AN INVESTIGATION OF THE COMPASSION LEVELS OF HEALTH PROFESSIONALS CANDIDATES

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ABSTRACT

The aim of this study is to determine the factors affecting the level of compassion and the compassion levels of professionals candidates. The population of this study consisted of 1382 students from Nutrition and Dietetics, Child Development, Physiotherapy and Rehabilitation, Nursing and Health Management. "Demographic Information Form" which was developed by researchers in the literature and Compassion Scale developed by Pommier (2011) and also adapted to Turkish by Akdeniz and Deniz (2016) which able to measure compassion towards others was used as a data collection tool. In the study, 34.7% of the professional health candidates were in the Nutrition and Dietetics Department, 33% were 20 years old and 78.7% were women. The mean score of the Compassion Scale of all students was 4.22 ± 0.24. There was a statistically significant difference ($p < .05$) between the scores of the first grade to the last grade. A statistically significant difference was found in terms of indifference, seperation, mindfulness, disengagement sub-dimensions and general compassion scale scores. It was determined that compassion levels of health professionals candidates differed in terms of gender, class and income status. In light of the findings obtained, it can be explained in the lessons as a subject of compassion for the awareness of the emotions that will affect the feelings of compassion of the students of the health sciences faculty who will be health professionals of the future.

Keywords: Compassion; Health Professionals; Compassionate Health Care

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1. INTRODUCTION:

Compassion is a fundamental value in health care, is defined as the desire to understand and relieve the pain or misfortune of others [1, 2]. Compassion is an empathic reaction to pain. It is the result of a rational process that seeks to find a solution to pain through certain moral actions, and to take care of people's welfare. For this reason, compassion involves the sensitivity shown to understand the pain of others, the willingness to help to find a solution to the present situation and to increase the welfare of the suffering person [1-4].

Even though advanced developments in the medical field have increased expectations for the solution of health problems, there is no solution to the suffering caused by many problems. Disability, chronic diseases, loss of loved ones and similar situations are all types of pain that cannot be eliminated by health professionals. Health professionals often witness this kind of suffering because of the nature of their work [5]. Compassion requires people to be respected and valued as individuals, and to understand and respond to their human experience in the processes of health care. In these aspects, compassion is the duty of health professionals in their daily work [2, 3].

A humanist approach and compassion are regarded as the basis for perfect health care [1]. Hospitals are places where both patients and their relatives have a hard time, sometimes they are desperate and need compassion. It is observed that health care workers in hospitals

treat patients like a mechanical entity. Patients who are undergoing a difficult period due to health problems are in worse health when they are exposed to the emotionless treatment of health professionals. The emotional approach of health professionals towards patients contributes to their mental and physical health. For this reason, compassion is more than *"health care"* given to others [6].

The healing power of compassion has been known for centuries. Health professionals must use this power. It is this power of compassion that relaxes a patient who is afraid of suffering and hard-pressed. Patients are not accustomed to the hospital environment such as healthcare professionals. Being in the hospital is surprising, frightening and uncertain for patients. This may cause emotional exhaustion in patients. The patient, under economic, emotional and psychological pressure, needs the compassion of health professionals [7]. However, each health professional is a potential patient or patient relative. While he is a person who is expected of compassion, he cannot be guaranteed that he will not be in need of compassion. It is a moral requirement for health professionals to treat their patients in the same way if they want to be treated as a patient.

Universally, patients keep care and compassion equal. Caring health professionals share the joys, sadness, pain and success of patients. Health professionals need to be compassionate, courageous and open to manage this sharing effectively [8]. Feeling compassion is not a duty, but it is a duty to develop the ability to feel the compassion in itself [9]. As noted, compassion is not imposed on the person, but can be improved.

According to Larson & Yao's researches, it was seen that patients explained their concerns, symptoms and behaviors more easily to compassionate health professionals [10].

Similarly, Epstein et al., have shown that caregivers talk more about the symptoms and concerns of patients who show empathy (a part of compassion) in a study of 100 health care workers, and that this results in more accurate diagnosis and treatment [11]. According to the results of a comprehensive study conducted by Lown and his colleagues on 800 patients with compassionate care and 510 doctors in hospitals in the United States, it was found that both patients and doctors were almost all of compassionate. Despite this data, only 53% of the patients and only 58% of the doctors stated that the hospital system provided a compassionate environment [12]. According to the findings of a study by conducted by Gilbert and Cole-King [13] with 53 patients who were hospitalized in a hospital, it was determined that the patients who had depression and anxiety recovered later [7]. As seen in the study samples in the hospitals, compassionate treatment facilitates the treatment process of the patients and affects their physical health positively. According to the results of the research conducted by Hutcherson, Seppala & Grpss [24] with 93 volunteers, it was observed that the moods of the participants who used their compassion skills were more positive than those who did not use their compassion skills [14]. In this context, in order to provide quality health service, health sciences students, who will be health professionals of the future, should be able to communicate effectively with patients and manage the difficulties they face in these processes. The contribution of compassion in carrying out this management process will be high. The aim of this study is to determine the factors affecting the level of compassion and the compassion levels of professionals candidates.

2. MATERIALS AND METHODS:
2.1. The Universe and Sample of Study

The study was conducted between 04-08 February 2019 in a faculty of health sciences in a foundation university in Istanbul. The universe of the study is based on the department of Health Sciences Faculty, Nutrition and Dietetics 517, Child Development 137, Physical Therapy and Rehabilitation 424, Nursing 182, and 122 from Health Management; 461 students in the first year, 328 students in the 2nd year, 332 students in the 3rd year, and 261 students in the 4th year consisted of 1382 students in total. 1382 students were included in the study without using sampling method. 746 students refused to participate. Eighty-two participants who did not fully answer the questions in the *"Compassion Scale"* with the *"Demographic Information Form"* were excluded. Therefore, 554 students were included in the sampling.

2.2. Data Collection Tools

"Demographic Information Form" and *"Compassion Scale"* were used in the study as data collection tools.

"Demographic Information Form" which was formed as a result of the literature review, included questions such as age, gender, the department in which they were educated, the grade they were in, the preference of the department, family place, income status, number of siblings and place of residence.

"Compassion Scale" is a data collection tool developed by Pommier [15], adapted to Turkish by Akdeniz & Deniz [16] and measures compassion for others in six dimensions. These six dimensions are as follows: *Kindness (6,8,16,24), Indifference (2,12,14,18), Common Humanity (11,15,17,20), Seperation (3,5,10,22), Mindfulness (4,9,13,21)* and *Disengagement (1,7,19,23).* In addition, the scale is a 24-item, 5-point Likert type scale. Scoring of the items in the scale is done as 1 = Never, 2 = Rarely, 3 = Sometimes 4 = Often, 5

= Always. While the scores of the 2, 4 and 6 sub-dimensions of the scale were calculated, the items of these dimensions were reversed. The lowest score that can be obtained from the scale is 24 and the highest score is 120. As the score obtained from the scale increases, the compassion level of the health professionals candidates increases positively. As a result of the confirmatory factor analysis (CFA) conducted by Akdeniz and Deniz [16] for the scale, the existence of six dimensions constituting the structure of the scale was confirmed. Cronbach Alpha internal consistency reliability coefficient for the whole scale was found to be .85. Factor loads of items of scale sub-dimensions; ranges from .61-.74 for *Kindness* subscale, .56-.69 for *Indifference*, .54-.83 for *Common Humanity*, .51-.73 for *Seperation*, .55- .72 for *Mindfulness*, and .58-.68 for *Disengagement*. The fit indices of the scale *(CFI = .97; NNFI = .96; SRMR = .05 and RMSEA = .06)* were found. In this study, Cronbach's Alpha values were ranges from *.64-.77* for the sub-dimensions. The Cronbach's alpha value was .82 for the whole scale. The fit indices of the scale *(CFI = .96; NNFI = .93; SRMR = .06 and RMSEA = .06)* were found.

2.3. Data Collection Methods

The students of the Faculty of Health Sciences were informed about the research and informed consent was obtained. *"Demographic Information Form"* and *"Compassion Scale"* were distributed to the students who agreed to participate the study voluntarily. Explanation was made about filling the data collection forms. Approximately 5-7 minutes of response time, the study was under the control of the researchers.

2.4. Ethical Status of Study and Permissions

In this study, study permit was obtained from Bahcesehir University Dean of Faculty of Health Sciences and also for Ethics Committee

approval was obtained from Bahcesehir University Ethics Committee.

2.5. Evaluation and Analysis of Data

SPSS 25.0 statistical package program was used to evaluate the data. The distribution of the questions in the "Demographic Information Form" was interpreted as frequency, percentage, and scale scores as mean, standard deviation. The normal distribution of the data was analyzed by Kolmogorov Smirnov test before the analysis and it was found that it showed normal distribution. *Independent Samples T Test* was used to compare the two groups of quantitative data. *One-Way ANOVA* was used to compare more than two groups and in addition, *Bonferroni* test was used in the test of the group causing the difference. The results of the analysis were evaluated at 95% confidence interval and $p < 0.05$ significance level.

3. RESULTS:

27.4% (152 students) of the students included in the study, were in the Physical Therapy and Rehabilitation Department, 22.3% (124 students) were 22 years old (20.47 ± 0.60) and 75.2% (417 students) were found to be female. When examined on the basis of class; It was found that 28.3% (157 students) were in 3rd grade, 52.8% (293) of their families lived in the city and 52.1% (289) of their income had middle income (see Table 1).

Table 1: Demographic Information of Health Professionals Candidates (N= 554)

Demographic Information		Count	%
Department	Nutrition and Dietetics	120	21.6
	Physical Therapy and Rehabilitation	152	27.4
	Nursing	141	25.4
	Health Management	54	9.7
	Child Development	87	15.7
	Total	**554**	**100**
Age	18	122	22
	19	106	19.1
	20	87	15.7
	21	96	17.3
	22	124	22.3
	≥ 23	19	3.4
	Total	**554**	**100**
Sex	Female	417	75.2
	Male	137	24.7
	Total	**554**	**100**
Education	1st year	122	22
	2nd year	131	23.6
	3rd year	157	28.3
	4th year	144	25.9
	Total	**554**	**100**
Family Place	Village	95	17.1
	Town	62	11.9
	District	104	18.7
	Province	293	**52.8**
	Total	**554**	**100**
Income Status	Low	99	17.8
	Middle	289	52.1
	High	166	29.9
	Total	**554**	**100**

The mean scores of the Compassion Scale subscales were *Kindness = 3.96 ± 0.51*, *indifference= 1.89 ± 0.54, common humanity= 4.06 ± 0.67, Seperation = 1.54 ± 0.49*, *mindfulness= 4.18 ± 0.67* and *disengagement= 1.61 ± 0.52*. In addition, the mean score of *compassion scale* was *4.09 ± 0.34* (see Table 2).

Table 2: Health Professionals Candidates Compassion Scale Scores (N=554)

Değişkenler	Mean	S.D.	Median	Min.	Max.
Kindness	3.96	0.51	4.2	1.0	5.0
Indifference*	1.89	0.54	1.9	1.0	5.0
Common Humanity	4.06	0.67	4.2	1.0	5.0
Seperation*	1.54	0.49	1.8	1.0	5.0
Mindfulness	4.18	0.67	4.2	1.0	5.0
Disengagement*	1.61	0.52	1.5	1.0	5.0
Compassion Scale	4.09	0.34	4.1	2.1	5.0

* Reversed when calculating total average score.

Kindness, common humanity, mindfulness, disengagement and total compassion scale scores were higher in females, while indifference and seperation were higher in males. Only the difference of affection dimension between the groups was significant according to gender (p <0.05) (see Table 3).

Table 3: Compassion Scale Scores Differences Between Gender Groups

	Female		Male		t	p
	x̄	SS	x̄	SS		
Kindness*	4,23	0,66	4,18	0,71	-2,095	.036*
Indifference	1,73	0,11	1,27	0,55	-,074	.941
Common Humanity	4,81	0,05	4,57	0,98	-,683	.495
Seperation	1,33	0,90	1,03	0,55	-,760	.447
Mindfulness	4,16	0,06	4,03	0,98	-1,920	.055
Disengagement	1,98	0,24	1,28	0,58	-,824	.410
Compassion Scale	4,05	,68	3,85	0,94	-1,248	.214

* p <0.05, Independent sample T-Test; x̄: Mean; SS: Standard Deviation.

The difference between the mean scores of the compassion scale total scores and the mean scores of the sub-dimensions of the health professional candidates participating in the study did not show a significant difference according to the age group variable (ANOVA), there was no statistically significant difference (p> 0.05) (see Table 4).

Table 4: Compassion Scale Scores Differences Between Age Groups

	18 years		20 years		21 years		22 and above		F	p
	x̄	SS	x̄	SS	x̄	SS	x̄	SS		
Kindness	4,13	0,46	4,18	0,61	4,28	0,72	4,18	0,61	1,614	.154
Indifference	1,43	0,21	1,37	0,45	1,37	0,58	1,37	0,65	,646	.665
Common Humanity	4,41	0,08	4,77	0,68	4,57	0,92	4,27	0,88	0,817	.932
Seperation	1,33	0,70	1,13	0,85	1,07	0,53	1,33	0,75	,578	.505
Mindfulness	4,26	0,04	4,13	0,58	4,08	0,91	4,23	0,68	1,285	.410
Disengagement	1,68	0,34	1,38	0,59	1,27	0,55	1,38	0,78	1,253	.522
Compassion Scale	4,15	0,68	3,95	0,93	3,86	0,92	3,75	0,84	1,921	.127

* p <0.05 One Way ANOVA Test; F, x̄: Mean; SS: Standard Deviation.

The results of the one-way analysis of variance (ANOVA) in order to determine whether the mean scores of compassion scale and sub-dimension of the health professional candidates participating in the study showed a significant difference according to department variable were found to be statistically significant (F = 2.563; p = 0.037 <0.05). The difference was caused by the nursing department students' kindness, common humanity and total scale scores. The average scores of nursing department were higher than the average scores of other departments. The mean scores of the compassion scale total scores and subscales of the students in the nutrition and dietetics, social work, physical therapy and rehabilitation, health management department were not statistically significant (p> 0.05) (see Table 5).

Table 5: Compassion Scale Scores Differences Between Departments

	Beslenme ve Diyetetik		Sosyal Hizmet		Hemşirelik		Sağlık Yönetimi		Çocuk Gelişimi		F	p
	x̄	SS	x̄	SS	x̄	SS	x̄	SS	x̄	SS		
Kindness	4,13	0,46	4,18	0,61	4,58	0,72	4,18	0,61	4,08	0,61	1,714	.254
Indifference	1,43	0,21	1,37	0,45	1,07	0,58	1,37	0,65	1,27	0,45	,686	.665
Common Humanity	4,41	0,08	4,37	0,68	4,57	0,98	4,27	0,88	4,27	0,62	2,563	.032
Seperation	1,33	0,70	1,13	0,85	1,07	0,53	1,33	0,75	1,17	0,75	,568	.605
Mindfulness	4,26	0,04	4,13	0,58	4,28	0,91	4,23	0,68	4,23	0,48	1,685	.510
Disengagement	1,68	0,34	1,38	0,59	1,27	0,55	1,38	0,78	1,28	0,69	1,453	.722
Compassion Scale	4,15	0,68	3,95	0,93	4,56	0,92	3,75	0,84	3,65	0,53	1,951	.227

* p <0.05 One Way ANOVA Test; F, x̄: Mean; SS: Standard Deviation.

The mean scores of compassion scale total and sub-dimensions of the helth professional canditates who participated in the study were found to be statistically significant (F = 5,760; p = 0.001 <0.05) according to the educational status variable. As a result of the Bonferroni corrected paired comparisons made to determine which group originated from the difference, there was a significant difference between the first and fourth grades. The first grade students' *kindness* subscale scores, *common humanity* and *compassion scale* score averages were found to be high than fourth grade score average (see Table 6).

Table 6: Compassion Scale Scores Differences Between Grades

	1. Grade		2. Grade		3. Grade		4. Grade		F	p
	x̄	SS	x̄	SS	x̄	SS	x̄	SS		
Kindness	4,53	0,46	4,18	0,61	4,28	0,72	4,18	0,61	3,614	0,024*
Indifference	1,33	0,21	1,37	0,45	1,37	0,58	1,37	0,65	,646	,665
Common Humanity	4,77	0,08	4,27	0,68	4,37	0,92	4,17	0,88	4,652	0,032*
Seperation	1,33	0,70	1,43	0,85	1,27	0,53	1,33	0,75	,578	,505
Mindfulness	4,56	0,04	4,13	0,58	4,08	0,91	4,03	0,68	1,285	0,410
Disengagement	1,58	0,34	1,38	0,59	1,37	0,55	1,28	0,78	1,253	0,522
Compassion Scale	4,45	0,68	3,95	0,93	3,86	0,92	3,75	0,84	5,760	0,001*

* p <0.05 One Way ANOVA Test; F, x̄: Mean; SS: Standard Deviation.

There was a statistically significant difference in the sub-dimension of common humanity according to income status (F = 5.187; p = 0.018). As a result of the Bonferroni corrected paired comparisons made to determine which group originated from the difference, significant differences were found between those with high income status and those with low income status. The subscale scores of common humanity those with high income status were found to be statistically significantly lower than those with middle and low income status. No statistically significant difference was found between the total score and sub-dimensions of the scale according to the place where the family of health

professional candidates lived (F = 1.563; p = 0.237> 0.05).

4. DISCUSSION:

In this study, compassion levels and the factors affecting the compassion levels of health science faculty students who are future health professionals are examined. The mean score of compassion scale of the future health professionals was 4.09 ± 0.34. The higher the score, the higher the level of compassion. Considering that the highest score is 5, it can be said that the compassion level of the future health professionals is high. In the literature, it is emphasized that compassion is important in the education of nursing students of health sciences students [2, 17, 18]. In a study conducted to measure compassion perceptions of medical students, it was found that compassionate care perceptions of students increased after the training given [19].

In this study, no statistically significant difference was found between the compassion scale sub-dimensions and the compassion scale total score and the age of the students and the place where the family of health professional candidates lived (p> 0.05). Similar results were obtained in other studies conducted on university students. It can be said that this situation stems from the fact that the age of the students who participated in the non-stealing is mostly from the younger age group and that the concept of compassionate care has not been fully understood yet [18, 20].

In the study, compassion levels of women were significantly higher than men's compassion levels. Similar to this result, it was stated in the literature that the general mean points of compassion scale of women were higher than men [21-23]. This result can be thought to be due to the fact that female gender is more affectionate and emotional by nature.

In the study, according to the department variable, the mean of compassion level compassion scale and subscale scores of nursing department students was higher than the other departments and was significant. It can be said that this difference stems from the fact that students in this department receive holistic care education. Although the level of compassion was previously measured in nursing and educational sciences students, a study on health sciences students was not available in the literature. Therefore, no comparison was made. Because of this feature, it can be said that this study will contribute to the literature.

In terms of the compassion scale mindfulness sub-dimension, the mean scores of the first grade were found to be significantly higher than the fourth grade. This difference may be related to the personality characteristics of the first year students.

Significant differences were found between those with high income level of compassion scale and those with low and meddle income levels. The subscale scores of those with high income status common humanity were found to be significantly lower than those with middle and low income status. Cingöl et al. [18] found similar results to the results of this study. This results may suggest that middle and low income students may have more compassion for their experiences of distress and happiness.

5. CONCLUSION:

It requires a holistic approach to providing compassionate care. Health professional candidates, who will become healthcare professionals of the future, need to be compassionate to communicate optimally with patients, to serve as their advocates, and to assist when patients cannot meet their individual needs, to provide optimal better care. With the help of compassionate care practices

that can be a quality indicator, patient satisfaction levels can be raised and the patient's comfort and well-being can be ensured. It is thought that compassionate care practices will positively affect symptom management in all care process.

According to the results of the research, it can be stated that although the students have different demographics, it is expected that compassion levels will be high and empathy levels will be high and the quality of health services will be high. However, not only the quality of the current service, but also the sustainability of the service is important in a service process, especially in the provision of a service that has dedicated the global public, such as health. When given training in Turkey in the field of health sciences and human quality of existing as a whole, it can be stated that such an achievement is above average compared to the existing facility. In other words, there is an employee quality above the human resource that can be obtained with the available resources. The sacrificing and successful work of the academicians, especially the lecturers, plays an effective role in ensuring this. For this reason, it is considered beneficial to make research results on a wider sample and to give in-service trainings to compassion students at the faculty of health sciences both during undergraduate education and after graduation.

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