

RESEARCH ARTICLE

The Perception of Health and Cyberbullying Sensitivity in Adolescents

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Abstract

Objective: This study aims to determine the relationship between adolescents' perceptions of health and their susceptibility to cyberbullying and the factors that affect them.

Method: The targeted population of this descriptive study is the students of middle schools managed by the Directorate of National Education in a province in the Black Sea region. The selection of subjects was made by a simple random sampling method from two determined middle schools in the city center (n=381). The data of the study were collected with the Introductory Information Form, the Perception of Health Scale and the Cyberbullying Sensitivity Scale. The face-to-face interview method was used in data collection. The research was conducted according to ethical principles.

Results: Of the adolescents who participated in the study, 55.4% were girls and 72.7% lived in a nuclear family and most of the parents' educational level was high school graduated. There is a significant difference between the cyberbullying sensitivity scale score averages according to the gender of adolescents ($p<0.05$). There was a negatively significant association between the precision sub-dimension of the perception of health scale and the cyberbullying sensitivity scale for adolescents ($p<0.05$).

Conclusion: The study found that both male and female adolescents had a high level of cyberbullying sensitivity, good health perceptions, higher cyberbullying sensitivity of female students and a negative relationship between the 'precision' sub-dimension of health perception and the cyberbullying sensitivity. It is suggested that the awareness of adolescents should be raised about their perception of good health and similar studies should be repeated.

Key words: Adolescent, Perception of Health, Cyberbullying

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Introduction

The perception of health is a combination of an individual's personal feelings, thoughts, prejudices, and expectations regarding his/her own health (Velderman et al., 2010). Having positive beliefs about the individual's own health is defined as "the perception of good health" while having negative beliefs is defined as "the perception of bad health". The perception of good health aims to ensure that people acquire and sustain life behaviors that improve

health (Velderman et al., 2010; Bademli and Lok, 2018).

The perception of health in the adolescent period, which has its own characteristics and is complex, is decisive for the following years. Adolescents may adopt patterns of behavior that improve their health or gain unhealthy lifestyle behaviors that would harm both themselves and others (WHO, 2016). Cyberbullying is one of the conditions that has become increasingly common during the adolescent periods, considered a major public health issue, and thought to cause unhealthy lifestyle behaviors (Baldry et al., 2019).

Cyberbullying is the use of information and communication technologies by an individual or group maliciously and repetitively with the intent to harm other individuals (Katz et al., 2019). Adolescents are the most exposed ones to the act of cyberbullying (Baldry et al., 2019; Katz et al., 2019). Studies with adolescents in Turkey have found that cyberbullying is at a fairly high level (Akbulut and Eristi, 2011; Yaman and Sonmez, 2015; Kiliç and Gunduz, 2017; Uludasdemir and Kucuk, 2019).

Studies have shown that sociodemographic characteristics, media, school, and psychological factors can also affect cyberbullying, hence, cyberbullying sensitivity (Shin and Ahn, 2015; Olenik-Shemesh and Heiman, 2017; Al-Rahmi et al., 2018), and the perception of health is thought to be one of these variables. We encounter no studies on adolescents' health perceptions and sensitivities to cyberbullying in the literature. For this reason, this study was conducted to determine the relationship between adolescents' health perceptions and sensitivities to cyberbullying.

Methods

Study Aim and Design

The design of this study is descriptive-correlational. This study investigated the relationship between the health perceptions of adolescents between the ages of 12 and 15 and their sensitivity to cyberbullying and the factors affecting them. The criteria for participation in the survey were to be willing to participate in the survey and to be in the mentioned age range.

Participants

The population of this study consists of the 5, 6 and 7th-grade students of twenty middle schools in a province in the Black Sea region. In the study, the sample size was determined as 370 with 95% confidence interval by the known population

sampling method. To ensure equal representation of the population, two secondary schools from all socio-economic levels (low, medium, high) were determined by a simple random sampling method. The classes to be sampled in 5, 6 and 7th grades of the determined schools were also determined using a simple random sampling method. Written and oral consent was obtained from the parents and students who were studying in these classes and voluntarily wanted to participate in the research. The study was completed with 381 adolescents after excluded 43 students who did not agree to participate in the research and 18 students who did not come to school or were on leave at the date of data collection (n = 381).

Data Collection

In this research, the Introductory Information Form, Perception of Health Scale (PHS) and Cyberbullying sensitivity scale were used as data collection tools. The face-to-face interview method was used as a method of data collection. The questionnaire was filled out in the class and it took approximately 25-30 minutes to complete each form.

Introductory Information Form: This form, prepared by the researchers, consists of 7 questions about sociodemographic characteristics such as age, gender, family type, and health status and social activity

Perception of Health Scale (PHS): The scale developed by Diamond et al (2007) was translated into Turkish by Kadioglu and Yildiz (2012). PHS is a five-point Likert scale consisting of 15 items and four sub-factors. The item numbers of sub-dimensions of the scale are as follows; The control center, 1,2,3,4,5; Precision, 6,7,8,9; Importance of health, 10,11,12; Self-awareness, 13,14,15. For the scale, positive statements are rated as "very agreeable= 5", "I agree= 4", "I am undecided= 3", "Disagree= 2", "I do not agree at all. Also, 2, 3, 4, 6, 7, 8, 12, 13rd and 15th articles are negative expressions. Negative expressions were reverse scored. The minimum score on the scale is 15 and the maximum score is 75. The Cronbach alpha value of the scale is 0.82 (Diamond et al., 2007; Kadioglu and Yildiz, 2012). In this study, the scale Cronbach alpha value was found to be 0.51.

Cyberbullying Sensitivity Scale (CBSS): The scale developed by Tanrikulu et al. (2013) consists of 14 items and is answered on a triple scale (Yes, Sometimes, No). Questions on the scale are evaluated as "Yes"-3 points, "Sometimes"-2 points, "No"-1

point. The scale has a single factor structure, and the highest score from the scale is 42, and the lowest score is 14. The scale Cronbach alpha value is 0.87 (Tanrikulu et al., 2013). In this study, the Cronbach alpha value of scale was found to be 0.82.

Data Analysis

IBM SPSS Statistics for Windows, (Version 20.0; Armonk, New York) statistical package software was used to evaluate research data. Number, percentage, arithmetic mean, standard deviation and median (min, max) values were given for the descriptive properties of the data. Shapiro-Wilk normality test was used to see if the data showed normal distribution. The data did not show a normal distribution. Therefore, Mann Whitney U, Kruskal Wallis H, and Spearman nonparametric correlation tests were performed to statistical tests for hypothesis testing and their assumptions. The level of statistical significance was accepted as $p < 0.05$.

Ethical Consideration

For the research, approval from the ethics committee of a university (Protocol Number: 2019-4/8 Date:10.07.2019), the written permission from the relevant institutions, and the oral and written consent from the students and their families who participated in the research were obtained.

Results

Looking at the characteristics of adolescents, 55.4% of the participants were female students, 72.7% had the nuclear family, high school was the most common level of education as 36.7% in the mother's education, and as 40.7% in the father's education, also, 87.7% of the participants expressed themselves as healthy and 53.5% of those used to involve in a social activity. When the sensitivity levels of cyberbullying according to the characteristics of adolescents were examined, the difference between the score averages of adolescents from the cyberbullying sensitivity scale was found to be statistically significant according to their gender. ($p < 0.001$) (Table 1).

Table 1. The Levels of Cyberbullying Sensitivity by Descriptive Characteristics of Adolescents (n=381)

Age Mean±SD 13.25±1.187				
Descriptive Characteristics	n	%	Median (Min-Max)	Test and p
Gender				
Female	211	55.4	36.00 (13.00-42.00)	U=14334.500 p=0.001
Male	170	44.6	34.00 (21.00-39.00)	
Family Type				
Nuclear family	277	72.7	36.00 (13.00-42.00)	KW=.804 p=0.669
Extended family	80	21.0	35.00 (22.00-39.00)	
Broken Family	24	6.3	35.00 (26.00-40.00)	
Mother's Education Status				
First-secondary education	116	30.4	33.50 (26.00-39.00)	KW=.651 p=0.722
High school	140	36.7	36.00 (29.00-39.00)	
University and higher	125	32.8	35.50 (13.00-42.00)	
Father's Educational Status				
First-secondary education	109	28.6	35.00 (16.00-39.00)	KW=.699 p=0.705
High school	155	40.7	35.00 (21.00-40.00)	
University and higher	117	30.7	36.00 (13.00-42.00)	
Health situation				
Healthy	334	87.7	35.50 (13.00-42.00)	U=6786.000 p=0.130
Not healthy	47	12.3	34.00 (21.00-39.00)	
Social Activity				
Involving	204	53.5	36.00 (13.00-40.00)	U=17045.500 p=0.344
Not involving	177	46.5	35.00 (16.00-42.00)	

The control center sub-dimension score average for the perception of health scale of adolescents is 16.62±2.45, the precision sub-dimension score average is 12.67±2.75, the importance of health sub-dimension score average is 10.29±2.16, the self-awareness sub-dimension score average is 8.21±1.79

and the total health perception score average is 47.81±4.79 (Table 2).

Table 2. The Perception of Health Score Averages of Adolescents (n=381)

The Perception of Health Sub-dimensions	Mean±SD	Min-Max
Control Center	16.62±2.45	7-21
Precision	12.67±2.75	4-20
The Importance of Health	10.29±2.16	3-15
Self-Awareness	8.21±1.79	3-14
Total	47.81±4.79	34-61

It was found that there was a negative correlation between the precision sub-dimension score averages of the adolescents' health perception scale and the cyberbullying sensitivity ($p < 0.05$). When the relationship between the perception of health and cyberbullying sensitivity total scores was examined, it was not found a statistically significant correlation ($p > 0.05$) (Table 3).

Table 3. The Relationship Between Adolescents' Perception of Health and Cyberbullying Sensitivities (n=381)

The Perception of Health Sub-Dimensions	The Sensitivity to Cyberbullying	
	r	p
Control Center	-.22	0.668
Precision	-.116	0.024
The Importance of Health	.079	0.122
Self-Awareness	.038	0.456
Total Points	.006	0.908

Discussion

The findings of the study, which aimed to determine the relationship between the health perceptions of adolescents in Turkey and their sensitivity to cyberbullying, were discussed in this section. The cyberbullying sensitivity score of adolescents participating in the study was 36.00 for female students and 34.00 for male students. Accordingly, it is observed that both male and female adolescents have a high level of sensitivity to cyberbullying. In a study of adolescents, the sensitivity score for cyberbullying was expressed as high as 33.04 for girls and 30.81 for boys (Bridge and Duman, 2019). In a study conducted to determine the cyberbullying sensitivity of teacher candidates, the scale score of the participants was stated as similarly high as 32.37 (Uysal et al., 2014). The high level of cyberbullying sensitivity in both male and female

students may be thought to be due to increased bullying exposure. Some studies have shown that exposure to bullying develops sensitivity (Herge et al., 2015; Fridh et al., 2015).

In the study, it was determined that there was a significant correlation between the average score of cyberbullying sensitivity scale according to the gender of the adolescents ($p \leq 0.001$). Accordingly, female students were determined to be more sensitive than male students. When the literature is examined, it is thought that the problems that adolescents experience with cyberbullying are closely related to main characteristics such as gender, race, and culture (Horzum and Ayas, 2013; Tomé-Fernández et al., 2019). Many studies support these findings of our study. In a study on the students of the public relations department, it was stated that women were more sensitive to cyberbullying than men (Aktan and Cakmak, 2015). Another study on school counselors reported that female participants were much more sensitive to cyberbullying than men (Horzum and Ayas, 2013). This difference in male and female students can be explained by the fact that women are more sensitive, empathetic, helpful, tolerant and responsible than men.

In the study, the control center sub-dimension score average of the adolescents' health perception scale was 16.62 ± 2.45 , the precision sub-dimension score average was 12.67 ± 2.75 , the importance of health sub-dimension score average was 10.29 ± 2.16 , the self-awareness sub-dimension score average was 8.21 ± 1.79 and the total health perception points average was 47.81 ± 4.79 . In this study, the sub-dimension in which adolescents scored the highest was the 'control center', while the 'self-awareness' score average was the lowest. In one of the restricted studies evaluating the health perception of adolescents, the highest score among the scale sub-dimensions was 'control center' while the lowest score was 'self-awareness' similar to this study (Kurt, 2019). In a study evaluating the relationship between nursing students' health perception and health improvement behaviors, participants stated to perceive their health as 'good' and have the highest level of belief in 'controlling their health' (Aciksoz et al., 2013). This indicates that students have control over their health, as in our study. Also, another study on nursing students' health perceptions reported that the highest score in the sub-dimensions of health perception was the 'control center' and the lowest was expressed as the mean of 'self-awareness' score (Ozdelikara et al., 2018). Adolescent's high perception of health may have an advantage in increasing positive health behaviors for future years

(Zaybak and Fadiloglu, 2004; Kurtuncu et al., 2015). In this study, it can be said that adolescents have a good level of health perception.

It was found that there was a negative correlation between the 'precision' sub-dimension of the health perception scale of adolescents and the score averages for their sensitivity to cyberbullying ($p < 0.05$). Accordingly, as the precision on the perception of health decreases, the sensitivity to cyberbullying increases. A study on peer victimization in adolescents in the United States found that peer victimization and cyberbullying are directly and indirectly related to general health perception and somatic complaints (Herge et al., 2015). The limited studies available in the literature support the relationship between health perception and cyberbullying sensitivity in our study. The rapid change of scientific and technological knowledge, in other words, the lack of "precision" in the field of health can increase the cyberbullying sensitivity. That is why the perception of health is a factor that affects the individual's responsibility, behavior and sensitivity (Velderman et al., 2010).

Conclusion

In this study, which was conducted to determine the relationship between adolescents' health perceptions and their cyberbullying sensitivity and the factors affecting them, it was found that both male and female adolescents had a high sensitivity to cyberbullying, those female students had higher sensitivities about cyberbullying by gender, that their perceptions of health were at a good level, that there was a negative relationship between the sub-dimension of health perception 'precision' and the sensitivity to cyberbullying.

The increase of studies in different regions and with different samples to demonstrate health perception and sensitivity to cyberbullying, the expansion of the studies to include the school-family and social circle, and the rise of awareness about the good perception of health were recommended.

Ethics Committee Approval: Ethics committee approval was received for this study from Faculty of Nursing Clinical Research Ethics Committee of Atatürk University. Ethics no: 2019-4/8.

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