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Beliefs of paramedic students toward mental illness and patient

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Abstract

The aim of this study is to examine the beliefs of paramedic students studying in a university toward mental illness and patient. 113 paramedic students studying in a university participated in this descriptive and cross-sectional study. Two forms were used to collect data of the study. The first part including the socio-demographic characteristics was composed of 10 questions and it was prepared by the researchers in accordance with the literature. In the second part, Beliefs toward Mental Illness Scale (BMI) composed of 21 questions was used. Percentage, frequency, independent samples t-test, analysis of variance and Kruskal Wallis were used to evaluate the data. It was determined that 66.4% of the paramedic students participating in the study were involved in the age group of 18-20 years, 57.5% were female, 51.3% were 1st-year students, 61.1% were graduated from vocational school of health, 66.4% had a middle income level and 93.8% had no mental illness. It was determined that 85.8% of the students met with an individual with mental illness and 44.2% had an individual with a mental illness in their immediate surroundings. BMI subscale mean scores of the students were 29.49±8.16 for "incurability/poor social and interpersonal skills", 22.23±6.63 for "dangerousness", and 0.78±1.39 for "shame" and their total mean score was 52.51±13.46. The distribution of BMI total mean scores of the students was found to be significant in terms of having a someone with a psychiatric disorder in the immediate surroundings ($p<0.05$) and insignificant in terms of age, gender, class, and status of having any mental illness ($p>0.05$). In accordance with the findings obtained in the study, it was concluded that the students participating in the study had moderate, and even close to negative, beliefs toward mental illnesses. Developing the mental patient and disease-related awareness of paramedic students who will perform the first intervention for urgent mental patients in their professional lives is important in terms of the efficiency of the treatment and care provided for patients. Stigmatization awareness is suggested to be developed in paramedic students.

Keywords: Belief, mental illness, paramedic students

Introduction

Mental illnesses, which make up about 14% of all illnesses in the world, affect more than 450 million individuals worldwide [1]. The World Health Organization defines stigmatization as "a sign of shame, discredit and disapproval that results in the rejection, discrimination and exclusion of the individual from many areas of society" [2]. Stigmatization of mental illnesses is a worldwide condition, and its negative impact on individuals with mental disorders has survived to the present day [3]. Stigmatization of the people with mental illnesses may affect negatively searching for appropriate and efficient support [4], compliance to treatment, having treatment within the society [5], and the adaptation of the mental patients to society in order to cope with the illness [6,7].

The university students come from different cultural structures of society and they are affected by the beliefs of the society they have raised in toward the mental illnesses [8,9]. For this reason, determining the beliefs of the paramedic students towards mental illnesses and the factors affecting these beliefs contributes to the preparation of the training programs for reducing the negative beliefs against mental illnesses.

The attitudes toward mental patients and illnesses have brought the "stigma" concept. Stigma is defined as a situation threatening the reputation of an individual or a group and causing the feeling of embarrassment for them and a disgrace indicating that something is not accepted to be normal [10]. Sartorius states that healthcare professionals have an important role in stigmatization of the individuals with mental illnesses [11]. In a study conducted with the nursing school students, it was found that nursing students impose restriction in close relationships with mental patients (having a heart-to-heart talk, sharing the same room, traveling together for a long time, marrying etc.) [10].

There are a limited number of studies on the knowledge, attitude and behavior of healthcare professionals toward mental patients

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and illnesses. The attitudes of healthcare professionals towards mental patients and illnesses is one of the most important factors affecting the patients with mental disorders to get the necessary support. Healthcare professionals are among the main occupational groups who are frequently in contact with the patients with mental illnesses [12].

Negative attitudes and behaviors caused by society and healthcare professionals will cause the individuals with mental illnesses to cope with these illnesses ineffectively and have an impaired quality of lives. But, the purpose of mental care is to allow the patients to continue their productivity in society and enhance their quality of life [10].

"Paramedics are healthcare professionals having associate degrees and working in emergency services and ambulances in the field of pre-hospital Emergency Health Services (EHS) [13]." The teams working in pre-hospital emergency health services provide service directly for the individuals with psychiatric disorder or the individuals with physical illness who act abnormally [14]. Psychiatric emergency care should be performed in a limited time and with efficient measures. Fast and correct referral of paramedics for patients will help patients and their relatives to get rid of the material and mental burdens of these illnesses with the least harm. The fact that emergency psychiatric care is performed successfully may prevent a second emergency case and increases the adaptation of patients to the following treatments [15]. For this reason, paramedics should provide an effective care for mental patients. Possible stigmatization against mental patients and illnesses take precedence over communicating with patients.

The thoughts of paramedic students, who will be in contact with these patients during their professional lives, about the patients with mental illnesses will affect their attitudes and behaviors towards these patients. This study is original and was conducted to determine the beliefs and influencing factors of paramedic students about mental illnesses and illnesses

Material and Methods

Design

The study was a descriptive and cross-sectional.

Sample

The universe of this descriptive and cross-sectional study consisted of 1st grade (n1 = 58) and 2nd grade (n2 = 55) students (nTOTALLY=113) studying at Firat University Kovancilar Vocational School in the 2019-2020 academic year. All students volunteered to participate in the study and completed the questionnaires completely. The sample of the study was composed of 113 students who were voluntary to participate in the study, answered all the questions, and were present at the school between January-June 2019. After the students were informed about the research, the students who accepted to participate in the study were given a data collection form consisting of "Socio-demographic Information Form" and "Beliefs Toward Mental Illness Scale" in the classroom and were asked to answer them; it was collected 30 minutes after the form was distributed.

Measures

In the study, "Socio-demographic information form" and "Beliefs toward Mental Illness Scale" were used as the data collection tools.

Socio-demographic Information Form

This form prepared by the researcher in accordance with the relevant literature [10,12] to determine the socio-demographic characteristics of paramedic students participating in the study was composed of 10 questions.

Beliefs Toward Mental Illness Scale (BMI)

BMI was developed by Hirai and Clum [16], its reliability and validity study was conducted by Bilge and Çam [17] and it is composed of 21 items. In BMI, there is no grouping such as "psychotic" or "nonpsychotic" for mental illness. There are general expressions in the scale items assessing the belief toward mental illness such as "mental illness" and "the individual with mental illness". The expressions in the scale include negative beliefs about mental illnesses. For this reason, the score obtained from the scale indicates the negative belief level on mental illnesses. The scale used in the study and assessing the negative belief towards mental illnesses does not have a cutoff point. The scale is interpreted on the basis of both total score and subscale scores, and high scores from the scale and subscales indicate negative beliefs. BMI is a 6-point likert scale and it is scored as follows: "exactly disagree" (0), "mostly disagree" (1), "partly disagree" (2), "partly agree" (3), "Mostly agree" (4), and "exactly agree" (5). The scale is interpreted based on both the total score and subscale scores.

BMI is composed of three subscales:

Dangerousness subscale: It is composed of 8 items related to the dangerousness of mental illnesses and patients and the score to be obtained from the subscale ranges between 0 and 40. The subscale includes items 1, 2, 3, 4, 5, 6, 7, and 13.

Incurability/poor social and interpersonal skills subscale: It is composed of 11 questions including the effect of mental illnesses on interpersonal skills and the related despair. It expresses being prevented in interpersonal communication with the individuals with mental illnesses and being desperate. The score to be obtained from the subscale ranges between 0 and 55. The subscale includes 8, 9, 10, 11, 14, 16, 17, 18, 19, 20 and 21 items.

Shame subscale: It is composed of 2 items expressing that mental illness is a shameful situation and the score to be obtained from the subscale ranges between 0 and 10. The subscale includes items 12 and 15 [17].

In the validity and reliability study conducted by Bilge and Çam [17], the total Cronbach's alpha coefficient of the scale was determined as 0.82. In this study, the Cronbach's alpha coefficient was found to be 0.78.

Ethical Considerations

This study was conducted in compliance with the principles of the Helsinki Declaration. Ethical approval for this study was obtained from Firat University Non-Interventional Research

Ethics Committee (Date: 18.12.2018, Issue: 300447). Institutional permission was obtained for this study. The researchers explained the purpose of the research, roles of participants, benefits and potential risks of the study, and their right to withdraw at any time.

Data Analysis

To analyse the collected data, the IBM SPSS Statistics 22 (IBM SPSS, Turkey) program was used for statistical analysis. The suitability of the data for normal distribution was evaluated by the kolmogorov smirnov test. Percentage, frequency, independent samples t-test and kruskal wallis were used to evaluate the data. The data were analyzed at confidence interval of 95% and significance level of $p < 0.05$.

Results

It was determined in the study that 66.4% of the paramedic students participating in the study were from the age group of 18-20 years, 57.5% were female, 99.1% were single, 51.3% were 1st-year students, 61.1% were graduated from vocational school of health, 66.4% had a middle income level and 93.8% did not have any mental illness (Table 1). It was determined that 85.8% of the students encountered with an individual with mental illness before,

44.2% had an individual with mental illness in their immediate surroundings, and 15.9% of these individuals were their relatives (Table 1).

When examining Beliefs Toward Mental Illness Scale Subscale and Total Mean Scores of Paramedic Students, it was determined that the dangerousness subscale mean score was 22.23 ± 6.63 , the incurability/poor social and interpersonal skills subscale mean score was 29.49 ± 8.16 , the shame subscale mean score was 0.78 ± 1.39 and the total mean score of the scale was 52.51 ± 13.46 (Table 2).

In the comparison of the beliefs toward mental illness scale total mean scores based on the descriptive characteristics of the paramedic students, no statistically significant difference was found between age groups, gender, year in the university, high school graduated, income level, the status of encountering with an individual with mental illness, presence of any mental illness and the scale total mean score ($p > 0.05$) and the difference between the presence an individual with mental illness in the immediate surroundings and the degree of affinity of the individual with mental illness and the scale total mean score was statistically significant ($p < 0.05$) (Table 3).

Table 1. Distribution of the Paramedic Students in terms of Their Descriptive Characteristics (s=113)

Descriptive Characteristics	s	%
Age Groups		
18-20	75	66.4
21-23	34	30.1
24-25	4	3.5
Gender		
Female	65	57.5
Male	48	42.5
Marital status		
Married	1	0.9
Single	112	99.1
Year in the university		
1	58	51.3
2	55	48.7
High School		
Vocational School of Health	69	61.1
Other (Regular, Anatolian high school etc.)	44	38.9
Income Status		
High	30	26.5
Middle	75	66.4
Low	8	7.1
Status of encountering with an individual with mental illness before		
Yes	97	85.8
No	16	14.2
The presence of Individual with Mental Illness in the Immediate Surroundings		
Yes	50	44.2
No	63	55.8
If any, Degree of Affinity		
Relative	18	15.9
Friend	13	11.5
Neighbor	20	17.7
My Patient	4	3.5
Do You Have any Mental Illness?		
Yes	7	6.2
No	106	93.8

Table 2. Beliefs toward Mental Illness Scale Subscale and Total Mean scores of the Paramedic Students

Scale	Min-Max Score	Mean±SD
Dangerousness	6-39	22.23±6.63
Incurability/poor social and interpersonal skills	11-51	29.49±8.16
Shame	0-6	0.78±1.39
Total Score	19-90	52.51±13.46

Table 3. The Comparison of Beliefs toward Mental Illness Scale Total Mean Scores According to the Descriptive Characteristics of the Paramedic Students

Descriptive Characteristics	s	%	Beliefs Toward Mental Illness Scale Total Score
Age Groups*			
18-20	75	66.4	52.22±13.87
21-23	34	30.1	54.38±11.99
24-25	4	3.5	42.00±15.79
Test value and significance			KW=2.523 p=0.283
Gender**			
Female	65	57.5	53.84±13.25
Male	48	42.5	50.70±13.67
Test value and significance			t=1.227 p=0.222
Year in the university**			
1			52.21
2	58	51.3	52.81
Test value and significance	55	48.7	t=-0.233 p=0.816
High School*			
Vocational School of Health	69	61.1	52.10±13.90
Other (Regular, Anatolian high school etc.)	44	38.9	53.15±12.86
Test value and significance			t=-0.406 p=0.686
Income Level*			
High	30	26.5	50.23±15.60
Middle	75	66.4	54.01±12.22
Low	8	7.1	47.00±15.16
Test value and significance			KW=1.859 p=0.395
Status of encountering with an individual with mental illness before**			
Yes	97	85.8	51.84±12.96
No	16	14.2	56.56±16.06
Test value and significance			t=-1.303 p=0.195
Presence of an Individual with Mental Illness in the Immediate Surroundings**			
Yes	55	48.6	47.56±12.92
No	58	51.3	56.53±12.83
Test value and significance			t=-2.392 p=0.006
If any, Degree of Affinity*			
Relative	18	15.9	50.94±11.28
Friend	13	11.5	41.00±10.83
Neighbor	20	17.7	52.00±14.04
My Patient	4	3.5	38.75±13.81
Test value and significance			KW=8.644 p=0.034

*Kruskal Wallis Test ** Independent sample t test

Discussion

According to the World Health Report published, more than 450 million people around the world are experiencing mental problems. Although mental illnesses are very common, very few people turn to healthcare professionals for medical help. It is estimated that the negative attitude and stigma developed by the society despite mental illnesses are effective in this [18]. BMI subscale mean scores of the students were 29.49 ± 8.16 (min.-max.: 11-51) for "incurability/poor social and interpersonal skills" subscale, 22.23 ± 6.63 (min. – max.: 6-39) for "dangerousness" subscale, and 0.78 ± 1.39 (min.-max.: 0-6) for "shame" subscale and the total mean score was 52.51 ± 13.46 (min.-max.: 19–90). The high score obtained from the overall scale and its subscales indicates negative belief [17]. The scale used in the study and assessing the negative belief towards mental illnesses does not have a cutoff point. For this reason, when the scores obtained in the scale were compared with the maximum score to be obtained in the scale [18] and the total mean score was taken into consideration, it may be mentioned that the beliefs of the students toward mental illness were at the medium level and even close to negative. However, it was determined that students perceive individuals with mental illnesses as dangerous, and they think they experience frustration and despair in interpersonal relationships with individuals with mental illnesses. It was determined in the studies by Kayahan and Çıtak et al., to determine the attitudes of nursing students toward mental illnesses that nursing students displayed a positive attitude toward mental illnesses [18,19]. In the study conducted by Günay et al., to examine the beliefs of nursing students toward mental illness, they determined that the students had a moderate and even close to positive beliefs [20]. This result is not compatible with results of the present study. It is thought that the wider emphasis on psychiatric diseases in nursing education and the opportunity of nursing students to provide care to patients with mental illnesses after their psychiatric internship increases the positive beliefs of nursing students towards mental illness. Chauhan et al. (2017), in a study examining the attitudes and beliefs of medical students towards individuals with mental illness, found that students had a negative attitude towards individuals with mental illness [21]. In the study in which Tarım and Yılmaz (2018) examined the beliefs of university students studying in the field of health, the beliefs towards mental disorders subscale mean scores were 23.46 ± 8.06 from the dangerous subscale, 28.81 ± 13.56 from the helplessness and disruption in interpersonal relations subscale, and shame, respectively. It was determined that he received 2.51 ± 2.98 points from the subscale and 54.79 ± 22.52 points from the total scale score. It has been determined that students perceive individuals with mental illnesses as dangerous, experience frustration and helplessness in interpersonal relationships with individuals with mental illness, and have negative beliefs about mental illnesses [22]. This finding is in line with the finding we obtained in our study. The limited inclusion of psychiatric diseases in paramedic education and the absence of psychiatry internships for paramedic students cause students to have insufficient knowledge about mental illnesses and diseases. For this reason, paramedic students' beliefs about mental illness and illness are thought to be moderate or even close to negative.

No significant correlation was determined between the ages of the students and BMI total mean scores ($p > 0.05$). In their study

investigating the beliefs of nursing students toward mental illnesses, Günay et al., found no significant correlation between the ages of the students and BMI total score and subscale mean scores [20]. The study findings are compatible with findings of the present study. In other studies examining age and the attitude toward mental illnesses, it was reported that age was associated with developing positive attitudes. However, in these studies, no consensus was built about whether being younger or older is effective [23-25].

No statistically significant difference was determined in distribution of BMI mean score based on the gender of the students ($p > 0.05$). Ünal et al., and Riana AR et al., found in their studies that the attitude toward mental illnesses was not affected by gender [26,27]. The finding of the present study has similarity with these studies. However, there are also studies in the literature indicating that there is a correlation between gender and the belief toward mental illnesses. In the study conducted by Günay et al., with nursing students, it was determined that the female students had more positive attitudes compared to the male students [20]. Köşger and Altınöz (2019), in their study examining the attitudes of medical faculty students towards mental illnesses, found that female students had more positive attitudes than male students [28]. In the other studies, it was found that women had more positive attitudes toward mental illnesses compared to men, they had more positive thoughts about the treatability of these illnesses and they kept less social distance between them and their patients [29-31].

No significant difference was determined in distribution of BMI total mean scores based on the income level of the paramedic students ($p > 0.05$). Ünal S et al. [26], determined in their study that the students from the families with medium income level considered the individuals with mental illness to be more dangerous. The result of the present study did not have similarity with the result of this study.

No significant difference was determined in distribution of BMI total mean score based on the year of the students in the university ($p > 0.05$). Paramedic students take Pre-Hospital Emergency Care in Behavioral Disorders and Psychiatric Diseases training in Emergency Patient Care course in the 2nd year. In the study conducted by Günay et al., with nursing students, no significant difference was determined in distributions of BMI total score and subscale mean scores based on the years of the students in their university and their status of performing practice [20]. Similarly, it has been reported that the practice experience of the medical faculty students in psychiatry clinics increases their knowledge on mental illnesses but its effect on their attitudes toward mental illness is controversial [30,32]. The study finding is parallel with the literature. However, in a similar study by Birdoğan and Berksun, it was determined that the 6th -year medical students had a more positive attitude toward mental patients compared to the 1st year students and the 1st-year students perceived mental patients more dangerous compared to the 6th-year students. The study finding is not parallel with this study [33]. In the study of Birdoğan and Berksun, it is thought that 6th grade medical faculty students' psychiatry education and psychiatry internship was effective in this. It is thought that beliefs towards mental illness and illness did not change between classes due to the lack of sufficient level of

psychiatry training in paramedic training and the lack of psychiatry internship.

It was determined that there was a statistically significant difference between the paramedic students' presence of having an individual with mental illness in their immediate surroundings and their total scale mean score ($p < 0.05$). It has been determined that students who have mental illnesses around them develop a more positive attitude towards mental illness and illness compared to others. In the study conducted by Günay et al., with nursing students, a statistically significant difference was determined in distribution of BMI "incurability/poor social and interpersonal skills" subscale and total mean score of the nursing students based on the presence of diagnosed psychiatric disorder in their immediate surroundings ($p < 0.05$) [26]. In their study, Ünal et al., found that the status of having a relative with psychiatric disorder decreased the belief of the students regarding that the psychiatric patients are dangerous and psychiatric disease is a shameful situation [26]. Köşger and Altınöz (2019), in their study with medical faculty students, found that students with mental illness around them developed more positive attitudes towards mental illnesses compared to those who did not [28]. Duman et al. (2019), in their study examining the effect of medical education on attitudes towards mental illness, found that term 6 students with a mental illness had a more positive attitude compared to term 1 students [34]. The study findings support the finding of this study. It is thought that students will get to know mental illnesses better by having psychiatric illnesses around them and thus, they will develop a more positive attitude towards mental illness.

Conclusion

In accordance with the findings obtained in the study, it was concluded that the students participating in the study had moderate, and even close to negative, beliefs toward mental illnesses. Paramedics are one of the occupational groups that perform the first medical intervention in emergency cases and disasters in and out of hospitals. Stigmatization awareness is suggested to be developed in paramedic students. Training programs should be provided for raising the awareness of the paramedic students. In this context, it may be helpful to include stigma in the curriculum of the paramedic department. They should be allowed to visit psychiatric services during their professional practice internship to contact more with the

Conflict of interests

The authors declare that they have no competing interests.

Financial Disclosure

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Ethics committee approval

Ethical approval for this study was obtained from Firat University Non-Interventional Research Ethics Committee (Date: 18.12.2018, Issue: 300447).

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