New Trends and Issues Proceedings on Advances in Pure and Applied Sciences

Issue 13 (2021) 097-112

www.propaas.eu

Selected paper of 5th International Congress of Nursing (ICON-2021), AAB University, Pristina, Kosovo.24-26 September,2021 (ONLINE CONFERENCE)

The effects of nursing students' beliefs towards mental illnesses on their stigmatisation tendencies

Sevil Masat Harbali*, Nursing Department, Health Science Faculty, Ondokuz Mayis University, 55200 Samsun, Turkey. https://orcid.org/0000-0002-5880-1981

Zeliha Koc, Health Science Faculty, Ondokuz Mayis University, 55200 Samsun, Turkey. https://orcid.org/0000-0002-8702-5360

Suggested Citation:

Harbali, S. M. & Koc, Z. (2021). The effects of nursing students' beliefs towards mental illnesses on their stigmatisation tendencies. *New Trends and Issues Proceedings on Advances in Pure and Applied Sciences*. [Online]. *0*(13), 097–112. Available from: www.propass.eu

Received from September 30,2021; revised from November 30,2021; accepted from December 11,2021.
Selection and peer review under responsibility of Prof. Dr. Dogan Ibrahim, Near East University, Cyprus.

Abstract

Negative attitudes towards mental illnesses may have a negative effect on patients' coping with the disease effectively, managing care and their quality of life. This study was planned to find out the effects of nursing students' beliefs towards mental illnesses on their stigmatisation tendencies. This descriptive and correlational study was conducted between 05.06.2021 and 20.06.2021 with the participation of 235 students who were studying at Ondokuz Mayis University, Faculty of Health Sciences, Department of Nursing and who were willing to participate in the study. The data in the study were collected by using a survey form consisting of 25 questions to find out the sociodemographic characteristics of the students and their attitudes towards mental illnesses and Beliefs towards Mental Illness Scale and Stigma Scale. The normality distribution of the data was examined with Kolmogorov–Smirnov test, while analysis of variance test and *t*-test were used in the evaluation of data which were normally distributed, Kruskal–Wallis and Mann–Whitney U test were used in the comparison of data which were not normally distributed. The correlation between the scales and sub-dimensions was examined with Spearman's correlation analysis. It was found that 72.3% of the participants were female and 27.7% were male, 74.9% had grown up in a nuclear family, 37.4% had a democratic family structure, 77.9% chose the profession of nursing willingly, 57.4% had received information about mental illnesses, 62.1% did not have any relatives with mental illness, 31.6% described the main reason of mental illnesses as conflicts in the family, 63.8% stated that they wanted to provide care to individuals with mental illness and the mean age of the participants was found as 20.71 ± 1.91. The mean Beliefs towards Mental Illness Scale score was found as 46.60 ± 18.37, while the mean Stigma Scale score was found as 44.30 ± 12.88. Beliefs towards Mental Illness Scale and Stigma Scale total scores were found to differ in terms of some sociodemographic characteristics of the students ($p < 0.05$). A positive moderate correlation was found between students' Beliefs towards Mental Illness Scale scores and Stigma Scale scores. It was found that nursing students who participated in

* ADDRESS FOR CORRESPONDENCE: **Sevil Masat Harbali**, Nursing Department, Health Science Faculty, Ondokuz Mayis University, 55200 Samsun, Turkey.
E-mail address: svlmst@gmail.com

the study had negative beliefs towards mental illness, they had low stigmatisation tendencies and their stigmatisation tendency decreased as their negative beliefs towards mental illnesses decreased. In line with the results obtained, it is recommended to find out nursing students' beliefs towards mental illnesses and their stigmatisation tendencies and to include these subjects in the nursing education curriculum.

Keywords: Belief, mental illness, nursing, nursing student, stigmatisation

1. Introduction

Stigmatisation is a situation that occurs when certain groups are excluded in society for various reasons. It can be observed in different social areas such as media, education, business and health [1]. This situation may occur due to illnesses, as well as reasons such as language, religion, race and disability [2]. Mental illnesses constitute 14% of the global disease burden and there are approximately 450 million individuals with mental health problems [3]. Stigma, which is an issue that attracts attention in many areas of health, stands out more in mental illnesses. The most important variables that determine the society's perspective on mental illnesses are the perceptions that patients are 'dangerous' and 'unpredictable' individuals [4]. When individuals or the society are faced with situations that frighten or disturb them, they usually resort to exclusion or alienation. This situation forms the basis of stigmatisation and discrimination against mental illnesses [5]. Stigmatised individuals assume an insignificant and worthless social identity [6]. As a result of this, individuals with mental illnesses and their relatives avoid living close to other people, being active in the society and seeking healthcare and are excluded from the society [3], [7].

It is seen that family, friends and media are the leading factors that play a role in stigmatisation of individuals with mental illnesses [6], [8]. In some of the studies conducted on the issue, it has been reported that in addition to other segments of the society, stigmatising attitudes towards mental illnesses are also common among healthcare professionals [5], [9]. This situation may affect individuals with mental illness and their families during the treatment process [10]. These individuals may refrain from seeking remedy for symptoms of the illness and seeking treatment, with the thought that they will be excluded and rejected by the society. Since negative attitudes and beliefs about mental illnesses are society based, stigmatising attitudes can be observed in nursing students before they start their profession. In a study conducted, it was found that students who had never met such patients considered mental illness as something to be ashamed of and they thought such patients were dangerous [11].

Perceptions and attitudes of nursing students, who will work with individuals experiencing mental problems while providing care to patients in clinical practices and who will provide direct care to such individuals in the future, towards mental illnesses are considered as factors that may affect the quality of care. One of the factors that are important in providing qualified care is enabling students to get rid of negative beliefs and attitudes that they have during the professionalisation process. It has been reported in the literature that the education given on mental illnesses during nursing education has a positive effect on students' perspectives and decreases their prejudices and negative attitudes [3], [10], [12], [13]. In a study conducted to evaluate the attitudes of nursing students towards mental illnesses and mental illness patients, it was found that education had a significant role in students' developing positive attitudes towards individuals diagnosed with mental illness [14]. Therefore, it is very important to find out the beliefs and attitudes and stigmatisation tendencies of nursing students, who will work among the health professionals of the future, towards individuals diagnosed with mental illness and to plan interventions to eliminate negative attitudes in terms of the quality of healthcare. For effective and efficient planning of education and development activities, it is of priority to find out the level of belief and stigmatisation tendencies of students towards mental illnesses. This study was planned to identify the beliefs and stigmatisation tendencies of nursing students towards individuals with mental illness.

1.1. Objective of the study

This study was planned to identify the beliefs and stigmatisation tendencies of students studying in nursing department towards mental illnesses. Answers were sought to the following questions:

- What are the sociodemographic characteristics of nursing students?
- How are the attitudes of nursing students towards mental illnesses?
- Is there a relationship between sociodemographic characteristics of nursing students and their beliefs and stigmatisation tendencies towards mental illnesses?

2. Material and methods

2.1. Place and time of the research

This descriptive and correlational study was conducted between 05.06.2021 and 20.06.2021 with the participation of 235 students who were studying at Ondokuz Mayis University, Faculty of Health Sciences, Department of Nursing and who volunteered to participate in the study.

2.2. Population and sample of the research

In determining the sample size of the research, the formula which is used to determine the number of individuals to be included in the sample in cases where the population is known was used [15], [16]. For a sample size of 528 individuals studying in the Department of Nursing, the minimum sample size was calculated as 223 students with a 95% confidence interval. Considering that there may be loss of data, the data collection process was completed when the number 235 was reached. Volunteering students who accepted to participate in the study and who were studying in the nursing department were included in the study.

2.3. Tools for data collection

In the study, the data were collected with a 25-question survey form to find out the sociodemographic characteristics of students and their attitudes towards mental illnesses and the Beliefs towards Mental Illness Scale and the Stigma Scale. The survey forms were tested with a pre-application on a group of 10 people and the students who participated in the pilot study were not included in the sample. Before starting the study, ethics committee permission was taken from Ondokuz Mayis University Social and Human Sciences Ethics Committee. After the students were informed about the study and their informed consents were taken, the data were collected by the researchers.

2.3.1. Beliefs towards Mental Illness Scale

Beliefs towards Mental Illness Scale was developed in America by Hirai and Clum [17] and its validity and reliability study was conducted by Bilge and Cam [18] for the Turkish society. The scale was developed to find out the positive and negative beliefs of individuals with different cultures towards mental illness. It has three subscales as dangerous, incurability and disturbance in interpersonal relationships and shame. The Beliefs towards Mental Illness Scale is a 21-item 6-point Likert-type scale which is scored between '0 = totally disagree' and '5 = totally agree'. The range of points that can be obtained from the scale is between 0 and 105, and the scale is interpreted on both overall score and subscale scores. High scores from the scale and subscales express negative beliefs against mental illness.

In the validity and reliability study by Bilge and Cam [18], while Cronbach's alpha reliability coefficient of the scale was found as 0.82, Cronbach's alpha reliability coefficients of the subscales were found as 0.71, 0.80 and 0.69, respectively, for dangerous, incurability and disturbance in

interpersonal relationships (CKIB) and shame subscales. In this study, while Cronbach's alpha reliability coefficient of the scale was found as 0.91, Cronbach's alpha reliability coefficients of the subscales were found as 0.83, 0.85 and 0.83, respectively, for dangerous, incurability and disturbance in interpersonal relationships (CKIB) and shame subscales. Permission was taken from Bilge and Cam [18] who adapted the scale into Turkish to use the 'Beliefs towards Mental Illness Scale'.

2.3.2. Stigma Scale

The Stigma Scale was developed by Yaman and Gungor [19] to measure the tendency of psychological stigmatisation in individuals. The scale was prepared in the form of a 5-point Likert scale with totally disagree, disagree, partly agree, agree and totally agree. The scale has a total of 22 items and 4 factors as discrimination and exclusion, labelling, psychological health and prejudice. Discrimination and exclusion factor measures perceptions of discrimination and exclusion as a result and indicator of stigmatisation tendency. Labeling factor measures the tendency to label individuals according to gender, marital status, age, origin and sexual preference. Psychological health factor evaluates the tendency to stigmatise individuals who have psychological problems and communication problems. Prejudice factor determines the tendency to stigmatise by creating prejudice in individuals according to criminal tendency, world view, lifestyle and individual characteristics.

The range of points that can be taken from the scale vary between 22 and 110; a score below 55 shows that stigmatisation tendency is low, while a score above 55 shows that stigmatisation tendency is high. According to the reliability analysis by Yaman and Gungor [19], Cronbach's alpha reliability coefficient of the scale was found as 0.84, while Cronbach's alpha reliability coefficients of the factors were found as 0.77, 0.68, 0.66 and 0.54 for discrimination and exclusion, labelling, psychological health and prejudice factors, respectively. In this study, Cronbach's alpha reliability coefficient of the scale was found as 0.90, while Cronbach's alpha reliability coefficients of the factors were found as 0.90, 0.76, 0.76 and 0.65 for discrimination and exclusion, labelling, psychological health and prejudice factors, respectively.

2.4. Data collection

The students were explained that the decision to participate in the study was entirely their own and that the data collected would be used only within the context of the study. In order to collect data, ethics committee approval from the institution and informed consent from the students who participated in the study were taken. It took approximately 15–20 minutes to collect the data.

2.5. Data analysis

Statistical analysis of the research data was carried out by using SPSS 21 package programme in a computer environment. Normality distribution of the data was examined with Kolmogorov–Smirnov test. While analysis of variance and *t*-test were used for evaluating the normally distributed data, Kruskal–Wallis and Mann–Whitney U test were used in the comparison of data which were not normally distributed. The relationships between the scales and their subscales were examined with Spearman's correlation analysis.

3. Results

It was found that 72.3% of the students in the study were female, while 27.7% were male; mothers of 45.5% were primary school graduates, mothers of 76.6% were housewife, fathers of 31.9% were high school graduates and fathers of 26.8% were self-employed; 74.9% were living in a nuclear family, 37.4% had a democratic family structure, 83.8% had social insurance, 63.4% had income equal to expense, 43.8% were living in city centre, 77.9% had chosen nursing profession willingly, 71.9% loved nursing profession, 81.7% did not want to change the nursing profession and 92.3% did not have any health problems; 57.4% had information about mental illnesses and 29% of those who had

information about mental illnesses had received this information from the Internet, while 27% had received from school; 62.1% did not have any relatives with mental illness, 21.3% stated that providing care to individuals with mental illness made them feel compassion, 31.6% stated that the main reason for mental illnesses was family conflicts, 63.8% stated that they wanted to provide care for individuals diagnosed with mental illness and the mean age was found as 20.71±1.91 years (Table 1).

Table 1. Frequency distribution of students' sociodemographic characteristics and their views on mental illnesses (*n* = 235)

		n	%
Mean age	20.71 ± 1.91		
Year of study	First year	88	37.4
	Second year	55	23.4
	Third year	42	17.9
	Fourth year	50	21.3
Gender	Female	170	72.3
	Male	65	27.7
Marital status	Single	235	100
	Married	0	0
Maternal educational status	Illiterate	7	3.0
	Literate	7	3.0
	Primary	107	45.5
	Secondary	55	23.4
	High school	46	19.6
	Undergraduate	13	5.5
Mother's profession	Housewife	180	76.6
	Officer	7	3.0
	Retired	8	3.4
	Worker	35	14.9
	Farmer	2	0.9
	Deceased	3	1.3
Paternal educational status	Literate	5	2.2
	Primary	71	30.2
	Secondary	51	21.7
	High school	75	31.9
	Undergraduate	33	14.0
Father's profession	Officer	27	11.5
	Retired	45	19.1
	Worker	62	26.4
	Farmer	23	9.8
	Self-employed	63	26.8
	Unemployed	2	0.9
	Deceased	13	5.5
Family type	Extended	59	25.1
	Nuclear	176	74.9
Family structure	Democratic family	88	37.4
	Oppressive and authoritarian family	32	13.6
	Overprotective family	47	20.0
	Over-tolerant family	22	9.4
	Perfectionist family	15	6.4
	Indifferent and uninvolved family	6	2.6

	Unstable family	25	10.6
Presence of social insurance	Yes	197	83.8
	No	38	16.2
Income status	Income<expense	45	19.1
	Income=expense	149	63.4
	Income>expense	41	17.4
Place of residence	City	103	43.8
	Town	95	40.4
	Village	37	15.7
Did you choose the nursing department willingly?	Yes	183	77.9
	No	52	22.1
	Partly	0	0
Do you like the nursing profession?	I do	169	71.9
	I don't	11	4.7
	Undecided	55	23.4
Are you considering changing your profession?	Yes	43	18.3
	No	192	81.7
Do you have any health problems?	Yes	18	7.7
	No	217	92.3
If your answer is 'yes', what are your health problems?	Allergy	1	0.4
	Asthma	3	1.3
	Allergic bronchitis	1	0.4
	Celiac	1	0.4
	Haemorrhoids	1	0.4
	Cardiac disease	2	0.8
	Myopic	5	2.1
	Reflux	1	0.4
	Psoriasis	1	0.4
	Diplopia	1	0.4
	Type 1 DM	1	0.4
Have your received information about mental illnesses?	Yes	135	57.4
	No	100	42.6
If your answer is 'Yes', where have you received this information?	Family	26	8.5
	School	83	27.0
	Internet	89	29.0
	Social media	65	21.2
	Social circle	44	14.3
Do you have a relative/friend with mental illness?	Yes	89	37.9
	No	146	62.1
If your answer is 'Yes', what is your relationship with the person with mental illness?	Mother	13	11.8
	Father	12	10.9
	Sibling	7	6.4
	Relative	46	41.8
	Friend	32	29.1
What are the emotions/feelings you have for providing care to	Fear	123	20.1
	Pity	62	10.1
	Anger	13	2.1
	Distress	75	12.3
	Excitement	64	10.5

individuals with mental illness?	Compassion	130	21.3
	Curiosity	144	23.6
	Traumatic events (events such as earthquakes, floods)	195	28.0
What do you think are the main reason/reasons of mental illnesses?	Family conflicts	220	31.6
	Infectious diseases	61	8.8
	Religious problems	66	9.5
	Supernatural powers such as magic	55	7.9
	Hereditary predisposition	99	14.2
Do you want to provide care to individuals diagnosed with mental illness?	Yes	150	63.8
	No	85	36.2

While the Beliefs towards Mental Illness Scale overall score of the students was found as 46.60 ± 18.37, their dangerous, incurability and disturbance in interpersonal relationships and shame subscales mean scores were found as 21.86 ± 7.87, 23.47 ± 10.36 and 1.27 ± 2.27, respectively. While the Stigma Scale overall score was found as 44.0 ± 12.88, discrimination and exclusion, labelling, psychological health and prejudice factors mean scores were found as 8.41 ± 3.99, 11.08 ± 4.29, 10.35 ± 3.96 and 14.45 ± 3.85, respectively (Table 2).

Table 2. Overall scores, subscale mean scores, standard deviation and median values of Beliefs towards Mental Illness Scale and Stigma Scale

	Mean ± SD	Median (Min–Max)
Beliefs towards Mental Illness Scale		
Dangerous	21.86 ± 7.87	22 (0–40)
Incurability and disturbance in interpersonal relationships	23.47 ± 10.36	23 (0–55)
Shame	1.27 ± 2.27	0 (0–10)
Total	46.60 ± 18.37	47 (0–105)
Stigma Scale		
Discrimination and exclusion	8.41 ± 3.99	7 (5–29)
Labeling	11.08 ± 4.29	10 (6–26)
Psychological health	10.35 ± 3.96	10 (5–25)
Prejudice	14.45 ± 3.85	15 (5-25)
Total	44.0 ± 12.88	43 (22–97)

The Beliefs towards Mental Illness Scale total median and mean scores were found to differ significantly in terms of family structure ($p = 0.035$), the state of choosing the profession willingly ($p < 0.01$), the state of loving the profession ($p = 0.016$) and the state of wanting to provide care to individuals who have mental illness ($p < 0.001$); these scores were found to be higher in individuals who had an over-tolerant family structure, those who did not choose the profession willingly, those who did not love the profession and those who did not want to provide care to individuals with mental illness. It was found that Beliefs towards Mental Illness Scale total median scores did not differ significantly in terms of year of study, gender, the state of considering changing the profession, the state of having received information about mental illnesses and the state of having relative/friend with mental illness ($p > 0.05$) (Table 3).

Table 3. Comparison of students' sociodemographic information and views towards mental illnesses and Beliefs towards Mental Illness Scale median scores (*n* = 235)

Characteristics		Dangerous	Incurability and disturbance in interpersonal relationships	Shame	Total
Year of study	First year	21 (3–38)	24 (2–44)	0 (0–7)	47.5 (5–88)
	Second year	23 (0–40)	22 (0–54)	0 (0–10)	47 (0–104)
	Third year	23 (10–40)	25 (7–55)	0 (0–10)	47.5 (19–105)
	Fourth year	23 (3–35)	22.5 (2–41)	0 (0–7)	46.5 (5–83)
Test statistic		χ^2 = 0.985	χ^2 = 2.707	χ^2 = 2.000	χ^2 = 0.548
p		0.805	0.439	0.572	0.908
Gender	Female	22 (6–40)	22 (4–54)	0 (0–10)	45 (10–104)
	Male	23 (0–40)	24 (0–55)	0 (0–10)	48 (0–105)
Test statistic		*U* = 5,513.5	*U* = 6,257	*U* = 5,598.5	*U* = 5,590.5
p		0.980	0.116	0.855	0.318
Family structure	Democratic family	21 (4–40)ab	21 (4–55)	0 (0–10)	45 (10–105)bc
	Oppressive and authoritarian family	25 (12–38)ab	23.5 (4–51)	0 (0–5)	47 (21–89)abc
	Overprotective family	23 (6–40)ab	30 (4–54)	0 (0–10)	53 (13–104)ac
	Over-tolerant family	26 (13–37)a	28,5 (7–49)	0 (0–10)	52 (20–96)a
	Perfectionist family	14 (3–35)b	24 (2–43)	0 (0–7)	37 (5–83)b
	Indifferent and uninvolved family	18 (0–24)ab	21,5 (0–27)	0 (0–0)	40.5 (0–50)abc
	Unstable family	21 (9–35)ab	22 (10–40)	0 (0–6)	40 (20–81)abc
Test statistic		χ^2 = 19.551	χ^2 = 10.277	χ^2 = 8.785	χ^2 = 13.542
p		**0.003**	0.113	0.186	**0.035**
The state of choosing the profession willingly	Yes	21 (0–40)	22 (0–54)	0 (0–10)	44 (0–104)
	No	24 (12–40)	30 (7–55)	0 (0–10)	53 (20–105)
Test statistic		*U* = 6,214.5	*U* = 6,258	*U* = 5,009	*U* = 6,443.5
p		**0.001**	**0.001**	0.502	**<0.01**
The state of loving the profession	Yes	22 (0–38)a	22 (0–49)a	0 (0–10)	46 (0–96)a
	No	26 (23–40)b	31 (18–55)b	0 (0–10)	55 (44–105)b
	Undecided	22 (9–40)ab	25 (7–54)ab	0 (0–10)	48 (19–104)ab
Test statistic		χ^2 = 7.188	χ^2 = 9.537	χ^2 = 1.582	χ^2 = 8.247
p		**0.027**	**0.008**	0.453	**0.016**
The state of considering changing	Yes	24 (4–40)	27.26 ± 11.49	0 (0–10)	53 (20–105)

the profession					
	No	22 (0–38)	22.63 ± 10.01	0 (0–10)	46.5 (0–96)
Test statistic		*U* = 3,655.5	*t* = 2.685	*U* = 4,086.5	*U* = 3,429
p		0.252	**0.008**	0.905	0.083
Presence of health problem	Yes	20.5 (6–40)	24.50 ± 12.75	0 (0–10)	45 (10–104)
	No	23 (0–40)	23.39 ± 10.16	0 (0–10)	47 (0–105)
Test statistic		*U* = 2,166	*t* = 0.467	*U* = 1,965.5	*U* = 1,965.5
p		**0.008**	0.662	0.379	0.964
The state of receiving information about mental illnesses	Yes	22 (0–40)	22 (0–55)	0 (0–10)	45 (0–105)
	No	23 (3–38)	25 (2–49)	0 (0–10)	49 (5–96)
Test statistic		*U* = 6,892.5	*U* = 7,589	*U* = 7,203	*U* = 7,337
p		0.782	0.103	0.309	0.254
The state of having relative/friend with a mental illness	Yes	22 (6–40)	23.30 ± 9.94	0 (0–10) Mean rank: 105.27	45.95 ± 17.88
	No	23 (0–40)	23.58 ± 10.63	0 (0–10) Mean rank: 125.79	46.99 ± 18.71
Test statistic		*U* = 6,755	*t* = 0.195	*U* = 7,634	*t* = 0.424
p		0.609	0.846	**0.009**	0.672
The state of wanting to provide care to individuals with mental illness	Yes	21(3–40)	21.52 ± 9.70	0 (0–10)	42.85 ± 17.12
	No	24(0–40)	26.92 ± 10.62	1 (0–10)	53.21 ± 18.72
Test statistic		*U* = 8,149	*t* = −3,958,0	*U* = 8,257	*t* =−4,308
p		**<0.001**	**<0.001**	**<0.001**	**<0.001**

The Stigma Scale total median scores were found to differ significantly in terms of year of study (p = 0.013), gender (p = 0.015), mother's profession (p = 0.021), the state of having received information about mental illnesses (p = 0.004) and the state of wanting to provide care to individuals with mental illness (p = 0.004); these scores were found to be higher in first-year students, male students, those whose mothers were housewife, those who were not informed about mental illnesses and those who did not want to provide care to individuals with mental illness. It was found that the Stigma Scale total median scores did not differ significantly in terms of the state of choosing the profession willingly, the state of loving the illness, the state of considering changing the profession and the state of having relative/friend with mental illness (p > 0.05) (Table 4).

Table 4. Comparison of students' sociodemographic characteristics and views on mental diseases with Stigma Scale median scores (n = 235)

Characteristics		Discrimination and exclusion	Labeling	Psychological health	Prejudice	Total
Year of study	First year	7 (6–26)	11 (6–24)a	11 (5–21)a	15 (8–25)	46 (28–75)a
	Second year	6 (6–24)	9 (6–26)b	8 (5–25)b	14 (5–20)	38 (22–90)b
	Third year	7 (5–29)	9 (6–26)ab	10 (5–23)ab	15 (5–20)	43 (22–97)ab
	Fourth year	7 (6–24)	10 (6–24)ab	8.5 (5–22)ab	14 (5–24)	43 (22–86)ab
Test statistic		χ^2 = 7.148	χ^2 = 11.146	χ^2 = 1.046	χ^2 = 1.690	χ^2 = 1.690
p		0.067	**0.011**	**0.005**	0.092	**0.013**
Gender	Female	6 (5–29)	10 (6–25)	10 (5–23)	15 (5–25)	42 (22–97)
	Male	8 (6–26)	13 (6–26)	12 (5–25)	14 (5–23)	45 (22–90)
Test statistic		*U* = 7,101	*U* = 7,073.5	*U* = 6,637	*U* = 5,267.5	*U* = 6,660.5
p		**<0.001**	**0.001**	**0.017**	0.579	**0.015**
Mother's profession	Housewife	7 (5–29)a	12 (6–21)a	15 (5–25)a	15 (5–25)	44 (22–97)a
	Officer	7 (6–21)ab	10.5 (6–18)ab	8 (5–10)ab	16 (7–17)	42 (48–57)ab
	Retired	6 (6–18)ab	8 (6–26)ab	9 (6–17)ab	12 (7–20)	43 (26–66)ab
	Worker	6 (6–24)b	7 (5–25)b	7 (5–25)b	15 (6–23)	35 (24–90)ab
	Farmer	7.5 (6–9)ab	8.5 (8–9)ab	8.5 (8–9)ab	15 (13–17)	41 (35–47)ab
	Deceased	6 (6–6)ab	5 (5–6)ab	5 (5–6)ab	11 (5–14)	29 (22–33)b
Test statistic		χ^2 = 12.236	χ^2 = 15.347	χ^2 = 17.200	χ^2 = 5.749	χ^2 = 13.248
p		**0.032**	**0.009**	**0.004**	0.331	**0.021**
The state of choosing the profession willingly	Yes	7 (5–29)	10 (6–25)	10 (5–23)	14 (5–25)	42 (22–97)
	No	7 (6–24)	10.5 (7–26)	10 (5–25)	15 (7–23)	43.5 (28–90)
Test statistic		*U* = 5.510	*U* = 5.676	*U* = 4,635	*U* = 5,464	*U* = 5,399.5
p		0.067	**0.033**	0.775	0.102	0.138
The state of loving the profession	Yes	6 (5–29)	10 (6–25)	10 (5–23)	14 (5–25)a	42 (22–97)
	No	7 (6–24)	10 (10–26)	10 (5–25)	17 (13–21)b	44 (38–90)
	Undecided	7 (6–21)	11 (7–24)	12 (5–22)	16 (7–25)ab	45 (28–79)
Test statistic		χ^2 = 3.655	χ^2 = 3.572	χ^2 = 5.566	χ^2 = 10.571	χ^2 = 5.940
p		0.161	0.168	0.062	**0.005**	0.051
Do you want to provide care to individuals with mental illness?	Yes	6.5 (5–26)	9 (6–24)	9 (5–21)	14 (5–25)	41 (22–78)
	No	8 (6–29)	11 (6–26)	11 (5–25)	15 (5–25)	46 (22–97)
Test statistic		*U* = 7,654.5	*U* = 7,682.5	*U* = 7,644	*U* = 7,215	*U* = 7,802.5
p		**0.007**	**0.009**	**0.011**	0.092	**0.004**

Table 5 shows the relationship between Beliefs towards Mental Illness Scale and Stigma Scale. A weak positive significant correlation was found between Beliefs towards Mental Illness Scale and Stigma Scale discrimination and exclusion (r = 0.381, p < 0.01), labelling (r = 0.385, p < 0.01), psychological health (r = 0.464, p < 0.01), prejudice (r = 0.459, p < 0.01) factors and total score (r = 0.539, p < 0.01). A weak positive significant correlation was found between Beliefs towards Mental Illness Scale Dangerous subscale and Stigma Scale discrimination and exclusion (r = 0.272, p < 0.01), labelling (r = 0.322, p < 0.01), psychological health (r = 0.363, p < 0.01), prejudice (r = 0.442, p < 0.01) factors and total score (r = 0.453, p < 0.01). A weak positive significant correlation was found between Beliefs towards Mental Illness Scale Incurability and disturbance in interpersonal relationships subscale and Stigma Scale discrimination and exclusion (r = 0.404, p < 0.01), labelling (r = 0.372, p < 0.01), psychological health (r = 0.483, p < 0.01), prejudice (r = 0.433, p < 0.01) factors and total score (r = 0.534, p < 0.01). A weak positive significant correlation was found between Beliefs towards Mental Illness Scale shame subscale and Stigma Scale discrimination and exclusion (r = 0.297, p < 0.01), labelling (r = 0.213, p < 0.01), psychological health (r = 0.237, p < 0.01), prejudice (r = 0.215, p < 0.01) factors and total score (r = 0.304, p < 0.01) (Table 5).

Table 5. The relationship between Beliefs towards Mental Illness Scale and Stigma scale

Scale		Beliefs towards Mental Illness Scale			
		Dangerous	**Incurability and disturbance in interpersonal relationships**	**Shame**	**Total**
Stigma Scale	Discrimination and exclusion	r = 0.272**	r = 0.404**	r = 0.297**	r = 0.381**
	Labeling	r = 0.322**	r = 0.372**	r = 0.213**	r = 0.385**
	Psychological health	r = 0.363**	r = 0.483**	r = 0.237**	r = 0.464**
	Prejudice	r = 0.442**	r = 0.433**	r = 0.215**	r = 0.459**
	Total	r = 0.453**	r = 0.534**	r = 0.304**	r = 0.539**

r: Spearman's correlation coefficient, **significant at p < 0.01.

4. Discussion

The results obtained in this study, which was conducted to find out the factors affecting the beliefs and stigmatisation tendencies of students studying in the nursing department of a university in the Central Black Sea region of Turkey towards mental illnesses, are discussed in line with the related literature.

While the Beliefs towards Mental Illness Scale total score of the students in our study was found as 46.60 ± 18.37, the mean dangerous, incurability and disturbance in interpersonal relationships and shame subscales scores were found as 21.86 ± 7.87, 23.47 ± 10.36 and 1.27 ± 2.27, respectively. High scores from Beliefs towards Mental Illness Scale total score and subscales show negative beliefs towards mental illnesses. In line with the findings in the literature, it was found in our study that students had positive beliefs towards mental illnesses. When studies conducted were examined, in Dal et al.'s study [14], while Beliefs towards Mental Illness Scale total score was found as 48.71 ± 14.91, dangerous, incurability and disturbance in interpersonal relationships and shame subscales scores were found as 21.00 ± 6.07, 25.92 ± 9.96 and 1.80 ± 2.60, respectively. In Eren and Gurhan's study [20], while Beliefs towards Mental Illness Scale total score was found as 50.18 ± 16.76, Dangerous, incurability and disturbance in interpersonal relationships and shame subscales scores were found as 22.25 ± 6.50, 23.88 ± 9.40 and 2.32 ± 2.66, respectively. Nursing students show approaches towards mental illnesses similar to those of the beliefs and attitudes of the society they are living in before they start the profession. However, it is widely known that receiving education about mental illnesses and being in communication with patients affect their attitudes towards these illnesses positively [12], [21]. In this respect, it can be said that the nursing education process has a significant effect on students' developing positive beliefs and attitudes.

In this study, it was found that the Beliefs towards Mental Illness Scale total median and mean scores differed in terms of family structure, the state of choosing the profession willing, the state of loving the profession and the state of wanting to provide care to individuals with mental illness and they were found to be high in individuals with an over-tolerant family structure, in those who did not choose their profession willingly, those who did not like their profession and who did not want to provide care to individuals with mental illness.

When the literature is reviewed, it can be seen that different results were found in studies evaluating the effects of sociodemographic characteristics on beliefs and attitudes towards mental illnesses. In a study by Alpan et al. [22], which examined the attitudes of faculty of health sciences students towards schizophrenia, no statistically significant difference was found between students' attitudes towards schizophrenia scores in terms of age, gender, maternal educational status, paternal educational status and the state of having a psychiatric illness.

While statistically significant difference was found between the beliefs and attitudes of first- and fourth-year nursing students towards mental illnesses in a study conducted by Ozturk et al. [23], first-year students were reported to show more negative attitudes. In a study by Dal et al. [14], it was found that beliefs towards mental illnesses did not differ in terms of gender and the state of having relative/friend with mental illness, while they were found to differ in terms of year of study, place of residence and the state of wanting to work with individuals who had mental illness. In a study by Gunay et al. [21], it was found that beliefs towards mental illnesses differed in terms of gender and the state of having relative/friend with mental illness. When other studies conducted were examined, beliefs towards mental illnesses were reported to differ in terms of year of study [24], [25], gender [20], [26], family type [7], environment the individual was raised in [26], level of income [24] and the state of having relative/friend with mental illness [20], [25], [27]. It can be said that these differences between studies may be resulting from the cultural characteristics of the groups the studies were conducted on, lack of knowledge on mental illnesses, upbringing, accessibility of mental health services in the environment and the measurement instruments used in studies.

In this study, while Stigma Scale total score was found as 44.0 ± 12.88, the mean scores for discrimination and exclusion, labelling, psychological health and prejudice factors were found as 8.41 ± 3.99, 11.08 ± 4.29, 10.35 ± 3.96 and 14.45 ± 3.85, respectively. Considering that the minimum possible score from Stigma Scale is '22' and the maximum possible score is '110', it was found that students had low stigmatisation levels, and they showed the lowest tendency for stigma in discrimination and exclusion factor, while they showed the highest tendency in prejudice factor. In parallel with the results of our study, in Taskin Yilmaz et al.'s study [28], which was conducted to find out the stigmatisation tendencies of nurses, it was found that nurses' stigma tendency levels were lower than the average (49.11 ± 12.00), while they had the highest score in prejudice factor (14.55 ± 3.48) and the lowest score in discrimination and exclusion factor (8.91 ± 3.80).

In this study, it was found that median total scores of the Stigma Scale differed in terms of year of study, gender, the state of having received information about mental illnesses and the state of wanting to provide care to individuals with mental illness; these scores were found to be higher in first-year students, male students, those who were not informed about mental illnesses and those who did not want to provide care to individuals with mental illness. Studies conducted have shown that stigmatisation tendency decreases as the level of information about mental illnesses increases [8]. Negative attitudes and beliefs are factors which increase fear and stigmatisation tendency towards individuals with mental illness. When these factors are considered, the increase in level of information about mental illnesses will contribute to decrease in fear and negative attitudes and therefore stigmatisation tendency [27], [29]. In parallel with the literature, it was found in the present study that stigmatisation tendency scores decreased with the increase in students' years of study and level of information about mental illnesses.

It was also found in this study that the Stigma Scale total median score differed in terms of gender and male students had higher stigmatisation tendency. When studies examining the relationship

between sociodemographic characteristics and stigmatisation were examined, it was found that the effects of gender showed differences in studies. While some studies reported a relationship between gender and stigmatisation [6], [11], [30]., other studies reported that there was no relationship between gender and stigmatisation [30]–[33]. In a study conducted by Sevim and Artan [34] on the tendency for stigmatisation in university students, male students were found to have higher stigmatisation tendency than female students, which is parallel with the results of our study. It is thought that this difference between studies may be due to gender roles and the fact that men are more involved in social life.

In this study, a weak positive significant correlation was found between Beliefs towards Mental Illness Scale total score and Stigma Scale discrimination and exclusion (r=0.381, p<0.01), labelling (r = 0.385, p < 0.01), psychological health (r = 0.464, p < 0.01), prejudice (r = 0.459, p < 0.01) factors and total score (r = 0.539, p < 0.01). Therefore, it was found that as negative beliefs and attitudes towards mental illnesses increased, students' perceptions of discrimination and exclusion increased by creating prejudice against individuals and stigmatisation tendencies towards individuals with psychological problems and the tendency to label individuals in terms of gender, marital status, age, origin and sexual preference also increased.

From the past to the present, many individuals in societies have been exposed to prejudiced and discriminative behaviour due to illnesses they had. Mental illnesses are the most important of these illnesses [29]. Studies examining the beliefs, attitudes and behaviours of societies towards individuals with mental illnesses report that people generally have negative beliefs, attitudes and behaviours towards these individuals and these beliefs result in stigmatisation and discrimination. Prejudiced attitudes or beliefs of people towards individuals with mental illnesses are the main factors in the emergence of stigmatisation and discrimination [8], [25]. Therefore, the results of the present study support the literature.

As a result, stigmatisation is a situation that occurs as a result of the beliefs and attitudes individuals have. Negative beliefs, attitudes and behaviours towards individuals with mental illnesses cause individuals to experience many problems in their social lives while they are making use of the healthcare services [31]. Discriminative and stigmatised attitudes that affect individuals' treatment processes negatively cause reluctance to establish social relationships and social isolation [29]. Therefore, it is extremely important to identify stigmatised beliefs and attitudes which have important effects on individuals' social functionality, self-esteem and quality of life and to conduct studies for these behaviours in fighting stigmatisation.

5. Conclusion

In this study, nursing students' Beliefs towards Mental Illness Scale total score was found as 46.60 ± 18.37, while their Stigma Scale total score was found as 44.0 ± 12.88. It was found that Beliefs towards Mental Illness Scale and Stigma Scale total median scores differed in terms of some sociodemographic characteristics of students and their thoughts about mental illnesses. In this study, a weak positive significant correlation was found between Beliefs towards Mental Illness Scale total score and Stigma Scale discrimination and exclusion (r = 0.381, p < 0.01), labelling (r = 0.385, p < 0.01), psychological health (r = 0.464, p < 0.01), prejudice (r = 0.459, p < 0.01) factors scores and total score (r = 0.539, p < 0.01).

Considering that nursing students who will work with individuals, family and the society, provide health education and counselling services, come from different segments of the society with certain attitudes and prejudices and that mental, social and cultural factors are important, it is important to determine the attitudes of students first of all. Identifying the attitudes and stigmatisation tendencies of nursing students is necessary for planning education programmes in an attitude-improving manner. In the next phase, various activities can be held within the scope of educational activities in order to increase the knowledge of students who will be healthcare professionals of the future about mental

illnesses and to turn their attitudes towards these individuals into positive. In addition to these, it can be recommended to create theoretical and applied course contents to provide quality care to individuals with mental illnesses and to teach them effective communication methods and to plan clinical practice areas where students can interact with individuals who have mental illness.

Conflicts of interest

The authors have no conflicts of interests to disclose.

References

[1] E. B. Koyu, Y. Karaagac, and S. Micoogullari, "Saglik bilimleri ogrencilerinde obezite on yargisi ve iliSkili etmenler," *Turkiye Diyabet ve Obezite Dergisi*, vol. 4, no. 3, pp. 260--269, Dec. 2020, DOI: 10.25048/tudod.790209.

[2] P. E. Bana, "Evaluation of negative situations and social stigma perception experienced by healthcare professionals in the COVID-19 epidemic process," *Pressacademia*, vol. 7, no. 4, pp. 288--298, Dec. 2020, DOI: 10.17261/Pressacademia.2020.1325.

[3] H. ArslantaS *et al.*, "Beliefs of nursing students about mental illnesses and social distance: The effects of theoretical and practical psychiatric nursing education," in *Proc. Yeni Symp.*, 2019, vol. 57, no. 1, pp. 2--9, DOI: 10.5455/NYS.20190214084140.

[4] O. Cam and D. Cuhadar, "Ruhsal hastaliga sahip bireylerde damgalama sureci ve icselleStirilmiS damgalama," *Psikiyatri HemSireligi Dergisi*, vol. 2, no. 3, pp. 136--140, 2011. [Online]. Available: https://jag.journalagent.com/phd/pdfs/PHD_2_3_136_140.pdf

[5] O. Asan, "Ruhsal hastaliklar ve damgalama; toplumda, medyada, saglik caliSanlarda ve her yerde," *Sakarya Tip Dergisi*, vol. 9, no. 2, pp. 199--205, 2019. [Online]. Available: https://dergipark.org.tr/en/download/article-file/745903

[6] A. Bilge and O. Cam, "Ruhsal hastaliga yonelik damgalama ile mucadele," *TAF Preventive Med. Bull.*, vol. 9, no. 1, pp. 71--78, 2010. [Online]. Available: https://www.korhek.org

[7] H. S. Tarim and M. Yilmaz, "Saglik alaninda ogrenim goren universite ogrencilerinin ruhsal bozukluklara yonelik inanclarinin sosyo-demografik degiSkenler acisindan incelenmesi," *Mersin Universitesi Saglik Bilimleri Dergisi*, vol. 11, no. 2, pp. 134--146, 2018.

[8] O. Cam and A. Bilge, "Turkiye'de ruhsal hastaliga/hastaya yonelik inanc, tutum ve damgalama sureci: Sistematik derleme," *J. Psychiatric Nursing*, vol. 4, no. 2, pp. 91--101, 2013, DOI: 10.5505/phd.2013.92300.

[9] B. Arkan, K. Bademli, and Z. C. Duman, "Attitudes of health professionals towards mental disorders: Studies in Turkey during the last decade," *Psikiyatride Guncel Yaklasimlar*, vol. 3, no. 2, p. 214, 2011. [Online]. Available: https://link.gale.com/apps/doc/A558921396/AONE?

[10] Y. Cekic and R. Yuksel, "HemSirelik ogrencilerinin ruhsal hastalik kavramina iliSkin metaforlari: Kalitatif bir caliSma," *Psikiyatri HemSireligi Dergisi*, vol. 12, no. 2, pp. 85--92, 2021, DOI: 10.14744/phd.2020.79803.

[11] S. Unal *et al.*, "Universite ogrencilerinin ruhsal hastaliga yonelik inanclari," *DuSunen Adam Psikiyatri ve Norolojik Bilimler Dergisi*, vol. 23, pp. 145--150, Sep. 2010.

[12] A. K. Bekhet *et al.*, "Nursing students' perception of the stigma of mental illness," *SM J. Nursing*, vol. 3, no. 2, p. 1013, 2017.

[13] B. Happell and C. J. Gaskin, "The attitudes of undergraduate nursing students towards mental health nursing: A systematic review," *J. Clin. Nursing*, vol. 22, nos. 1--2, pp. 148--158, Jan. 2013.

[14] U. Dal *et al.*, "HemSirelik ogrencilerinin ruhsal hastaliklara yonelik inanclari," *HemSirelik Bilimi Dergisi*, vol. 1, no. 2, pp. 14--18, 2018.

[15] Y. Ozturk, "Pap smear testi yaptirmamiS kadinlarin bu teste yonelik farkindaliklarinin ve testi yaptirmama nedenlerinin degerlendirilmesi," M.S. thesis, EskiSehir Osmangazi Universitesi Saglik Bilimleri Enstitusu, EskiSehir, Turkey, 2017.

[16] E. Yildiz, "Kronik psikiyatri hastalarina bakim verenlerin bakim yukleri ve baS etme duzeylerinin belirlenmesi," M.S. thesis, Inonu Universitesi Saglik Bilimleri Enstitusu, Malatya, Turkey, 2016.

[17] M. Hirai and G. A. Clum, "Development, reliability, and validity of the beliefs toward mental illness scale," *J. Psychopathol. Behav. Assessment*, vol. 22, no. 3, pp. 221--236, 2000.

[18] A. Bilge and O. Cam, "Ruhsal hastaliga yonelik inanclar olcegi'nin gecerliligi ve guvenilirligi/validity and reliability of beliefs towards mental illness scale," *Anadolu Psikiyatri Dergisi*, vol. 9, no. 2, p. 91, 2008.

[19] E. Yaman and H. Gungor, "Damgalama (stigma) olceginin geliStirilmesi, gecerlilik ve guvenirlik caliSmasi," *Degerler Egitimi Dergisi*, vol. 11, no. 25, pp. 251--270, 2013.

[20] H. K. Eren and N. Gurhan, "Determination of the relationship between the beliefs of nursing students toward mental illnesses and their empathic tendency levels," *Perspectives Psychiatric Care*, vol. 57, no. 3, pp. 1034--1040, 2021, DOI: 10.1111/ppc.12654.

[21] S. Gunay *et al.*, "Determination of the mental disorder beliefs of students in a nursing faculty," *J. Psychiatric Nursing*, vol. 7, no. 3, pp. 129--134, 2016, DOI: 10.5505/phd.2016.43534.

[22] A. Alpan et al., "Saglik bilimleri fakultesi ogrencilerinin Sizofreni hastaligina karSi tutumlari," *Kirikkale Universitesi Tip Fakultesi Dergisi*, vol. 20, no. 1, pp. 8--17, 2018, DOI: 10.24938/kutfd.332740.

[23] A. Ozturk, H. K. Softa, and G. K. UlaS, "Kastamonu Universitesi'nde ogrenim goren hemSirelik ogrencilerinin ruhsal hastaliklara karSi inanclari ve psikiyatri hemSireligi dersinin etkisi," *UHPPD*, vol. 4, pp. 147--156, 2015. [Online]. Available: https://acikerisim.bartin.edu.tr/bitstream/handle/11772/1215/kastamonu-universitesinde-ogrenim-goren-hemsirelik-ogrencilerinin-ruhsal-hastaliklara-karsi-inanclari-ve-psikiyatri-hemsireligi-dersinin-etkisi201510.pdf?sequence=1&isAllowed=y

[24] S. Chang *et al.*, "Stigma towards mental illness among medical and nursing students in Singapore: A cross-sectional study," *BMJ Open*, vol. 7, no. 12, pp. 1--11, 2017, DOI: 10.1136/bmjopen-2017-018099.

[25] G. Sahin et al., "Bir hemSirelik bolumundeki ogrencilerin ruhsal bozuklugu olan bireylere karSi tutumlari ve iliSkili faktorler," *Acibadem Universitesi Saglik Bilimleri Dergisi*, vol. 10, no. 2, pp. 218--224, 2019, DOI: 10.31067/0.2019.144.

[26] A. Tumer, S. H. Ors, and H. Akpinar, "YetiSkinlerin ruhsal hastaliga/hastalara yonelik tutumlari," *YaSam Becerileri Psikoloji Dergisi*, vol. 3, no. 6, pp. 139--147, 2019, DOI: 10.31461/ybpd.590704.

[27] M. Evli, "Ruhsal hastaliklara yonelik inanc ve tutum iliSkisinde psikiyatri hemSireligi egitiminin etkisi," *Ordu Universitesi HemSirelik CaliSmalari Dergisi*, vol. 4, no. 1, pp. 64--74, 2021, DOI: 10.38108/ouhcd.823895.

[28] F. T. Yilmaz, E. Yildiz, and B. E. Cevik, "HemSirelerin iS stresi ile damgalama egilimleri arasindaki iliSki," *Pearson J. Social Sci. Hum.*, vol. 6, no. 12, pp. 190--203, 2021, DOI: 10.46872/pj.256.

[29] S. Bekiroglu, "Ruhsal hastaliga sahip bireylere yonelik damgalama: Etkileyen faktorlere ve bireyler uzerindeki etkilerine dair kavramsal bir caliSma," *OPUS Uluslararasi Toplum AraStirmalari Dergisi*, vol. 17, no. 33, pp. 595--618, 2021, DOI: 10.26466/opus.825384.

[30] S. Bekiroglu and F. Demiroz, "Toplum ruh sagligi merkezlerinden hizmet alan agir ruhsal hastaliga sahip bireylerin algiladiklari sosyal damgalanmanin incelenmesi," *Turkiye Sosyal AraStirmalar Dergisi*, vol. 24, no. 1, pp. 41--52, 2020, DOI: 10.33417/tsh.723023.

[31] G. Gerlinger *et al.*, "Personal stigma in schizophrenia spectrum disorders: A systematic review of prevalence rates, correlates, impact and interventions," *World Psychiatry*, vol. 12, no. 2, pp. 155--164, Jun. 2013, DOI: 10.1002/wps.20040.

[32] P. Switaj *et al.*, "Exploring factors associated with the psychosocial impact of stigma among people with schizophrenia or affective disorders," *Community Mental Health J.*, vol. 52, no. 3, pp. 370--378, Apr. 2016, doi: 10.1007/s10597-014-9800-1.

[33] I. Sibitz *et al.*, "The impact of the social network, stigma and empowerment on the quality of life in patients with schizophrenia," *Eur. Psychiatry*, vol. 26, no. 1, pp. 28--33, Jan. 2011, DOI: 10.1016/j.eurpsy.2010.08.010.

[34] K. Sevim and T. Artan, "Universite ogrencilerinde benlik saygisi ve damgalama egilimi arasindaki iliSki," *Pamukkale Universitesi Sosyal Bilimler Enstitusu Dergisi*, vol. 35, pp. 143--156, Apr. 2019, DOI: 10.30794/pausbed.447166.