ORIGINAL ARTICLE

The Relationship Between Empathic Tendency and Happiness Levels in Associate Degree Students Studying in the Health Field

Sağlık Alanında Okuyan Önlisans Öğrencilerinde Empatik Eğilim ve Mutluluk Düzeyleri Arasındaki İlişki

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Abstract

Objective: The research was planned to determine the relationship between empathic tendency and happiness level in associate degree students studying in the field of health.

Method: The study is of descriptive cross-sectional type. The research was conducted at a university with 280 students who agreed to participate. Data were collected using the empathic behavior scale and the happiness level scale. The analysis of the data was performed using the SPSS 25.0 program, t-test, Mann-Whitney U test, one-way ANOVA, Kruskal-Wallis test, and correlation analysis for the relationship between variables.

Results: The mean age of the participants was 21.11 (±3.86) and 83.9% of them were women. The empathy scale mean score is 54.67, and the average happiness level score is 22.92. Women's empathy tendencies were found to be higher. It was determined that the happiness scale scores of the participants showed a statistically significant difference according to their income level and place of residence (p<0.05). A statistically significant and positive relationship (r=0.169, p<0.01) was found between empathy and happiness level.

Conclusion: Empathy tendencies and happiness levels of health professionals have an important place in the delivery of quality and efficient health services. It is important for managers to regularly monitor the data on empathy tendencies and happiness levels of health professionals to provide a good working environment, offer opportunities that allow them to develop themselves, and provide necessary support. It is recommended to support participation in events such as in-service trainings, congresses, and symposia.

Keywords: Associate degree students, empathy, happiness

Öz

Amaç: Araştırma, sağlık alanında öğrenim gören ön lisans öğrencilerinde empatik eğilim ile mutluluk düzeyi arasındaki ilişkiyi belirlemek amacıyla planlanmıştır.

Yöntem: Araştırma tanımlayıcı kesitsel tiptedir. Araştırma bir üniversitede araştırmaya katılmayı kabul eden 280 öğrenci ile yürütülmüştür. Empatik davranış ölçeği ve mutluluk düzeyi ölçeği kullanılarak veriler toplanmıştır. Verilerin analizi SPSS 25.0 programında yapılmış olup, t-testi, Mann-Whitney U testi, one-way ANOVA, Kruskal-Wallis testi, değişkenler arasındaki ilişki için korelasyon analizi yapılmıştır.

Bulgular: Katılımcıların yaş ortalaması 21,11 (±3,86) ve %83,9'u kadındır. Empati ölçeği ortalama puanı 54,67, mutluluk düzeyi ortalama puanı 22,92'dir. Kadınların empati eğilimleri daha yüksek bulunmuştur. Katılımcıların gelir düzeyine ve yaşadıkları yere göre mutluluk ölçeği puanlarının istatistiksel olarak anlamlı bir farklılık gösterdiği tespit edilmiştir (p<0,05). Empati ile mutluluk düzeyi arasında istatistiksel olarak anlamlı ve pozitif yönlü (r=0,169, p<0,01) bir ilişki tespit edilmiştir.

Sonuç: Kaliteli ve verimli sağlık hizmeti sunumunda sağlık profesyonellerinin empati eğilimleri ve mutluluk düzeyleri önemli bir yere sahiptir. Sağlık profesyonellerinin empati eğilimleri, mutluluk düzeyleriyle ilgili verilerin yöneticileri tarafından düzenli izlenmesi, iyi bir çalışma ortamı sağlanması, kendilerini geliştirmelerine imkan tanıyacak fırsatların sunulması ve gerekli desteğin verilmesi önemlidir. Hizmet içi eğitimler, kongre, sempozyum gibi bilimsel toplantılara, sosyal ve kültürel etkinliklere katılımının desteklenmesi önerilmektedir.

Anahtar Kelimeler: Önlisans öğrencileri, empati, mutluluk

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Introduction

The healthcare sector is a constantly evolving field. Providing healthcare services requires establishing healthy communication with others. By nature, people are motivated to communicate. Approaching others with empathy during communication enhances mutual understanding. Empathy is defined as the ability to understand another person's feelings and thoughts and to experience compatible emotions. The fundamental aspect of empathy is understanding patients' experiences. Empathy facilitates communication in every aspect of life. It is stated that empathy positively impacts emotional well-being and helps individuals maintain positive relationships (1,2). A lack of empathy indicates a lower understanding of the patient's perspective, whereas a high level of empathy reflects a better understanding and meeting of patient needs through interpersonal relationships (3). Patients approached with empathy experience reduced anxiety and increased satisfaction (4). When healthcare professionals use empathy skills while communicating with patients and their relatives, it prevents miscommunication and enhances the quality of interaction. Patients who feel understood are more satisfied, which, in turn, leads to increased job satisfaction and professional fulfillment for healthcare workers.

Happiness is defined as the frequent experience of positive emotions and high life satisfaction, and it is associated with both physical and mental health (5). Individuals with high levels of empathetic behavior in interpersonal relationships and work environments tend to have a happier lifestyle. There is a relationship between happiness and a positive outlook on life. Studies show that greater happiness contributes to better health and life satisfaction (6). It is stated that individuals with higher levels of happiness also have higher psychological well-being (7). Happiness provides individuals with a healthier mind and enhances their ability to cope with life events.

Research focusing on the positive aspects of individuals' well-being, such as life satisfaction, hope levels, optimism, and happiness, as well as their positive emotions, has been steadily increasing (8). For example, there are studies that examine the impact of happiness on individuals' psychological resilience (9-11). Happiness and empathy are key concepts in positive psychology. Disciplines dedicated to understanding humans and society emphasize that achieving happiness is a critical goal, and highlight the importance of studies in this area (10). Empathy is essential in optimal healthcare delivery; however, no study has been found that examines empathy levels across different healthcare disciplines. Based on this, determining the empathic tendency and happiness level of students studying at the associate degree level in the field of health is important, as it will affect the quality of service delivery while practicing their profession. Therefore, the aim of this study is to assess the relationship between empathetic tendencies and happiness levels among associate degree students studying in the health field.

Material and Method

Study Design

This study is descriptive and cross-sectional.

Research Questions

1. What is the level of empathic tendency in associate degree students studying in the health field?

2. What is the level of happiness in associate degree students studying in the health field?

3. Is there a relationship between empathic tendency and happiness level in associate degree students studying in the health field?

Population and Sample

The population of the study consisted of students enrolled in the Health Services Vocational School at Antalya Bilim University. There are nine different programs in the health vocational school. These are physiotherapy, first and emergency aid, opticianry, dialysis, anesthesia, medical laboratory, oral and dental health, operating room, medical imaging (n=900). The sample size was calculated using the known population formula, with a 95% confidence level and a 5% margin of error, yielding a required sample size of 269. The sample of the study consisted of 280 associate degree students who agreed to participate.

Inclusion Criteria

- Proficiency in the Turkish language,

- Being a student at the health services vocational school in the institution where the research was conducted,

- Voluntary participation in the study.

Data Collection Tools

Personal Information Form: This form consists of nine questions designed to gather participants' sociodemographic data. The personal information form consists of questions aimed at determining age, gender, place of residence, financial situation, department, and class of study.

Main Points

- Empathy is important in the provision of health services because it supports the development of individuals' awareness, communication and emotional skills.
- Individuals with high levels of empathy can lead a more satisfying and fulfilling lifestyle both in interpersonal relationships and in work environments.
- It is of great importance for health professionals who provide health services to develop their empathy skills.

Toronto Empathy Scale (TES): The TES, developed in 2009 by Spreng et al. (12), is a 16-item, 5-point Likert scale. In Turkey, the scale was adapted by Totan et al. (13) in 2012, reducing the number of items to 13 due to cultural differences . The internal consistency reliability coefficient of the scale was found to be 0.79, and the test-retest reliability coefficient after two weeks was 0.73. The TES is a unidimensional core measurement tool designed to minimize differences between the subdimensions of empathy. Items 1, 3, 5, 7, 8, 9, 11, and 12 are reverse-coded. Higher scores indicate greater empathy. As a result of the analysis conducted for the reliability of the scale, the Cronbach alpha internal consistency coefficient was found to be 0.79 (13). In this study, the Cronbach's alpha internal consistency coefficient was calculated as 0.79.

Oxford Happiness Questionnaire (OHQ): The OHQ-short form was validated and tested for reliability in 2011 by Doğan and Akıncı Çötok (14). Originally an 8-item scale, the scale was reduced to a 7-item, 5-point Likert scale after items with a total correlation below 0.30 were removed. The internal consistency and test-retest reliability coefficients of the scale were 0.74 and 0.85, respectively. Items 1 and 7 are reverse-coded. Higher scores on the scale indicate greater happiness. The scale's reliability is reported as Cronbach's alpha =0.692, indicating moderate internal consistency (14). In this study, the Cronbach alpha internal consistency coefficient was calculated as 0.78.

Ethical Considerations

Ethical approval for the study was obtained from Akdeniz University Faculty of Medicine Clinical Research Ethics Committee and institutional permission was granted from the institution where the study was conducted. (decision no: KAEK-42, date: 11.01.2023). Voluntary consent forms were collected from participants. Additionally, written informed consent was obtained from all participants in accordance with the principles of the Helsinki Declaration.

Procedure

Voluntary consent forms were collected from participants who agreed to participate. The study was carried out with 280 students enrolled in the Health Services Vocational School at Antalya Bilim University during the Spring Semester of the 2022-2023 academic year. Data was collected online using Google Forms during the data collection period, due to the transition to online education following the earthquake in the country. The students' e-mail groups were obtained from the student affairs office. The form was shared in the students' e-mail group. The first page of the form includes information about the research and the approval section. Those who completed the approval form accessed the scale items and responded to them.

Statistical Analysis

The data were analyzed using Statistical Package for Social Sciences version 25.0. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used. Both parametric and nonparametric tests were applied to analyze the variables. To test whether scores from two independent samples differed significantly, independent samples t-test and Mann-Whitney U test were used. To test whether the mean scores of more than two independent samples differed significantly, one-way ANOVA (F-test) and the Kruskal-Wallis test were applied. Correlation analysis was conducted to examine the relationships between variables. Regression analysis was performed to evaluate the impact of independent variables on dependent variables.

Results

The average age of the participants was found to be 21.11. The participants are 83.9% female and 96.1% single. It was found that 19.6% of the participants were in the operating room services, 12.1% in dialysis, and 11.8% in the department of anesthesia. It was determined that 58.6% of the participants were in the second class and 41.4% were in the first class. It was determined that 76.1% of the participants had health insurance, 55.0% had equal levels of income and expenses, and 65.0% lived in the province. 87.9% of the participants had a mother, father, or sibling they were living with (Table 1).

The means of the scales in the study were found to be 54.67 for empathy tendency and 22.92 for happiness level. It was observed that the skewness and kurtosis values of the scales were between -2 and +2 (Table 2).

It was determined that the empathy scale scores of the participants showed a statistically significant difference according to their gender (p<0.05). Accordingly, it was seen that the empathy score of women was higher than that of men. It was determined that the empathy scale scores of the participants did not show a statistically significant difference according to their marital status, department, class, health insurance, income level, place of residence, and people they lived with (p>0.05) (Table 3).

It was found that, the happiness scale scores of the participants showed a statistically significant difference based on their income level (p<0.05). The happiness scale score of the group whose income exceeds expenses is higher than that of the other groups. According to multiple comparisons, the happiness scale score of the group whose income is higher than expenses is higher than that of the group whose income is lower than expenses. A statistically significant difference was found in the happiness scale scores of participants based on where they live (p<0.05). The happiness scale score of the group living in the province is higher than that of the other groups. According to multiple comparisons, the data show that the happiness scale score of the group living in the province is higher than the group living in the district. It was found that the happiness scale scores of the participants did not show a statistically significant difference according to their gender, marital status, department of study, class, health insurance, and the people they live with (p>0.05) (Table 4).

Table 1.
Participants' Information

Variables		Number	%
Age	($\overline{X}$: 21.11; SD: 3.86; min.-max.: 18-48)		
Gender	Male	45	16.1
	Female	235	83.9
Marital status	Single	269	96.1
	Married	11	3.9
Department	Operating room services	55	19.6
	Anesthesia	33	11.8
	First and emerhency aid	30	10.7
	Opticianry	31	11.1
	Medical imaging	26	9.3
	Medical laboratory	28	10
	Physiotherapy	17	6.1
	Oral and dental health	26	9.3
	Dialysis	34	12.1
Class	1st class	116	41.4
	2nd class	164	58.6
Health insurance	Yes	213	76.1
	No	67	23.9
Income level	Income less than expenses	64	22.9
	Income equal to expenses	154	55
	Income more than expenses	62	22.1
Place of residence	Province	182	65
	District	82	29.3
	Village	16	5.7
People living	Alone	13	4.6
	Mother, father, sibling	246	87.9
	Friend	9	3.2
	Spouse and children	12	4.3

SD=standard deviation, Min.=minimum, Max.=maximum

Table 2.
Scale Average Scores

Scales	Min.	Max.	$\overline{X}$	SD	Skewness	Kurtosis
Toronto empathy scale	32	65	54.67	6.58	-0.580	0.181
Oxford happiness scale	8	35	22.92	4.84	-0.106	-0.108

SD=standard deviation, Min.=minimum, Max.=maximum

Regression analysis was conducted to explain the effect of empathy on the happiness of the participants in the study. When the significance level corresponding to the F value is examined, it is seen that the established model is statistically significant (F=8.187; p<0.05). When the t value and significance levels of the ß coefficient of the independent variable are examined, empathy (t=2.861; ß=0.124) is seen to have a statistically significant effect on happiness (p<0.05). In this case, as scores obtained from empathy increase, happiness will increase. It is evident that 2.5% of the change in happiness is explained by empathy (Adjusted R^2=0.025) (Table 5).

Table 3.
Distribution of Empathy Scale Scores According to Participants' Characteristics

Variables		Empaty				
		Min.	Max.	Median	SD	$\overline{X}$
Gender	Male	32	65	51	50.64	8.30
	Female	34	65	55	55.44	5.91
	t	-4.646				
	p	0.000*				
Marital status	Single	32	65	55	54.59	6.62
	Married	47	63	57	56.55	5.37
	Z	-0.911				
	p	0.362				
Department	Operating room services	32	65	55	54.64	7.25
	Anesthetics	37	64	57	54.94	6,61
	First and emergency aid	40	65	56	55.40	6.81
	Opticianry	41	65	55	54.58	6.90
	Medical imaging	44	65	54.5	54.96	4.95
	Medical laboratory	34	65	56.5	54.82	7.13
	Physiotherapy	39	60	54	52.47	5.67
	Oral and dental health	38	65	55	53.81	7.05
	Dialysis	41	65	55.5	55.32	5.97
	KW	3.215				
	p	0.920				
Class	1st class	32	65	55	54.90	6.18
	2nd class	34	65	55	54.51	6.85
	t	0.481				
	p	0.631				
Health insurance	Yes	32	65	55	54.76	6.61
	No	38	65	55	54.39	6.51
	t	0.404				
	p	0.687				
Income levels	Income is less than expense	32	65	56	55.02	7.84
	Income is equal to expense	34	65	54.5	54.61	5.73
	Income is more than expense	37	65	55	54.47	7.19
	F	0.123				
	p	0.884				
Place of residence	Province	32	65	55	54.59	6.86
	District	39	65	56	55.51	5.48
	Village	38	63	52	51.31	7.66
	KW	4.22				
	p	0.121				
People living	Alone	40	65	52	54.92	7.62
	Mother, father, sibling	34	65	55	54.67	6.54
	Friend	32	60	55	52.44	8.08
	Spouse and children	47	63	55	56.17	5.29
	KW	0.871				
	p	0.833				

*p<0.05 t-test, Mann-Whitney U test, one-way ANOVA (F) test and Kruskal-Wallis test
KW=Kruskal-Wallis test, SD=standard deviation, Min.=minimum, Max.=maximum

Table 4.
Distribution of Happiness Scale Scores According to Participants' Characteristics

Variables		Happiness				
		Min.	Max.	Medyan	SD	$\overline{X}$
Gender	Male	8	31	22	22.53	5.6
	Female	11	35	23	23	4.76
	t	-0.587				
	p	0.558				
Marital status	Single	8	35	23	22.88	4.9
	Married	21	31	23	24	2.97
	Z	-0.790				
	p	0.429				
Department	Operating room services	16	35	23	23.65	4.28
	Anesthetics	12	30	22	22.06	4.59
	First and emergency aid	13	31	23.5	23.10	4.70
	Opticianry	12	35	22	22.45	4.90
	Medical imaging	12	34	22.5	22.38	5.70
	Medical laboratory	13	32	23	22.89	5.07
	Physiotherapy	8	30	21	21.35	5.65
	Oral and dental health	12	32	24.5	23.73	4.67
	Dialysis	11	32	23.5	23.44	4.96
	KW	5.625				
	p	0.689				
Class	1st class	13	35	22	22.76	4.39
	2nd class	8	35	23	23.04	5.14
	t	-0.473				
	p	0.637				
Health insurance	Yes	12	35	23	23.18	4.55
	No	8	32	22	22.09	5.62
	t	1.451				
	p	0.15				
Income levels	Income is less than expense (1)	8	35	21	21.58	5.18
	Income is equal to expense (2)	12	35	23	23.15	4.45
	Income is more than expense (3)	12	35	23	23.74	5.20
	F	3.593				
	p	0.029*				
	Bonferroni	1<3				
Place of residence	Province (1)	8	35	23	23.35	4.81
	District (2)	12	35	21	22.04	4.83
	Village (3)	12	29	22.5	22.56	4.93
	KW	6.227				
	p	0.044*				
	Bonferroni	2<1				
People living	Alone	18	35	25	25	4.65
	Mother, father, sibling	8	35	23	22.72	4.87
	Friend	17	32	24	24.89	4.86
	Spouse and children	15	31	23	23.25	3.84
	KW	3.597				
	p	0.308				

*p<0.05 t-test, Mann-Whitney U test, one-way ANOVA (F) test and Kruskal-Wallis test
KW=Kruskal-Wallis test, SD=standard deviation, Min.=minimum, Max.=maximum

Table 5.
Results of Regression Analysis Conducted to Explain the Effect of Empathy on Happiness

Dependent variable	Independent variable	ß	t	p	Beta	F	Model (p)	Adjusted R²
Happiness	Stable	16.117	6.728	0.000*		8.187	0.005*	0.025
	Empaty	0.124	2.861	0.006*	0.169			
*p<0.05 regression analysis								

Discussion

The average age of the participants in the study was 21.11; 83.9% were women. The average empathy scale was 54.67 and the average happiness level was 22.92. The empathy level of women was found to be higher than that of men. Studies have shown that women are more empathic than men (15,16). A study has stated that women are more empathic stems from cultural expectations regarding gender roles (17). Another study has shown (18) that physiological structures and hormones can be effective in influencing bodily functions or processes. The level of happiness can vary depending on living conditions, education level, personality traits, and gender (19). Another study has found that the level of happiness increases as income increases (20). As a result of the study, the level of happiness was found to be high in those living in the city center and those with high income levels. This shows that happiness can vary depending on environmental conditions.

Empathy is achieved when a person understands another person's feelings correctly and can convey an appropriate response. People who realize that they receive empathy from others feel more understood and cared for. In a study conducted with medical school students, it was observed that empathy levels decreased throughout the education process (21). In the study conducted by Tutuk et al. (22), empathy was found to be at a moderate level in nursing students, and empathy increased as the years of education increased. In a different study, empathy scores were found to be high in nurses who worked in the clinic for a long time (23). There are also studies that have found a positive relationship between empathy and self-esteem (24). The study also found a high level of empathy. It is thought that empathy skills in students studying in health sciences may be affected by not only the fact that they are patients but also the education they receive and their personality traits.

Happiness motivates people to take action. Taking action and being happy make it easier to help other people. In a study where a significant positive relationship was found between happiness, well-being, and health, no statistically significant relationship was found between age, family income, personal income, and happiness (25). There are many factors that affect happiness. These factors can be personality traits (26,27), social support systems (28), socio-demographic characteristics, and living conditions (29,30). The study found a relationship between the happiness levels of health vocational school students and their economic status and place of residence; additionally, their happiness levels were found to be high. Health professionals, due to their jobs, are in constant communication with patient groups who need help. Therefore, the level of happiness among health service providers can be a determinant for the quality and satisfaction of the work done. In a study conducted with health sciences faculty, students in our country, no significant relationship was found between happiness levels, gender, and grades (31). Similarly, in our study, it was determined that happiness scale scores did not show a statistically significant difference according to gender, marital status, department, grade, health insurance, and people they lived with. Based on this, the factors affecting the level of happiness should be investigated more specifically. Studies examining the relationship between empathy and happiness in a student sample reveal a positive relationship between these variables (32,33). A study conducted by Thomas et al. (34) found that those with high empathy skills felt happier and had better interpersonal relationships. In a study conducted by Keleş (35), a strong correlation was found between communication and empathy. It is stated that empathy is related to various dimensions of happiness such as self-acceptance, personal development, and purpose in life (2,36). In addition, in a study conducted with nurses, it was stated that understanding the patient from the patient's perspective by empathizing and gaining respect will increase communication satisfaction, and as a result, work well-being and happiness levels will increase (37). As a result of the study, a significant positive relationship was found between empathy and happiness. Healthcare professionals should pay attention to their empathy and interpersonal relationships in order for service delivery to result in positive outcomes.

As a result of the study, the effect of empathy on happiness was found to be significant. In a study conducted by Viyanak and Judge (38), empathy was found to be a predictor of psychological well-being. In a different study, it was determined that happiness, one of the most basic emotions, has an important role in the formation of empathy (39). Happiness causes more activity, facilitates the individual's social relationships, and forms the basis for empathy. This situation shows that the level of happiness and empathy is important in healthcare professionals. Happy people cooperate at a higher level and happiness is associated with satisfaction; therefore, it has an accelerating role in the development process of society.

Study Limitations

This study was conducted with students from nine programs (first and emergency aid, operating room, anesthesia, medical laboratory, medical imaging, opticianry, oral and dental health, physiotherapy, and dialysis) in the Health Vocational School who volunteered to participate. The study is limited by the location and sample. There may be different programs in Health Service Vocational Schools throughout the country, so the differences cannot be generalized. Since there are no similar studies at the associate degree level in the literature, the discussion could be limited.

Conclusion

The empathic tendencies and happiness levels of the participants are high. The empathic tendencies and happiness levels of health professionals have an important place in the provision of quality and efficient health services. It is important that the data on the empathic tendencies and happiness levels of health professionals are regularly monitored by their managers; a good working environment and opportunities for self-improvement, together with necessary support, are provided. It is important to support participation in in-service training, scientific meetings, such as congresses and symposiums, and social and cultural events. In addition, it is recommended that new studies be conducted on empathy and happiness levels with a larger sample and different groups of health professionals. Increasing awareness of the empathy and happiness levels among professionals providing health services can enhance service provision. It is recommended that applied research be conducted in the future using positive psychological interventions to increase the level of empathy and happiness.

Ethics

Ethics Committee Approval: Ethical approval for the study was obtained from Akdeniz University Faculty of Medicine Clinical Research Ethics Committee and institutional permission was granted from the institution where the study was conducted. (decision no: KAEK-42, date: 11.01.2023).

Informed Consent: Voluntary consent forms were collected from participants.

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Footnotes

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