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THE IMPACT OF INDIVIDUAL HEALTH PERCEPTION ON CYBERCHONDRIA BEHAVIOR

BİREYSEL SAĞLIK ALGISININ SİBERKONDRİ DAVRANIŞI ÜZERİNDEKİ ETKİSİ

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ABSTRACT

Objectives: The aim of this study is to determine the effect of individual health perception on cyberchondria tendency and to identify differences in individual health perception and cyberchondria tendency according to various demographic variables.

Material and Methods: The sample of the study consists of 400 individuals over the age of 18, residing in Istanbul, Turkiye. The individual health perception scale and cyberchondria severity scale were used as data collection tools. The t-test and ANOVA tests for difference analyses, correlation analysis to examine the direction of the relationship and multiple connection problem between sub-dimensions of the scale, and multiple regression analysis were used to determine the effect of individual health perception on cyberchondria tendency.

Results: The results indicate that participants exhibit sub-average tendencies towards cyberchondria but maintain favorable perceptions of their health. Upon examination, no significant variations in health perception were identified based on marital status, gender, age, income level, place of residence, healthcare facility type, or annual frequency of hospital visits (p>0.05). Notably, individuals with a bachelor's degree manifested more pronounced cyberchondria behaviors compared to those with associate degrees or high school diplomas (p<0.05). The data also underscores a significant correlation between individual health perceptions and the propensity towards cyberchondria (p<0.05).

Conclusion: It was concluded that 49% of individuals' cyberchondria levels are explained by health perception. It was found that the education factor had a significant effect on individual health perception and cyberchondria tendency, but demographic factors such as gender, age, income, type of settlement, type of hospital, and annual hospital visit status did not have any effect. It is recommended to design customized informational campaigns or interventions aimed at specific educational groups to correct potential misunderstandings and improve health literacy.

Keywords: Health perception, disease perception, cyberchondria, digital health

ÖZ

Amaç: Bu çalışmada bireysel sağlık algısının siberkondri eğilimi üzerindeki etkisinin belirlenmesi ve çeşitli demografik değişkenlere göre bireysel sağlık algısı ve siberkondri eğilimin farklılıklarının belirlenmesi amaçlanmıştır.

Gereç ve Yöntemler: Araştırmanın örneklemi, Türkiye'nin İstanbul ilinde ikamet eden 18 yaş üstü 400 kişiden oluşmaktadır. Veri toplama aracı olarak bireysel sağlık algısı ve siberkondri ciddiyet ölçeği kullanılmıştır. Verilerin analiz edilmesinde, fark analizleri için t testi ve ANOVA testi, ölçek alt boyutları arasındaki ilişkinin yönünü ve çoklu bağlantı sorununu incelemek için korelasyon analizi ve son olarak bireysel sağlık algısının siberkondri eğilimi üzerindeki etkisini belirlemek amacıyla çoklu regresyon analizi kullanılmıştır.

Bulgular: Bireylerin siberkondri eğilimlerinin ortalamanın altında olduğu, sağlık algılarının ise iyi düzede olduğu bulunmuştur. Medeni duruma, cinsiyete, yaşa, gelir durumuna, yerleşim türü, hastane türüne ve yıllık hastaneye gitme sayısına göre bireylerin sağlık algısının değişmediği görülmektedir (p>0,05). Lisans mezunu bireylerin siberkondri davranışları, önlisans ve lise mezunu bireylere göre daha yüksek bulunmuştur (p<0,05). Bireysel sağlık algısının siberkondri eğilimi üzerinde anlamlı şekilde etkili olduğu tespit edilmiştir (p<0,05).

Sonuç: Bireylerin, siberkondri düzeylerinin %49'unun sağlık algısı tarafından açıklandığı sonucuna ulaşılmıştır. Bireysel sağlık algısı ve siberkondri eğiliminde eğitim faktörünün önemli etkisi olduğu, ancak cinsiyet, yaş, gelir, yerleşim türü, hastane türü ve yıllık hastaneye gitme durumu gibi demografik faktörlerin herhangi bir etkisi olmadığı tespit edilmiştir. Belirli eğitim gruplarına yönelik potansiyel yanılgıları düzeltmek ve sağlık okuryazarlığını artırmak amacıyla özelleştirilmiş bilgilendirme kampanyaları veya müdahaleler tasarlamak faydalı olacağı öngörülmektedir.

Anahtar Kelimeler: Sağlık algısı, hastalık algısı, siberkondri, dijital sağlık

INTRODUCTION

With the widespread use of the internet and digital devices, individuals have become more dependent on online information to alleviate their health-related concerns. The internet has facilitated people's access to health-related information. However, this easy access has also been associated with a range of negative consequences. In recent years, cyberchondria, a phenomenon where individuals tend to excessively search for online health-related information, often leading to heightened anxiety and stress levels, has emerged (1). Research found that individual health perceptions and cognitive and emotional evaluations regarding one's own health status, have a significant impact on cyberchondria behavior (2). Understanding the relationship between individual health perception and cyberchondria behavior is crucial in addressing potential negative outcomes of excessive online searches for health information (3). Cyberchondria is a term used to describe the excessive use of the internet to search for health information. Individuals with cyberchondria often worry excessively about their health and spend hours each day searching for information about possible illnesses. This anxiety can lead to stress and even depression (4).

Cyberchondria refers to the excessive search for medical care and health information in the online environment, triggered by anxiety and distress about a person's health condition (5). While online health information searching is a common behavior, cyberchondria becomes maladaptive when accompanied by excessive and escalating anxiety (6). The concept of cyberchondria has drawn attention in both clinical and research environments due to its association with increased distress, anxiety levels, and interference with daily activities (7). It is not just a tendency to search for health-related information on the internet, but also an abnormal behavior pattern and emotional state (8). However, it is important to note that cyberchondria is not a separate diagnostic category, but a behavior pattern observed among individuals with higher health anxiety (1, 2, 6, 7). Understanding the factors contributing to cyberchondria behavior is critical for developing effective interventions and strategies. Previous research examined various factors that could contribute to the development and maintenance of cyberchondria, including personality traits, health-related metacognition, cognitive bias, and emotional dysregulation (9). Studies have also explored the relationship between cyberchondria and other constructs such as self-esteem, health anxiety, and obsessive-compulsive symptoms (2).

Individual health perception refers to how people perceive their own health and well-being. People with a negative health perception are more likely to worry about their health and engage in unhealthy behaviors such as excessive internet use (10). There are several reasons why people with a negative health perception are more likely to be cyberchondriacs. Firstly, the internet provides people with a way to seek reassurance about their health. Secondly, the internet provides access to a wealth of information about health, which can be overwhelming for individuals with a negative health perception. Thirdly,

the internet provides a sense of control and mastery, which may appeal to people who feel they have little control over their health (4, 8, 11, 12). Cyberchondria refers to the excessive and obsessive search for online health information (13). Cyberchondria is particularly prevalent among individuals with high health-related anxieties and can lead to unnecessary utilization of health services and a decrease in overall quality of life (5).

Research suggests that health perceptions may play a pivotal role in cyberchondriac behavior (2). Individual health perception is defined as an individual's evaluation of their own health status and quality. Individuals with a negative health perception are prone to excessively and obsessively searching for online health information. This heightens health-related anxieties and leads to a worsening of cyberchondriac behavior (14). This article aims to contribute to the existing literature by examining the effect of health perceptions on cyberchondriac behavior. By investigating how individuals perceive their own health and the connection to cyberchondria, this study aims to illuminate the psychological factors underlying the issue. The findings derived from this research may be significant in understanding and addressing cyberchondria in clinical and preventive contexts. Understanding this issue can aid in the development of strategies to prevent and treat cyberchondriac behavior. It could also be crucial in optimizing the use of health services and improving the overall quality of life.

Developing research hypotheses

The following model has been developed within the scope of the literature.

Under the model shown in Figure 1, the following hypotheses were developed.

H1: An individuals' health perception affects cyberchondria behavior.

While examining the main hypothesis, the influence of the individual health perception's sub-dimensions (Control Center/Precision/Importance of Health/Self-Awareness) on the sub-dimensions of cyberchondria (Compulsion/Extreme Anxiety/Extremism/Soothe/Distrust of the Doctor) has also been tested.

MATERIALS and METHODS

Population and sample

The population of the study consists of individuals aged 18 and over living in Istanbul. In the literature, there are criteria for determining the sample in the study. In the literature, it is accepted that when the population exceeds 100,000, 384 participants are considered to represent the population (15, 16). Based on this criterion, a minimum of 384 individuals is required for a 95% confidence interval.

In the research, a total of 411 participants were engaged, and based on the predefined criteria, this sample size was deemed adequate. However, 11 respondents were excluded from the analysis due to consistently selecting the same options or providing inconsistent answers. The study employed the conve-
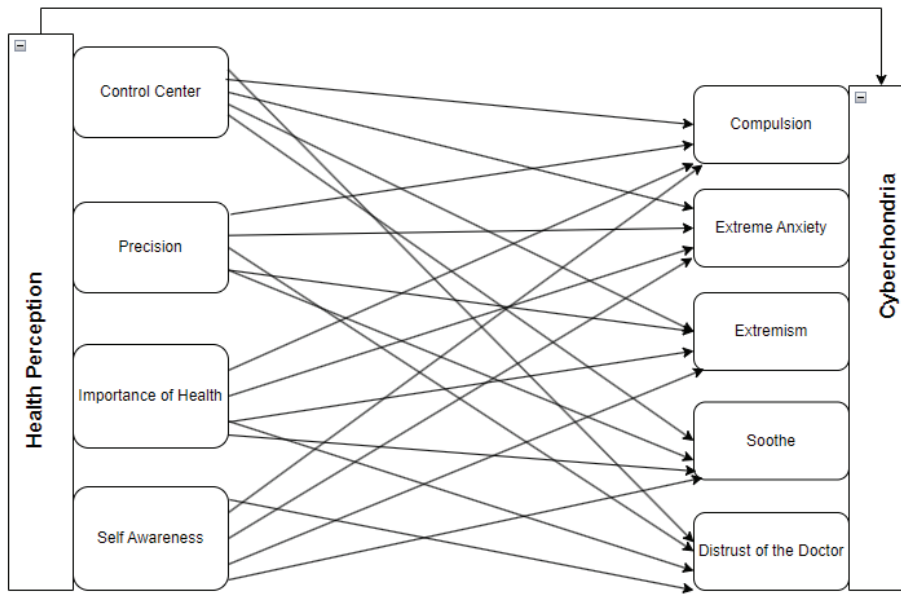
Figure 1: Research model

nience sampling method for participant selection, primarily due to its efficiency, simplicity, and cost-effectiveness (16).

Data collection tools
In the study, a questionnaire was used as the data collection tool, and the questionnaire consists of three sections.

Demographic information form: This form was created by the researchers. The form contains a total of eight questions, including the gender of the participants, educational level, income status, the type of residence where they spend their lives, marital status, age, annual average of hospital visits, and the type of hospital visited.

Cyberchondria severity scale: This scale was developed by McElroy and Shevlin (17). The scale consists of five dimensions and 33 statements. The dimensions are compulsion (eight statements), excessive worry (eight statements), excessiveness (eight statements), reassurance seeking (six statements), and distrust of medical profession (three statements). The Turkish validity and reliability study of the scale was conducted by Uzun and Zencir (18).

The Cronbach's alpha coefficient of the scale was determined as 0.962. Since this value is in the range of 0.80≤α<1.00, the scale is highly reliable. The Cronbach's alpha coefficients of the sub-dimensions of the scale; the compulsion sub-dimension was determined as 0.905, the excessive worry sub-dimension as 0.868, the excessiveness sub-dimension as 0.793, the reassurance seeking sub-dimension as 0.771, and the distrust of the medical profession sub-dimension as 0.718.

Individual health perception scale: The scale was developed by Diamond et al.; the Turkish validity and reliability study was

conducted by Kadıoğlu and Yıldız (19, 20). The scale consists of 15 items and four sub-dimensions. The scale is a five-point Likert type. A maximum of 75 points and a minimum of 15 points can be obtained from the scale. A high score indicates high health perception, and a low score indicates low health perception.

The Cronbach's alpha coefficient of the scale was determined as 0.982. Since this value is in the range of 0.80≤α<1.00, the scale is highly reliable. The Cronbach's alpha coefficients of the sub-dimensions of the scale; the control center sub-dimension was determined as 0.706, the certainty sub-dimension as 0.700, the importance of health sub-dimension as 0.810, and the self-awareness sub-dimension as 0.801.

Collection and analysis of research data
After obtaining ethical approval for the study, the data was collected online from individuals living in Istanbul between the dates of June 16, 2023, and July 25, 2023. The survey was initially transferred to Google Drive in an appropriate manner. A Google survey form was created. The linked survey form was first tested by researchers on their personal phones to ensure functionality. Finally, the survey link was distributed to individuals residing in Istanbul via the Whatsapp application. The link was shared in various groups through university students living in Istanbul.

The study addresses individual health perception as the independent variable and the cyberchondria tendency as the dependent variable. The research type of this study is quantitative and correlational.

In an analysis of the data obtained, the normality distribution was first checked to decide which method to use. For this purpose, the study examined whether the average scores of

the scales and subdimensions show normal distribution. The skewness and kurtosis coefficient values, which are indicators of normality of the obtained data, were considered in making this decision. The skewness and kurtosis values of both scales and subdimensions show a distribution within the normal limits (+2.114/-2.297). Additionally, the homogeneity of variances was examined, and the p-values for the sub-dimensions of the scale were generally greater than .05. Based on this, the variances are homogeneously distributed (21).

In the study, parametric methods, specifically T-tests and ANOVA tests, were conducted to uncover differences among participants based on demographic variables. Before performing regression analysis, a correlation analysis was conducted to examine whether there was a multicollinearity problem between the subdimensions of the scale. To reveal the effect of the participants' levels of health perception on cyberchondria levels, a multivariate regression analysis was conducted. The IBM SPSS 25 package program was used in performing the analysis.

Ethical declarations in the research

After determining the purpose and scope of the study, necessary forms were prepared to evaluate its ethical suitability and an application was made to the Artvin Çoruh University Scientific Research and Publication Ethics Committee (Date: 07.06.2023, No: 2023/6-18). For the individuals aged 18 and above who participated in the research, a short paragraph was included at the beginning of the survey to state the purpose of the study and their informed consent was obtained.

RESULTS

When looking at the demographic characteristics of the individuals participating in the study, it shows that 53.8% (n:215) are male, 46.3% (n:185) are female, 49.8% (n:199) are between the ages of 18-25. 27.5% (n:110) are 26-35 years old, 16.8% (n:67) are 36-45 years old, 4.3% (n:17) are 46-55 years old and 1.8% (n:7) are 56 years old and above. Looking at the income situation, 1.5% (n:6) stated that their income is very bad, 8.8% (n:35) said their income is bad, 59.0% (n:236) said their income is at a medium level, 28.2% (n:113) said their income is good and 2.5% (n:10) said their income is very good. It shows that 7.8% (n:31) of the participant individuals live in a village,

20.3% (n:83) in a district/town, 45.0% (n:180) in a city center and 26.5% (n:106) in a metropolis. When looking at the educational status of the participants, it shows that 4.8% (n:19) are primary/middle school graduates, 12.0% (n:48) are high school graduates, 14.5% (n:58) are associate degree graduates, 64.3% (n:257) are undergraduate graduates and 4.5% (n:18) are postgraduate graduates. Participants generally receive services from public hospitals (46.0%, n:184), private hospitals (23.8%, n:95), university hospitals (11.8%, n:47), and city hospitals (18.5%, n:74). When evaluated in terms of the marital status of the individuals, it shows that 40.0% (n:160) are married and 60% (n:240) are single. In terms of participants' annual hospital visits, it shows that 63.5% (n:254) visit the hospital between 0-4 times, 26.5% (n:106) 5-8 times, and 10.0% (n:40) visit the hospital more than 9 times a year.

Table 1 provides basic values related to the sub-dimensions of the scale. In general, the variables of compulsion (1.51), excessive worry (2.32), and reassurance seeking (2.31) have an average of "never", excessiveness (2.87), locus of control (2.60), and certainty (2.99) have an average of "sometimes", and distrust of medical profession (3.95), importance of health (3.74), and self-awareness (3.71) have been answered as "usually" (Table 1).

In the study, a t-test was conducted to determine differences between the two groups. The results obtained are given in Table 2.

Table 1: Descriptive statistics related to factors

Factors	n	Mean	Standard deviation
Compulsion	400	1.51	0.70506
Extreme anxiety	400	2.32	0.84185
Extremism	400	2.87	0.76248
Soothe	400	2.31	0.81558
Distrust of the doctor	400	3.95	0.97310
Control center	400	2.60	0.77075
Precision	400	2.99	0.80119
Importance of health	400	3.74	0.62594
Self-awareness	400	3.71	0.68647

n: Total number

Table 2: Differences by gender and marital status

Sub dimensions	Variable	n	Mean	t	p
Health perception	Woman	185	3.12	1.419	0.157
	Male	215	3.18		
Cyberchondria	Woman	185	2.40	0.029	0.977
	Male	215	2.41		
Health perception	Married	160	2.41	0.346	0.730
	Single	240	2.39		
Cyberchondria	Married	160	3.16	0.330	0.739
	Singe	240	3.14		

n: Total number, t: T Value, P: Level of significance

In Table 2, the individuals' health perception and cyberchondria behaviors do not change according to gender (p>0.05).

In Table 2, the individuals' health perception and cyberchondria behaviors do not change according to marital status (p>0.05).

In the study, an Anova test was conducted to reveal differences between three or more groups. The results obtained are given in Table 3.

In Table 3, the individuals' health perception and cyberchondria behaviors do not change according to variables such as age, income status, type of residence, type of hospital generally received service from, and average annual hospital visit situation (p>0.05). However, the health perception and cyberchondria behaviors change according to the individuals' level of education (p<0.05). To discern this variance, the choice of which Post Hoc multiple comparison tests to utilize is determined by examining the homogeneity test. If the p-value of the homogeneity test is greater than 0.05, it is concluded that the population variances are the same (homogeneous). If the

p-value of the homogeneity test is less than 0.05, it is decided that the population variances are different (21). Based on the conducted homogeneity test results, Levene's statistic for the perception of health was found to be 1.953 with a p-value of 0.071. The Levene's statistic for the perception of cyberchondria was determined to be 1.495 with a p-value of 0.178. Accordingly, it was decided that the variances for both the perception of health and cyberchondria are the same, indicating homogeneity. In this context, due to the greater sensitivity of the LSD test in producing results, the study decided to employ the LSD test.

It was found that the health perception levels of individuals with associate degrees (3.27) were higher than those with bachelor's degrees. Additionally, it was determined that the cyberchondria behaviors of individuals with bachelor's degrees (2.44) were at a higher level compared to those with associate (2.27) and high school (2.25) degrees (Table 3).

The results of the correlation analysis conducted for the subdimensions of the scale are given in Table 4.

Table 3: Differences according to various demographic characteristics

Demographic indicators	Variable	F	p	Reason of the difference
Age	Health perception	1.840	0.120	No Difference
	Cyberchondria	0.346	0.847	No Difference
Income status	Health perception	1.215	0.304	No Difference
	Cyberchondria	0.140	0.967	No Difference
Placement type	Health perception	1.630	0.182	No Difference
	Cyberchondria	0.358	0.783	No Difference
Education	Health perception	4.455	0.000	Associate degrees (3.27) Bachelor's degrees (3.12)
	Cyberchondria	3.947	0.001	Bachelor's degrees (2.44)/ Associate degrees (2.27) high school (2.25)
Hospital type	Health perception	0.304	0.823	No Difference
	Cyberchondria	0.295	0.829	No Difference
Annual average hospitalization status	Health perception	0.493	0.782	No Difference
	Cyberchondria	1.920	0.090	No Difference

F: F Value, P: Level of Significance

Table 4: Relationships between study variables

	1	2	3	4	5	6	7	8	9
1. Compulsion	1								
2. Extreme anxiety	0.542**	1							
3. Extremism	0.260**	0.636**	1						
4. Soothe	0.423**	0.648**	0.604**	1					
5. Distrust of the doctor	-0.191**	-0.005	0.101*	-0.037	1				
6. Control center	0.246**	0.172**	0.107*	0.137**	-0.151**	1			
7. Precision	0.152**	0.312**	0.205**	0.215**	-0.019	0.189**	1		
8. Importance of health	0.055	0.181**	0.174**	0.227**	0.101*	0.070	0.014	1	
9. Self awareness	0.004	0.014	0.104*	0.127**	0.108*	-0.132**	-0.059**	0.354**	1

*: Correlation is significant at the 0.05 level (2-tailed), **: Correlation is significant at the 0.01 level (2-tailed).

When Table 4 is examined, most of the relationships between the sub-dimensions are significant. Evaluating the correlation coefficients, since the tolerance values calculated for all variables are below 0.10 and VIF values are not above 10, it can be said that there is no multicollinearity problem (Table 4) (22).

Finally, a multiple regression analysis was conducted to determine the effect of the level of health perception on cyberchondriac behavior. The findings are presented in Table 5.

In Model 1, the regression model created to determine whether the sub-dimensions of the level of health perception affect the level of cyberchondria sub-dimension of compulsion is statistically significant (F:7.925; p:0.000<0.05). The adjusted R2 value is found to be 0.065. According to this result, it shows that 6% of the variance in the compulsion levels of individuals is explained by health perception. Accordingly, the sub-dimensions of control center (β=0.208, p:0.000<0.05) and certainty

(β=0.097, p:0.026<0.05) have a positive effect on the level of cyberchondria. The dimensions of the importance of health and self-awareness have no effect on the compulsion sub-dimension (p>0.05) (Table 5).

In Model 2, the regression model created to determine whether the sub-dimensions of health perception level affect the level of excessive anxiety, which is the sub-dimension of cyberchondria, is statistically significant (F:15.983; p:0.000<0.05). The adjusted R2 value is found to be 0.131. This result shows that 13% of variance in the excessive anxiety levels of individuals is explained by health perception. Accordingly, the sub-dimensions of control center (β=0.112, p:0.034<0.05), certainty (β=0.303, p:0.000<0.05), and the importance of health (β=0.237, p:0.001<0.05) have an impact on the level of excessive anxiety. The self-awareness dimension does not have any effect on the excessive anxiety sub-dimension (p>0.05) (Table 5).

Table 5: The impact of individual health perception on cyberchondria behavior

Models	Dependent variable	Independent variable	β	t	p	F	Model (p)
Model 1	Compulsion	Control center	0.208	4.546	**0.000**	7.925	0.000
		Precision	0.097	0.110	**0.026**		
		Importance of health	0.059	0.027	0.610		
		Self-awareness	0.032	0.593	0.553		
		R^2:.074Adjusted.R^2:0.065. F:7.925					
Model 2	Extreme anxiety	Control center	0.112	2.133	**0.034**	15.983	0.000
		Precision	0.303	6.064	**0.000**		
		Importance of health	0.237	3.504	**0.001**		
		Self-awareness	-0.022	-0.355	0.722		
		R^2:0.139;Adjusted.R^2:0.131 F:15.983.					
Model 3	Extremism	Control center	0.070	1.423	0.156	8.542	0.000
		Precision	0.185	3.943	**0.000**		
		Importance of health	0.170	2.682	**0.008**		
		Self-awareness	0.084	1.448	0.148		
		R^2:.080;Adjusted.R^2:.070 F:8.542.					
Model 4	Soothe	Control center	0.103	1.980	**0.048**	12.123	0.000
		Precision	0.202	4.101	**0.000**		
		Importance of health	0.244	3.662	**0.000**		
		Self-awareness	0.101	1.657	0.098		
		R^2:.109;Adjusted.R^2:.100 F:12.123.					
Model 5	Distrust of the doctor	Control Center	-0.192	-2.983	0.**003**	3.907	0.004
		Precision	0.015	0.238	0.812		
		Importance of health	0.143	1.724	0.085		
		Self-awareness	0.079	1.045	0.297		
		R^2:.038;Adjusted.R^2:.028 F:3.907.					
Model 6	Cyberchondria	Health perception	0.486	7.479	0.000	55.938	0.000
		R^2:.124;Adjusted.R^2:.121 F:55.938.					

β: Effect Level, t: T Value, P: Level of Significance, F: F Value

In Model 3, the regression model created to determine whether the sub-dimensions of the health perception level affect the level of excessiveness, which is a sub-dimension of cyberchondria, is statistically significant (F:8.542; p:0.000<0.05). The adjusted R2 value is found to be 0.070. This result shows that 7% of the variance in the excessiveness levels of individuals is explained by health perception. Accordingly, the sub-dimensions of certainty (β=0.185, p:0.000<0.05) and the importance of health (β=0.170, p:0.008<0.05) have an impact on the level of excessiveness. The control center and self-awareness dimensions do not have any effect on the excessiveness sub-dimension (p>0.05) (Table 5).

In Model 4, the regression model created to determine whether the sub-dimensions of health perception level affect the level of reassurance, which is a sub-dimension of cyberchondria, is statistically significant (F:12.123; p:0.000<0.05). The adjusted R2 value is found to be 0.100. This result shows that 10% of the variance in the reassurance levels of individuals is explained by health perception. Accordingly, the sub-dimensions of control center (β=0.103, p:0.048<0.05), certainty (β=0.202, p:0.000<0.05), and the importance of health (β=0.244, p:0.000<0.05) affect the level of reassurance. The self-awareness dimension does not have any effect on the reassurance sub-dimension (p>0.05) (Table 5).

In Model 5, the regression model created to determine whether the sub-dimensions of health perception level affect the level of distrust of the doctor, which is a sub-dimension of cyberchondria, is statistically significant (F:3.907; p:0.004<0.05). The adjusted R2 value is found to be 0.028. This result shows that 3% of the variance in the distrust of the doctor levels of individuals is explained by health perception. Accordingly, the sub-dimension of control center (β=-0.192, p:0.003<0.05) negatively affects the level of distrust of the doctor. Certainty, the importance of health, and the self-awareness dimensions have no effect on the distrust of the doctor sub-dimension (p>0.05) (Table 5).

In Model 6, the regression model created to determine whether the level of health perception affects the level of cyberchondria is statistically significant (F:55,938; p:0.000<0.05). The adjusted R2 value is 0.486. This result shows that 49% of the variance in the cyberchondria levels of individuals is explained by health perception. As a result, hypothesis H1 has been accepted (Table 5).

DISCUSSION

This study yielded important findings to reveal the effect of individual health perception on cyberchondria tendency and to determine health perception and cyberchondria behavior according to various demographic variables. In this section, the findings obtained in the study will be discussed by comparing them with the literature.

It was found that individuals' cyberchondria perceptions were below average and their health perceptions were at a good lev-el. In the literature, it is generally found that individuals prone to cyberchondria have more anxiety about their health status (23). The findings of this study show that this tendency is not present in a general sample, which could be a positive finding. The fact that individuals' cyberchondria tendencies are low and their personal perceptions are at a good level is considered as a positive situation. This shows that most individuals do not tend to overinterpret online health information that could lead to excessive concern. The fact that individuals generally perceive their health as good is a sign of a general health awareness and a positive health status.

It was found that individuals' health perceptions did not change according to marital status, gender, age, income status, type of settlement, type of hospital, and the number of annual hospital visits. It was found that the health perception levels of individuals with an associate degree were higher than those of individuals with a bachelor's degree. In the literature, it is particularly found that age and gender have a significant effect on health perception (24). However, this study shows that health perception varies depending on the cultural and regional factors of the sample data. It also shows that health perception is independent of these factors. However, found that the health perception of those with an associate degree is higher than those with a bachelor's degree, indicating that the level of education has an effect on health perception.

It was found that cyberchondriac behaviors of individuals did not change according to marital status, gender, age, income status, type of settlement, type of hospital, and the number of annual hospital visits. It was found that the cyberchondriac behaviors of individuals with a bachelor's degree were higher than those of individuals with an associate degree and high school graduates. This finding is consistent with the findings mentioned in the literature (25). This shows that cyberchondriac behaviors are also independent of these factors. However, the fact that individuals with a bachelor's degree have higher cyberchondriac behaviors than individuals with an associate degree and high school graduates is interpreted as indicating that a higher level of education may lead to a tendency to search for more online health information and misinterpret this information.

It was found that 49% of the variance in individuals' cyberchondria levels was explained by health perception. In the literature, a strong relationship has been noted between health anxiety and cyberchondria (26). This finding is consistent with the literature and confirms that individuals' general perceptions of their health play a significant role in determining cyberchondria levels. This demonstrates a significant impact in an individuals' general perceptions of their health status, how they interpret online health information and, as a result, the type of cyberchondriac behavior they exhibit. An individual who thinks they are healthy may be less likely to overinterpret specific health information. Delving deeper, it becomes evident that this relationship is rooted in the manner in which individuals interact with online health information. An individual's inherent

health perceptions significantly shape their interpretation and assimilation of online health data (27). In essence, an individual with positive health perceptions might approach online health content with a discerning perspective, thus reducing the propensity for unwarranted health anxieties. Conversely, those with negative or uncertain health perceptions might be more prone to misinterpreting or overemphasizing specific health information, leading to heightened cyberchondria tendencies (28). As highlighted by Glinert, the vast realm of online health information, if not navigated judiciously, can exacerbate health anxieties in susceptible individuals (29). Our findings resonate with this sentiment, suggesting that bolstering an individuals' accurate health perceptions and health literacy can act as potential mitigators against the spiral of cyberchondria (29).

Considering the research findings and results, the following suggestions could be useful.

More research is needed to better understand the relationship between cyberchondriac behaviors and health perception. This will allow us to better understand the impact of access to online health information on an individuals' health perceptions and behaviors.

Since there is a relationship between the level of education, cyberchondriac behaviors, and health perception, it is recommended to develop educational programs to increase health awareness to reduce these behaviors. These programs should provide training on how individuals can search for and interpret health information and should also help them develop a healthy health perception.

Since cyberchondriac behaviors are higher in individuals with a bachelor's degree, it is suggested to develop special preventive and intervention strategies focusing especially on this group.

Health professionals should be sensitive to a patients' behaviors and provide appropriate guidance and support when necessary.

More regulatory efforts are suggested regarding the presentation and accessibility of online health information. This could reduce the risk of excessive anxiety or cyberchondria based on misleading or confusing information.

The relationship between cyberchondria and psychopathologies experienced in the digital environment can be explored in-depth or through qualitative research.

It is anticipated that investigating the functional use of the internet as a factor in reducing cyberchondria could be valuable for further research.

Study limitations
Sample Selection: The sample in the study was selected using a convenience sampling technique, which is not a random selection method. While the convenience sampling technique might have been preferred due to its speed, ease, and cost-effectiveness, it limits the ability of the sample to represent the entire population. This is particularly the case where the sample consists of individuals aged 18 and over living in Istanbul, which might not fully represent a wider population (e.g., individuals prone to cyberchondria across Turkiye or globally).

Data Collection Time and Method: The data was collected online between June and July 2023. The quality of responses from online data collection is lower compared to offline data collection because online responses are generally less thoughtful and provided more quickly. Additionally, due to the time and duration of data collection, seasonal factors or transient events could have influenced the results.

The absence of any questions regarding the frequency of internet usage from the participants is also considered a limitation of the study.

CONCLUSION

This study revealed that individuals generally perceive cyberchondria below average and perceive their health at a good level. This indicates that individuals do not tend to overinterpret online health information and generally perceive their health in a good way.

Also, considering various demographic and socioeconomic factors (marital status, gender, age, income status, type of settlement, type of hospital, and number of annual hospital visits), it found that an individuals' health perception and cyberchondriac behaviors do not change according to these factors. However, the level of education affected both health perception and cyberchondriac behaviors. Specifically, while the health perception levels of individuals with an associate degree were higher than those with a bachelor's degree; the cyberchondriac behaviors of individuals with a bachelor's degree were higher than those of individuals with an associate degree and high school graduates.

The most significant finding is that 49% of cyberchondria levels is explained by health perception. This finding indicates that health perception plays a significant role in determining how individuals interpret health-related online information and exhibit cyberchondriac behaviors.

In conclusion, this study has shown that individuals' health perceptions and levels of education have a significant impact on cyberchondriac behaviors. This indicates the need for further research to better understand the impact of online health information on health perceptions and behaviors.

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