4% had a chronic disease in their family, 47.8% had a good general health status, 31.5% of the participants' first behavior when they or a member of their family got sick was to search for the disease on the internet (Table 1).

Mean scores of students' health perception scale and health-seeking behaviour and scale are shown in Table 2.

Table 2. Mean Scores of Students' Health Perception Scale and Health-Seeking Behaviour and Scale (n=314)

Scales	**Number of items**	**Min. - Max. Score**	$\bar{X} \pm$ **SD**
Control Centre	5	5-25	17.00±3.33
Accuracy	4	4-20	11.92±2.98
The Importance of Health	3	3-15	11.24±2.04
Self Awareness	3	5-15	10.87±1.94
Total Health Perception	15	34-73	51.07±6.15
Online Health-Seeking Behaviour	6	6-30	18.19±4.39
Professional Health-Seeking	3	4-15	12.19±1.96
Conventional Health-Seeking Behaviour	3	3-15	10.48±2.11
Total Health-Seeking Behaviour	12	19-60	41.58±6.11

SD: Standard deviation; $\bar{X}$= Mean; Min: Minimum; Max: Maximum; HSB; Health-Seeking Behaviour; HPS; Health Perception scale

The mean scores of the control center, Accuracy, importance of health, self-awareness sub-dimensions of the HPS and the mean total scores of the HPS were 17.00±3.33, 11.92±2.98, 11.24±2.04, 10.87±1.94 and 51.07±6.15, respectively. The mean scores of the online health-seeking, professional health-seeking, and conventional health-seeking behavior sub-dimensions of the HSB scale and the total mean scores of HSB were found to be 18.19±4.39, 12.19±1.96, 10.48±2.11 and 41.58±6.11, respectively (Table 2).

Table 3. Comparison of the Descriptive Characteristics of the Students and the Mean Scores of Health Perception and Health Seeking Behaviour Scales (n=314)

Descriptive Features	Total and Subscales of HPS (Mean±SD)					HSB Total and Subscales (Mean±SD)			
	Control Centre	Accuracy	The Importance of Health	Self-Awareness	Perception of General Health	Online Health-Seeking Behaviour	Professional Health-Seeking	Conventional Health-Seeking Behaviour	General Health-Seeking Behaviour
Gender									
Female	17.15±3.34	11.87±2.80	11.07±1.98	10.73±1.78	50.83±5.76	18.91±4.30	12.20±1.85	10.56±1.89	41.68±6.06
Male	16.73±3.30	12.04±3.35	11.61±2.13	11.20±2.24	51.59±6.95	18.89±4.62	12.15±2.21	10.31±2.53	41.37±6.23
Statistical Testing and	t=1.03	t=-0.45	t= -2.17	t=-2.00	t=-1.01	t= 0.03	t=0.21	t=0.93	t=0.42
Significance	p=0.30	p=0.65	p=0.03	p=0.04	p=0.31	p=0.97	p=0.82	p=0.34	p=0.67
Grade									
1st grade[a]	17.66±3.47	11.75±3.29	11.51±2.14	10.78±2.13	51.72±7.31	18.70±5.41	12.20±2.14	10.47±2.21	41.37±6.71
2nd grade[b]	17.25±3.24	11.62±2.82	11.02±1.94	10.87±1.89	50.77±5.27	19.25±3.84	12.44±1.71	10.59±2.06	42.28±5.41
3rd grade[c]	15.94±3.46	12.08±2.69	11.40±2.08	10.78±1.86	50.22±6.12	18.68±4.20	12.01±2.05	10.19±2.27	40.89±6.90
4th grade[d]	16.69±2.91	12.52±2.96	11.07±2.01	11.09±1.82	51.39±5.72	18.85±3.82	11.92±1.99	10.58±1.91	41.36±5.53
Statistical Testing and	F=3.54	F=1.35	F=1.14	F=0.36	F=0.82	F=0.32	F=1.11	F=0.50	F=0.76
Significance	p=0.01 a-c*	p=0.25	p=0.33	p=0.78	p=0.48	p=0.80	p=0.34	p=0.67	p=0.51
The status of choosing the nursing profession willingly									
Yes	16.93±3.58	11.94±3.01	11.40±1.99	11.14±1.93	51.42±6.56	18.50±4.60	12.06±2.18	10.50±2.05	41.06±6.68
No	16.61±3.59	12.12±3.10	11.12±2.37	10.67±1.99	50.54±6.57	19.00±4.98	12.32±1.94	10.78±2.47	42.10±7.27
Partially	17.29±2.90	11.81±2.90	11.12±1.95	10.68±1.91	50.92±5.50	19.31±3.85	12.26±1.72	10.34±2.00	41.92±4.77
Statistical Testing and	F=0.87	F=0.21	F=0.69	F=2.15	F=0.45	F=1.11	F=0.48	F=0.82	F=0.87
Significance	p=0.41	p=0.80	p=0.50	p=0.11	p=0.63	p=0.32	p=0.61	p=0.44	p=0.42
Income status									
Low income[a]	17.05±3.19	11.35±2.83	10.96±2.12	10.63±2.11	50.00±5.73	19.00±4.31	12.26±1.88	10.57±1.99	41.84±6.06
Moderate income[b]	17.06±3.47	12.43±2.88	11.50±1.96	11.06±1.82	52.06±6.42	18.86±4.48	12.09±2.04	10.31±2.24	41.27±6.36
High income[c]	16.56±3.01	11.13±3.74	10.73±2.00	10.69±1.79	49.13±4.85	18.78±4.31	12.52±1.78	11.26±1.48	42.56±4.16
Statistical Testing and	KW= 0.73	KW= 8.15	KW= 6.21	KW= 3.78	KW= 10.50	KW= 0.59	KW= 1.14	KW= 3.88	KW= 1.67
Significance	p=0.69	p=0.01 a-b*	p=0.04 a-b*	p=0.15	p=0.00 b-c*	p=0.74	p=0.56	p=0.14	p=0.43

Table 3. Continued.

Chronic disease status									
Yes	17.29±4.44	12.00±3.31	10.66±3.18	10.83±2.18	50.79±7.30	18.66±5.91	12.70±1.75	10.25±1.89	41.62±7.58
No	17.00±3.23	11.92±2.95	11.29±1.92	10.88±1.92	51.09±6.06	18.93±4.25	12.14±1.97	10.50±2.13	41.58±5.99
Statistical Testing and	t=0.41	t=0.12	t= -1.44	t=-0.11	t=-0.23	t= -0.28	t=1.32	t=-0.57	t=0.03
Significance	p=0.68	p=0.90	p=0.15	p=0.90	p=0.81	p=0.77	p=0.18	p=0.56	p=0.97
Chronic disease status in the family									
Yes	17.00±3.28	11.80±2.89	11.05±2.01	10.80±1.92	50.67±6.06	19.40±3.99	12.34±1.70	10.75±1.96	42.50±5.39
No	17.04±3.38	12.04±3.06	11.41±2.06	10.94±1.96	51.45±6.23	18.44±4.70	12.04±2.18	10.24±2.22	40.73±6.62
Statistical Testing and	t=-0.11	t=-0.71	t= -1.56	t=-0.61	t=-1.12	t= 1.97	t=1.32	t=2.14	t=2.58
Significance	p=0.90	p=0.47	p=0.11	p=0.53	p=0.26	p=0.05	p=0.18	p=0.03	p=0.01
General health status									
Very good[a]	17.48±3.30	13.74±3.49	11.48±2.75	12.03±1.97	54.74±7.09	19.33±6.00	12.62±2.81	10.62±3.28	42.59±8.21
Good[b]	17.46±3.01	12.12±2.90	11.42±1.77	11.03±1.82	52.04±5.73	18.67±3.96	12.24±1.72	10.36±1.81	41.28±5.31
Moderate[c]	16.48±3.43	11.44±2.70	11.05±2.06	10.44±1.95	49.43±5.89	19.09±4.36	11.98±1.94	10.55±2.10	41.63±6.16
Bad[d]	15.00±6.63	8.20±2.38	11.20±1.64	11.20±2.58	45.60±5.59	21.20±4.65	14.40±1.34	12.20±2.94	47.80±7.36
Very bad[e]	17.50±6.36	13.50±6.36	7.50±6.36	11.00±0.00	49.50±6.36	13.50±10.60	10.00±4.24	9.00±0.00	32.50±14.84
Statistical Test and	KW= 7.23	KW= 18.11	KW= 4.50	KW= 16.61	KW= 26.55	KW= 3.41	KW= 13.12	KW= 5.83	KW= 6.35
Significance	p=0.12	p=0.00 a-d*	p=0.34	p=0.00 a-c*	p=0.00 a-c*	p=0.49	p=0.01 c-d*	p=0.21	p=0.17
The first thing you do when you or someone close to you gets sick									
I search for the disease on the Internet[a]	17.05±3.15	11.50±2.89	11.26±1.80	10.55±1.94	50.37±5.84	19.75±3.58	12.10±1.97	10.70±2.14	42.56±5.43
I/we go to the family health centre[b]	17.28±3.42	12.02±2.83	11.26±1.94	11.00±1.59	51.56±5.11	17.92±5.16	12.34±2.27	10.38±1.86	40.64±6.67
I/we go to hospital[c]	16.82±3.45	12.57±3.03	11.41±2.28	11.35±2.08	52.16±6.96	19.08±4.63	12.45±1.79	9.97±2.37	41.52±6.69
I/we use medicines/herbal teas etc. at home[d]	17.05±3.38	11.64±3.05	11.01±2.12	10.65±1.89	50.36±6.04	18.24±4.35	11.89±1.92	10.88±1.78	41.01±5.77
Statistical Test and	F=0.21	F=2.37	F=0.51	F=3.18	F=1.82	F=2.74	F=1.28	F=3.06	F=1.47
Significance	p=0.88	p=0.07	p=0.66	p=0.02 a-c*	p=0.14	p=0.04 a-b*	p=0.28	p=0.02 c-d*	p=0.22

SD: Standard deviation; $\bar{X}$= Mean; HSB; Health-Seeking Behaviour; HPS; Health Perception Scale; F: ANOVA test; t: Independent t-test; KW: Kruskal-Wallis test; p: considered statistically significant ($p<0.05$). * Dunn-Bonferroni tests

According to gender, between the mean scores for the importance of health and the self-awareness sub-dimensions, there was a statistically significant difference ($p<0.05$). According to the student's grades, a significant difference was between the mean scores for the control center sub-dimension. When the Tukey multiple comparisons were used to determine which group the difference originated from, it was discovered that a significant difference was between first-grade and third-grade students, with the first graders scoring higher on the control center sub-dimension ($p<0.05$). The mean scores of the accuracy and importance of the health sub-dimensions and the perception of overall health according to income status there was a significant difference. There was a significant difference between moderate income and low income, and the score of moderate income was higher ($p<0.05$), according to the results of the Dunn-Bonferroni multiple comparison. According to the students' income status, a significant difference was found between the mean general health perception scores. According to the results of the Dunn-Bonferroni multiple comparison, a statistically significant difference was found between those whose income was moderate or high those whose income was low, and the score of those with moderate income was higher ($p<0.05$). It was found that there was a significant difference between the mean accuracy scores for each of the students' general health statuses. This was attributed to those with very good and poor general health status, and those with good general health status had a higher score ($p<0.05$), according to the results of the Dunn-Bonferroni multiple comparisons. According to the student's general health status, between the mean scores for self-awareness and general health perception, a statistically significant difference was found. According to the results of the Dunn-Bonferroni multiple comparisons, those who had a good general health status were responsible for the difference and their score was higher ($p<0.05$). According to the prevalence of chronic disease in the family, between the mean scores of conventional health-seeking behavior sub-dimensions, general health-seeking behavior, and online health-seeking behavior there was a significant difference ($p<0.05$). According to the students' overall health status, it was found a significant difference between the mean scores for the sub-dimensions of professional health-seeking behavior. This situation was brought about by people with moderate to poor general health status, and people with moderate general health status had a higher score ($p< 0.05$) in the Dunn-Bonferroni multiple comparisons. It was found that the difference between the mean scores of the sub-dimension of self-awareness behavior according to the first behavior of the students when they or their families got sick was statistically significant. In the Tukey multiple comparison, it was found that this was due to the situation of researching the disease on the internet and going to the hospital and the score of going to the hospital was higher ($p<0.05$). The difference found between the mean scores of the sub-dimension of online health search behavior according to the first behavior of the students when they got sick was statistically significant. In the Tukey multiple comparisons, it was found that this was due to the situation of researching the disease on the internet and taking it to the family health center, and the score of those who searched for the disease on the internet was higher ($p<0.05$). According to the students' first response when they became ill, it was discovered that there was a significant difference between the mean scores of the conventional health-seeking behavior sub-dimension. In the Tukey multiple comparisons, it was discovered that using medication at home had a higher score ($p<0.05$) than visiting the hospital in causing this situation (Table 3).

Table 4. Examination of the Relationship between the Scale of Health Perception and the Health-Seeking Behaviour Scale Scores of the Students

HSB scale and its subscales	HPS scale and its subscales				
	Control Centre	**Accuracy**	**The Importance of Health**	**Self-Awareness**	**Total General HPS**
Online Health-Seeking Behaviour subscale	r=0.09 p=0.08	r=-0.00 p=0.91	r=0.27 p=0.00	r=0.96 p=0.08	r=0.17 p=0.00
Professional Health-Seeking subscale	r=0.36 p=0.00	r=0.13 p=0.01	r=0.28 p=0.00	r=0.18 p=0.00	r=0.41 p=0.00
Conventional Health-Seeking Behaviour subscale	r=0.03 p=0.49	r=-0.08 p=0.14	r=0.11 p=0.03	r=-0.01 p=0.75	r=0.01 p=0.79
General HSB Total	r=0.19 p=0.00	r=0.01 p=0.83	r=0.32 p=0.00	r=0.12 p=0.03	r=0.26 p=0.00

HSB; Health-Seeking Behaviour; HPS; Health Perception Scale; r: Pearson Correlation; p: considered statistically significant ($p<0.05$).

A positive relationship was found between the students' total general HPS and the importance of the health sub-dimension and the HSB online health-seeking behavior sub-dimension ($p<0.05$). A positive relationship was found between the total general HPS and all its subscales and the HSB professional health-seeking subscale ($p<0.05$). A positive relationship was found between the HPS importance of health sub-dimension and the HSB conventional health-seeking behavior sub-dimension ($p<0.05$). A positive relationship was found between students' total general HPS, control center, the importance of health, self-awareness sub-dimensions, and total HSB ($p<0.05$). It was found that as students' health perception increased, their level of health-seeking behavior increased (Table 4).

4. Discussion

Health perception and health-seeking behavior are affected by various factors. In addition to determining their health perception and health-seeking behaviors with the education they receive, nursing students are thought to be effective in the health perception and health-seeking behaviors of the individuals they will care for in the future [3, 7, 13, 14]. In this direction, in our study, the effect of health perceptions of nursing undergraduate students on health-seeking behaviors was examined.

In the study, the mean total score of the students' HPS was found to be 51.07±6.15. In the study conducted by Çilingir and Aydın, the mean total score of the students' HPS was at a moderate level (37.9±6.6) [15]. In a study by Öz Yıldırım et al., health perceptions of students were found to be at a moderate level (42.00±6.44) [16]. In the study of Özsoy and Şentürk, health perceptions of students were found to be at a good level (48.89±5.16) [17]. In another study conducted with students of vocational schools of health services, it was found that their health perceptions were at a good level [18, 19]. The individual's perception of health is based on self-assessment and reveals that the concept of health is multidimensional. However, health perception is very important for improving health, maintaining health, and gaining healthy life behaviors [1, 4, 15]. Considering the literature and our study, the health perceptions of nursing and other health services vocational school students were at medium and good levels. The main reason for this is thought to be a result of the positive effect of the education they receive on their health perceptions.

When the sub-dimensions of HPS were examined in our study, the sub-dimension with the highest mean score (17.00±3.33) was the control center sub-dimension. In this study, there was a significant difference between the first and third grades, and the control center sub-dimension score of the first grades was higher. The center of control sub-dimension reflects the person's confidence in his or her ability to change and improve his or her health, as well as whether they attributes their health to outside forces like luck and fate [8, 9]. It was discovered that the control center sub-dimension had a high mean

score in studies similar to this one [1, 13, 15, 18]. Nursing students had effective health control mechanisms, according to the study's findings and the literature.

No statistically significant difference between gender and the HPS overall score was found in the studies [15, 17, 20]. In this study, it was discovered that between the mean scores of the importance of health and self-awareness sub-dimension for men and women, there was a significant difference. In the Dülger and Seven studies, it was discovered that male students had higher health perceptions than female students [18]. In the study done by Dou and Atasoy, it was discovered that female students had higher health perceptions than male students [21]. According to this theory, how well someone perceives their health is unrelated to their gender, and each person should take personal steps to protect and enhance their health. In our study, the difference between Income status and the mean scores of Accuracy and importance of health sub-dimensions and general health perception was found to be statistically significant. Income status was found to affect students' health perception. In addition, a significant difference was found between those whose Income and expenses were equal and those whose Income was higher than expenses, and the scores of those whose Income and expenses were equal were higher. Demir et al. found in their study that the health perception total score and Accuracy sub-dimension scores of the students who defined the economic status of their families as good were high [13]. In Ağaçdiken Alkan et al.'s study, it was found that the level of Accuracy sub-dimension increased as the Income status increased [22]. In a study, it was reported that the mean scores of the health perception scale of students with poor Income status were higher, but not at the desired level [15]. The economic level of the individual may help him/her to access opportunities such as education and health more easily and help to improve health positively [13, 22, 23]. Although the increase in health perception with increasing Income level is supported by the literature, similar results were obtained in our study. In this direction; increasing Income level will enable students to evaluate their health status more accurately and will be a supportive factor in managing their health.

In this study, the difference between the mean scores of Accuracy and self-awareness sub-dimensions and the mean scores of general health perception according to the general health status of the students was found statistically significant. Students who expressed their general health perception as very good had a higher mean score of general health perception. In the study conducted by Dülger and Seven, it was found that those who defined their health status as very good had a higher mean total score on the health perception scale [18]. In Açıksöz et al.'s study, it was determined that nursing students who defined their health status as good had higher health perception [2]. In similar studies, the health perception of those who described their health status as good was found to be higher [1, 21, 22]. It is thought that defining the general health status as good motivates the individual and affects the health perception positively. It can be said that students with high health perception can evaluate their health without prejudice and thoughts.

The behaviors of an individual who does not feel well or who shows signs and symptoms of a disease and thinks that he/she is in a risk group for a disease to seek medical help are expressed as health-seeking behavior [24,25]. The type or quality of health-seeking behavior shown by individuals is directly effective for early diagnosis, treatment, recovery, and prevention of complications. In this process, receiving professional health support enables the individual to recognize and complete the disease process more accurately [24,25]. In this study, it was found that the most common HSB that students performed when they had health problems was online HSB, followed by professional HSB. In Deniz and Çimen's study, the majority of the students were 25 years of age and younger and the most common health-seeking behavior was professional health-seeking behavior and the lowest was online health-seeking behavior [24]. In the study conducted by Coşkun and Gürsoy, it was determined that 72.6% of the students would go to a health institution when they had a health problem and 47.2% would benefit from the internet and media [25]. When the help-seeking behavior for mental health problems

was examined in Thai medical students, the rate of professional help-seeking behavior was 66%, whereas this rate was 81% in Indian medical students [26]. In the study conducted by Özdemir and Arpacıoğlu, it was found that the online health-seeking behavior of participants in the 31-40 age range was higher than that of participants aged 51 and over [27]. The increasing amount of health-related information on the Internet, the higher digital health literacy of university students, and the fact that young individuals use the Internet and social media more in their daily lives than older individuals cause individuals to exhibit online health search behavior [27-29]. As a result of the literature and this study, younger individuals showed online health search behavior.

According to this study, a statistically significant difference was found between the mean scores of the professional HSB sub-dimension and the general health status of the students, as well as between the mean scores of the conventional health-seeking behavior sub-dimension and the general HSB according to the status of chronic disease in the family The scores of those with a moderate to good general health status were found to be higher, and this difference was attributed to them. In the study conducted by Özdemir and Arpacıoğlu, it was reported that participants with medical or mental illness were disadvantaged in terms of health-seeking behaviors [27]. In a study investigating the status of visiting health websites, it was found that individuals with long-term disability or chronic diseases visited health-related websites more frequently [30]. Poor health perception and the presence of a disease in oneself or one's family indicate that individuals may tend towards health-seeking behaviors to increase their awareness.

In this study, it was found that there was a weak positive correlation between the mean scores of HSB and HPS. It was found that as the health perception of the students increased, the level of health-seeking behavior increased. In the study conducted by Özdemir and Arpacıoğlu, it was reported that there was a statistically significant positive correlation between HSB and the sub-dimensions of the HPS scales [27]. In a study conducted on university students, the total health-seeking behavior scale score of students who perceived their health status as very good was found to be higher [31]. Individual differences in the meaning attributed to health have brought about a differentiation in the perception of health [31]. The way individuals perceive health and illness can affect their health-seeking behavior [32]. In this study, it can be interpreted that students' health perception directs their health-seeking behaviors. It is also thought that students tend to engage in health-seeking behaviors to increase their health perception.

5. Conclusion and Recommendation

The level of health-seeking behavior increased as the student's perception of their health increased, and it was discovered that there was a weakly positive correlation between the mean scores of HSB and HPS of the participants in this study. In this regard, it was made clear that students' health perceptions have an impact on their health behaviors and are crucial for influencing their quality of life to guide their future health-seeking behaviors. Finding the appropriate information and determining the veracity of that information presents a variety of challenges for students [28]. Nursing students should be taught how to evaluate and improve their perceptions of health and health-seeking behaviors during their education [14,15]. Improving students' information-seeking skills and ability to tell the difference between reliable and false information is crucial. Students should be encouraged to favor reputable websites and applications, and the literature should support this to increase the availability and reliability of health-related information on the internet because online search behavior is the most popular method.

Future studies can explore whether providing students with information about their or their family members' illnesses affects their perception of health and their search for health. These studies could offer a new perspective on the topic by comparing differences between grades.

Ethical Statement:

Ethics committee approval (Protocol No:40 Date: 22.10.2020) was obtained from a non-invasive clinical research ethics committee of the medical faculty of a university situated southeast of Türkiye

Conflict of Interest:

The authors declare that there is no conflict of interest.

Funding:

No financial support has been received for this study.

Contribution:

The author's contribution to the study is equal.

References

[1] Özdelikara, A., Alkan, S. A., & Mumcu, N., "Determination of health perception, health anxiety and effecting factors among nursing students", *Bakırköy Tıp Dergisi,* 14(3), 275-282, 2018.

[2] Açıksöz, S., Uzun, Ş., & Arslan, F., "Relationship between perceptions of health status and health promotion behaviors in nursing students", *Gülhane Tıp Dergisi,* 55(3), 181-187, 2013.

[3] Afolabi, M. O., Daropale, V. O., Irinoye, A. I., & Adegoke, A. A., "Health-seeking behavior and student perception of health care services in a university community in nigeria", *Health,* 5, 817-824, 2013. DOI: 10.4236/health.2013.55108.

[4] Tuğut, N., & Bekar, M., "University student's healthy perception state and the correlation of health promotion life style", *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi,* 11(3), 17-26. 2008.

[5] Ayaz, S., Tezcan, S., & Eker, F., "Health promotion behaviors of nursing school students", [In Turkish] *C.Ü. Hemşirelik Yüksek Okulu Dergisi,* 9(2), 2005.

[6] Tran, D.T., & Silvestri-Elmore, A.E., "Healthcare-seeking behaviors in college students and young adults: a review", *Journal of Research in Nursing,* 26, 320 - 338. 2020.

[7] Skar L, & Söderberg S., "Swedish nursing students perception of health: A phenomenoographic study", *Health Education Journal,* 75(4), 385–395, 2016.

[8] Diamond, J. J., Becker, J. A., Arenson, C. A., Chambers, C. V., & Rosenthal, M. P., "Development of a scale to measure adults' perceptions of health: Preliminary findings", *Journal of Community Psychology,* 35(5), 557-561, 2007.

[9] Kadıoğlu, H. ve Yıldız, A., "Validity and reliability of Turkish version of perception of health scale", *Turkiye Klinikleri Journal of Medical Sciences,* 32(1), 47-53, 2012.

[10] Kıraç, R., & Öztürk, Y. E., "Health seeking behavior: scale development study", *Süleyman Demirel Üniversitesi Vizyoner Dergisi,* 12(29), 224-234, 2021.

[11] Gallagher, S. and Doherty, D. T., "Searching for health information online: characteristics of online health seekers", *J Evid Based Med,* 2(2), 99-106, 2009. DOI:10.1111/j.1756-5391.2009.01021.x

[12] Özkorumak E, Güleç H, Kose S et al. "Extra medical ways of help-seeking behaviour in patients with depression: can alexithymia be a contributing factor?" *Klinik Psikiyatri Dergisi,* 9, 161-169, 2006.

[13] Demir, G., Özen, B. & Savaş, M., "Health perception of nursing first grade students", *Sağlık Bilimleri Dergisi*, 30(3), 295-300, 2021. DOI: 10.34108/Eujhs.1040405

[14] Tambağ, H. & Turan, Z., "Effects of public health nursing course on the students' healthy lifestyle behaviors", *Hemşirelikte Araştırma Geliştirme Dergisi,* 14(1), 46-55, 2012. Avaliable: https://dergipark.org.tr/tr/pub/hemarge/issue/52723/695425

[15] Çilingir, D., & Aydın, A., "Department of nursing students' perception of health", *FNJN Florence Nightingale Hemşirelik Dergisi,* 25(3), 167-176, 2017.

[16] Öz Yıldırım, Ö. , Korkmaz, M. & Aydın Avcı, İ., "Investigation of nursing students' rational drug use awareness and health perceptions", *Adnan Menderes Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 5 (2) , 251-260, 2021. DOI: 10.46237/amusbfd.762631

[17] Özsoy, H., & Şentürk, S., "Determining health perceptions and healthy life style behaviors of vocational school of health services students", *İnönü Üniversitesi Sağlık Hizmetleri Meslek Yüksek Okulu Dergisi*, 9(3), 896-913, 2021.

[18] Dülger, H., & Seven, A., "Determination of health perception levels and effecting factors among the healthcare vocational school students: a cross-sectional study", *EJONS International Journal on Mathematic, Engineering and Natural Sciences*, 14, 254-265, 2020.

[19] Köktürk Dalcalı, B., "Spiritual orientation and health perceptions of university students", *J Contemp Med,* 10(4), 591-595, 2020.

[20] Yalnızoğlu Çaka, S., Topal, S., Karakaya Suzan, Ö., & Çınar, N., "The relationship between nursing students' health perception and self-confi dence", *Journal of Human Rhythm,* 3(4), 198–203, 2017.

[21] Doğu, Ö., & Atasoy, I., "Role of gender and other factors on health perceptions of nursing students", *Türkiye Klinikleri Hemşirelik Bilimleri,* 9(2):107-113, 2017.

[22] Ağaçdiken Alkan, S., Özdelikara, A. & Mumcu Boğa, N., "Determination of nursing students" health perception", *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi,* 6 (2), 11-21, 2017. Avaliable: https://dergipark.org.tr/tr/pub/gumussagbil/issue/32272/359548

[23] Richter, M., Moor, I., & van Lenthe, F. J., "Explaining Socioeconomic Differences in Adolescent Self-Rated Health: The Contribution of Material, Psychosocial and Behavioural Factors", *Journal of Epidemiology and Community Health*, 66(8), 691–697, 2012. https://doi.org/10.1136/jech.2010.125500

[24] Deniz, S., & Çimen, M., "A study on health-seeking behaviour", *Uluslararası Sağlık Yönetimi ve Stratejileri Araştırma Dergisi,* 7(3), 639-646, 2021.

[25] Coşkun, N. & Gürsoy, E., "Factors affecting university youth's sexual health search behavior: A descriptive study", *International Social Sciences Studies Journal*, 6(58), 1026-1036, 2020. http://dx.doi.org/10.26449/sssj.2106

[26] Seera, G., Arya, S., Sethi, S., Nimmawitt, N., & Ratta-Apha, W., "Help-seeking behaviors for mental health problems in medical students: Studies in Thailand and India", *Asian Journal of Psychiatry*, 54, 102453, 2020. https://doi.org/10.1016/j.ajp.2020.102453

[27] Özdemir, D., & Arpacıoğlu, S., "Effect of social media use, health perception and health search behavior on the coronavirus fear", *Psikiyatride Güncel Yaklaşımlar*, 12, 364-381, 2020.

[28] Dadaczynski, K., Okan, O., Messer, M., Leung, A., Rosário, R., Darlington, E., & Rathmann, K., "Digital Health Literacy and Web-Based Information-Seeking Behaviors of University Students in Germany During the COVID-19 Pandemic: Cross-sectional Survey Study", *Journal of Medical Internet Research,* 23(1), e24097, 2021. https://doi.org/10.2196/24097

[29] Hsu W. C., "Undergraduate Students' Online Health Information-Seeking Behavior during the COVID-19 Pandemic, International Journal of Environmental Research and Public Health", 18(24), 13250, 2021. https://doi.org/10.3390/ijerph182413250

[30] Andreassen, H. K., Bujnowska-Fedak, M. M., Chronaki, C. E., Dumitru, R. C., Pudule, I., Santana, S., & Wynn, R., "European Citizens' Use of E-health Services: A Study of Seven Countries", *BMC Public Health,* 7(1), 1-7, 2007.

[31] Çağatay, A., Kıbrıs, Ş., Kızılkaya, S., "Online health search behavior: A comparative study", *Bandırma Onyedi Eylül Üniversitesi Sağlık Bilimleri ve Araştırmaları Dergisi,* 5(1), 65-73, 2020. doi:10.46413/boneyusbad.1263753

[32] Mansur, F., & Ülke, R., "The effect of health literacy level on health search behavior and healthy lifestyle behaviors", *Hacettepe Sağlık İdaresi Dergisi*, 25(1), 127-138, 2022.