journal homepage: http://kont.zsf.jcu.cz
DOI: 10.32725/kont.2026.002

KONTAKT / Journal of nursing and social sciences related to health and illness

Original research article

Nursing students' beliefs and attitudes towards mental illness: stigmatization, discrimination, and professional influences

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Abstract

Background: It is important that individuals with mental illness are not stigmatized by health professionals.
Purpose: This descriptive correlational study aimed to determine the relationship between nursing students' beliefs about mental illness and their attitudes toward people with mental health problems.
Methods: The study was conducted with 200 nursing students using the Descriptive Characteristics Form, Beliefs about Mental Illness Scale (BMI), and Community Attitudes Towards Mentally Ill Individuals Scale (CAMI). Data were analyzed using descriptive statistics, *t*-test, Anova, and pearson correlation analysis.
Results: The mean BMI total score was 51.93 ± 17.38, and the mean CAMI total score was 58.85 ± 8.44. A moderate positive correlation was found between the two scales ($r = 0.39$, $p < 0.001$).
Discussion: Nursing students demonstrated moderately negative beliefs and attitudes towards individuals with mental illness. Increasing the duration and quality of psychiatric clinical placements may improve students' attitudes and communication skills with these patients.

Keywords: Attitudes; Beliefs; Mental illness; Nursing students; Stigmatization

Introduction

Mental illness stigma represents prejudiced and discriminatory attitudes towards individuals living with mental disorders, such as mood disorders and schizophrenia. It refers to the set of negative beliefs and behaviors that lead to fear, exclusion, and discrimination (Griffiths et al., 2014; Hogan, 2003).

Stigma associated with mental illness negatively affects access to quality care and contributes to poor health outcomes (Fokuo et al., 2017; Happell et al., 2015).

Globally, approximately 970 million people about one-eighth of the world's population were living with a mental disorder in 2019, with anxiety and depression being the most prevalent. The COVID-19 pandemic has intensified this burden, increasing global anxiety and depression rates by 26% and 28%, respectively (WHO, 2022).

In the United Kingdom, 86.7% of individuals receiving mental health services have experienced stigma, and 74% conceal their condition due to fear of discrimination (Corker et al., 2016). Stigmatization is not limited to the general public; it is also observed among healthcare professionals, including nurses and nursing students, influencing the quality of patient care and professional attitudes (Demiray et al., 2018). Nurses' beliefs and attitudes toward people with mental illness directly shape their therapeutic relationships and influence patient outcomes. Nursing students with negative beliefs and stigmatizing attitudes may experience fear, discomfort, and avoidance during clinical practice, reducing their willingness to pursue mental health nursing (Garvey et al., 2021; Kameg et al., 2021). Previous studies report that nursing students often exhibit moderate to high levels of stigma toward patients with mental disorders (Fernandes et al., 2022; Petkari et al., 2018; Valentim et al., 2023). Negative media portrayals and cultural stereotypes reinforce these attitudes, portraying mental illness as dangerous and untreatable (Li et al., 2022).

Understanding the beliefs and attitudes of nursing students toward individuals with mental illness is essential to improving psychiatric nursing education and reducing stigma (Çalık Koyak and Arslantaş, 2020; Malas, 2019).

Therefore, this study aimed to examine the relationship between nursing students' beliefs about mental illness and their attitudes toward individuals with mental health problems.

It was hypothesized that more negative beliefs about mental illness would be associated with more stigmatizing attitudes toward individuals with mental illness.

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http://doi.org/10.32725/kont.2026.002

Submitted: 2025-09-05 • Accepted: 2026-01-12 • Prepublished online: 2026-01-12
KONTAKT 28/1: 31–37 • EISSN 1804-7122 • ISSN 1212-4117

Materials and methods

Type of research
The research employs a descriptive correlational study model.

Place and time of the research
The study was conducted at a university in the southeastern region of Turkey between March and June 2024.

Population and sample of the study
The study population consisted of 380 students enrolled in the Faculty of Health Sciences, Department of Nursing. The sample size was calculated using the Cochran formula for finite populations with a 95% confidence level (Z = 1.96), 5% margin of error (d = 0.05), and variance assumption of $p = 0.5$ and q = 0.5, which yields the maximum sample size. Based on this formula, the minimum required sample size for a population of 380 students was calculated as 192 participants. To account for possible non-response or incomplete data, a total of 200 students were recruited for the study. A convenience sampling method was used to select participants. All students enrolled in the nursing program ($N = 380$) were invited to participate. Students who were accessible during the data collection period and voluntarily agreed to take part were included in the study. This approach was considered appropriate given the descriptive and cross-sectional design of the research.

Descriptive characteristics form
This form, created by the researcher, consists of seven questions. It includes the following items: age, gender, grade level, mother's education level, father's education level, family history of psychiatric illness, and perception of income.

Beliefs about mental illness scale (BMI)
The scale was developed by Hirai and Clum in the USA in 2000. The objective of the scale is to ascertain the positive and negative beliefs held by individuals with diverse cultural characteristics regarding mental illness. The scale is a 6-point Likert-type scale comprising 24 items. In the Turkish validity and reliability study, items 16, 17, and 23 were excluded, and 21 items were deemed to constitute a valid and reliable scale for the Turkish population (Bilge and Çam, 2008). In the validity and reliability study conducted by Bilge and Çam, the total Cronbach alpha coefficient was found to be 0.82. The scale can be interpreted in terms of both the total score and the scores obtained for the subscales. A high total score and high scores on the subscales indicate negative beliefs about mental illness. The scale is comprised of three subscales. The subscale pertaining to dangerousness consists of eight items (1, 2, 3, 4, 5, 6, 7, 13) and pertains to the belief that mental illnesses and patients are dangerous. The score that can be obtained from this subscale ranges from 0 to 40.

The subscale pertaining to feelings of helplessness and deterioration in interpersonal relationships is comprised of 11 items (8, 9, 10, 11, 14, 16, 17, 18, 19, 20, 21), which pertain to the impact of mental illnesses on interpersonal relationships and related feelings of helplessness. It indicates a sense of being impeded and experiencing helplessness in interpersonal relationships with individuals who are mentally ill. The range of possible scores on this subscale is 0–55. The shame subscale, comprising two items (12, 15), conveys the notion that mental illness is a source of shame. The score obtained from this subscale ranges from 0 to 10. The total Cronbach alpha coefficient for the study was calculated to be 0.89.

Community attitudes towards mentally ill individuals scale (CAMI)
The community attitudes toward the mentally ill were first delineated by Taylor and Dear in 1979 (Taylor and Dear, 1981). The validity and reliability of the scale was investigated in a Turkish context by Bağ and Ekinci (2006). The Turkish version of the Community Attitudes Towards Individuals with Mental Problems Scale comprises 21 items. The statistical analysis yielded three factors, collectively explaining 41% of the total variance. These factors were designated as Factor 1 (Good Intention), Factor 2 (Community Mental Health Ideology), and Factor 3 (Fear/Exclusion).

Good intention subscale
This subscale reflects a sympathetic and paternalistic view that is based on humanistic and religious principles. This perspective underscores the responsibility of society to provide support and understanding to individuals with mental health challenges and to cultivate a sense of empathy and shared experience among the general public. The subscale is comprised of a total of nine items, with items 2, 6, 11, 18, and 20 scored directly and items 4, 9, 13, and 16 scored inversely. A higher total score on the subscale is indicative of a more positive attitude.

Community mental health ideology subscale
This subscale is concerned with the assessment of mental health in a community setting, with a view to facilitating the delivery of appropriate therapeutic interventions. This subscale pertains to the continuation of treatment and care for individuals with mental health issues within the community. The subscale is comprised of a total of 10 items, with items 3, 7, 12, 15, and 19 being scored directly, and items 5, 10, 14, 17, and 21 being scored inversely. A higher total score on the subscale is indicative of a more positive attitude.

Fear/Exclusion subscale
This subscale posits that individuals with mental illness should be removed from society, and that these individuals should be feared and excluded. The subscale comprises two items (Items 1 and 8). Item 1 is scored in the original direction, while Item 8 is reverse scored. A higher total score on the subscale indicates a more negative attitude. In the validity and reliability study conducted in Turkey, the Cronbach's alpha coefficients for the scale were 0.72 overall, 0.78 for the Good Intention subscale, 0.76 for the Community Mental Health Ideologies subscale, and 0.75 for the Fear/Exclusion subscale. The overall internal consistency of the scale, assessed using Cronbach's alpha, was 0.67 in this study.

Inclusion criteria
Inclusion criteria included having no health problems that prevented communication. Exclusion criteria included the presence of physical or mental health problems that prevented communication.

Data collection
The researcher conducted in-person interviews with the subjects to gather the data. The forms took individuals an average of ten minutes to complete.

Data evaluation

Statistical Package for Social Science (SPSS) 27 package program was used to evaluate the data. Number, percentages, means, standard deviations, chi-square, *t*-tests, ANOVAs, and correlation tests were used to calculate the relationship between scale total score averages.

Ethical aspects of the study

Written approval was obtained from the Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee (dated 13.02.2024 and numbered 2024/2-17). Approval was also obtained from the institution where the study was conducted. Participants gave their consent for their data to be used in the study.

Patient and public involvement

Participants were not involved in the design or conduct of the study, nor in the analysis or interpretation of the data. The study involved data collection only.

Results

Of the students who participated in the study, 69.0% were 21 years of age or older, 66.0% were female, 36.0% were 2nd grade students, 31.0% had illiterate mothers, 36.0% were secondary school graduates, 53.5% had income equivalent to expenses, and 85.0% had no family history of psychiatric illness (Table 1).

A statistically significant difference was found between the total score of the CAMI and age (t = –3.029, p = 0.00). The mean total score of students aged 21 years and older was higher. There was a statistically significant difference between gender and BMI (t = –2.638, p = 0.00). The mean total score of male students was higher. There was a statistically significant difference between the grade of students and BMI. 4th grade students had a higher mean score. There was a statistically significant relationship between income status and CAMI. The mean score of those whose income was equal to their expenses was higher (Table 1).

The mean total score of the beliefs about mental illness scale was 51.93 ± 17.38. The scores obtained from the sub-dimensions of this scale were as follows: the mean total score of the dangerousness sub-dimension was 22.86 ± 7.22, which is slightly above the medium level. The mean total score of the helplessness and deterioration in interpersonal relationships sub-scale was 26.57 ± 10.51, which is at the medium level. The mean total score of the shame sub-scale was 2.49 ± 2.69, which is at the low level (Table 2).

The mean total score of the scale of community attitudes towards mentallly ill individuals was calculated as 58.85 ± 8.44. The scores obtained from the sub-dimensions of this scale were calculated as follows: the mean total score of the good intentions subscale was 24.73 ± 4.08, which is at the moderate level. The mean total score of the community mental health ideology subscale was 29.01 ± 4.38, which is above the moderate level. The mean total score of the fear/exclusion subscale was 5.11 ± 1.83, which is close to the moderate level (Table 2). As shown in Table 2, the mean score of the Dangerousness subscale (22.86 ± 7.22) was above the moderate level, indicating that students still perceive individuals with mental illness as somewhat risky.

The Helplessness/Impairment subscale score (26.57 ± 10.51) suggests that students view mental illness as a chronic condition that negatively affects functionality.

Table 1. Sociodemographic characteristics of the students participating in the study, and comparison of the mean total scale scores and sociodemographic characteristics

Variables	*n*	%	BMI Mean ± SD	CAMI Mean ± SD
Age				
17–20	62	31.0	49.90 ± 15.88	56.20 ± 8.47
21 and above	138	69.0	52.84 ± 18.00	60.04 ± 8.18
Test value			t = –1.106	t = –3.029
Significance			p = 0.27	**p = 0.00**
Gender				
Female	132	66.0	49.63 ± 16.32	59.01 ± 8.18
Male	68	34.0	56.38 ± 18.61	58.54 ± 8.99
Test value			t = –2.638	t = 0.373
Significance			**p = 0.00**	p = 0.71
Grade				
1.	36	18.0	50.19 ± 12.35	58.41 ± 6.67
2.	72	36.0	48.34 ± 18.02	57.91 ± 10.06
3.	47	23.5	51.61 ± 18.50	58.61 ± 7.36
4.	45	22.5	59.37 ± 16.83	60.95 ± 7.81
Test value			F = 4.076	F = 1.273
Significance			**p = 0.00**	p = 0.28
Mother's education				
Illiterate	62	31.0	51.25 ± 19.20	58.59 ± 9.52
Literate	33	16.5	51.36 ± 15.47	59.45 ± 5.93
Primary	46	23.0	52.73 ± 13.94	59.56 ± 7.33
Secondary	37	18.5	54.02 ± 21.02	57.94 ± 8.84
Undergraduate and above	22	11.0	49.45 ± 15.40	58.72 ± 10.29
Test value			F = 0.299	F = 0.242
Significance			p = 0.87	p = 0.91
Father's education				
Illiterate	11	5.5	45.63 ± 20.67	56.81 ± 15.99
Literate	19	9.5	49.78 ± 15.09	58.52 ± 6.75
Primary	63	31.5	52.87 ± 18.15	57.79 ± 6.86
Secondary	72	36.0	54.48 ± 15.81	59.08 ± 8.19
Undergraduate and above	35	17.5	48.11 ± 18.82	61.11 ± 9.12
Test value			F = 1.297	F = 1.056
Significance			p = 0.27	p = 0.38
Income status				
Income less than expenditure	79	39.5	51.55 ± 17.63	57.16 ± 8.36
Income matches expenditure	107	53.5	53.17 ± 16.93	60.34 ± 7.85
Income more than expenditure	14	7.0	44.50 ± 18.71	57.00 ± 11.40
Test value			F = 1.581	F = 3.682
Significance			p = 0.20	**p = 0.02**
Family history of psychiatric illness				
Yes	30	15.0	55.70 ± 18.54	58.36 ± 11.05
No	170	85.0	51.26 ± 17.14	58.94 ± 7.93
Test value			t = 1.290	t = –0.343
Significance			p = 0.19	p = 0.73

The low Shame score (2.49 ± 2.69) shows that mental illness is not perceived as a personal weakness or a source of embarrassment.

Regarding the CAMI subscales, Goodwill (24.73 ± 4.08) and Community Mental Health Ideology (29.01 ± 4.38) were at moderate levels, while Fear/Exclusion (5.11 ± 1.83) was slightly below moderate, indicating that students display a benevolent but not yet fully accepting attitude toward individuals with mental illness.

These findings suggest that while nursing students demonstrate emerging awareness and empathy, some emotional biases particularly fear-based attitudes still persist.

Table 2. The mean total scores of BMI and CAMI and the mean total scores of subscales

Scales and subscales	Min–Max Score	Avg. ± SS
Dangerousness subscale	0–40	22.86 ± 7.22
Helplessness and impairment in interpersonal relations subscale	0–55	6.57 ± 10.51
Shame subscale	0–10	2.49 ± 2.69
Beliefs about mental illness scale total	0–100	51.93 ± 17.38
Good intention subscale	9–36	24.73 ± 4.08
Community mental health ideology subscale	10–40	29.01 ± 4.38
Fear/exclusion subscale	1–15	5.11 ± 1.83
Community attitudes towards mentally ill individuals scale total	21–84	58.85 ± 8.44

When the relationship between the scales and subscales of the study is evaluated, it is seen that there is a statistically significant relationship between the BMI and the good intentions subscale, the community mental health ideology subscale, and the fear/exclusion subscales (r = 0.395, r = 0.273, r = 0.296, p = 0.000) (Table 3).

There is a significant correlation between the CAMI and the dangerousness subscale, helplessness and deterioration in interpersonal relationships subscale (r = 0.371, r = 0.377, p = 0.000). There was no significant relationship between the CAMI and shame subscale (r = 0.094, p = 0.186) (Table 3).

A moderate positive correlation was found between total BMI and CAMI scores (r = 0.397, p = 0.000). According to Cohen's (1988) classification, this represents a medium effect size, suggesting a meaningful relationship between students' beliefs and attitudes.

In other words, the more negative the beliefs, the more stigmatizing the attitudes toward individuals with mental illness.

The correlation between the Dangerousness and Goodwill subscales (r = 0.028, p = 0.000) also showed a medium effect, indicating that perceptions of risk may influence students' willingness to help.

The weak correlation between Shame and Fear/Exclusion (r = 0.155, p = 0.029) suggests that shame plays a secondary role in stigma formation.

Overall, the findings indicate that cognitive beliefs exert a moderate but significant influence on nursing students' behavioral tendencies toward individuals with mental illness (Table 3).

Table 3. The mean total scores of BMI and CAMI and the mean total scores of their subscales

Scales and subscales		BMI Total	Dangerousness subscale	Helplessness and deterioration in interpersonal relationships subscale	Shame subscale
CAMI Total	*r*	0.397**	0.371**	0.377**	0.094
	p	**0.000***	**0.000***	**0.000***	**0.186**
Goodwill subscale	*r*	0.395**	0.283**	0.399**	0.233**
	p	**0.000***	**0.000***	**0.000***	**0.001***
Community mental health ideology subscale	*r*	0.273**	0.350**	0.236**	–0.101
	p	**0.000***	**0.000***	**0.001***	**0.157**
Fear/exclusion subscale	*r*	0.296**	0.244**	0.282**	0.155*
	p	**0.000***	**0.000***	**0.000***	**0.029***

Note: ** Pearson correlation; * $P < 0.005$

Discussion

In this section, the findings of the present study are discussed in relation to previous research. A significant relationship was found between students' grade and gender and the total score on Beliefs About Mental Illness Scale. Male students and students in their fourth year were found to have higher scores. As the psychiatry course is taught in the fourth year, it can be argued that having clinical experience and encountering psychiatric patients may have led students to show more negative beliefs compared to students in other years. Rayan's (2024) study also indicated that male students had higher stigma scores than female students, and that gender could be an effective factor in shaping attitudes towards mental illness. This finding is also consistent with studies which show that women generally display less stigmatizing attitudes than men (Abdelmonaem et al., 2024; Ruiz et al., 2022). Foster et al. (2019) reported that undergraduate nursing students had negative and stigmatizing attitudes towards individuals with mental illness and were insufficiently prepared for mental health clinical placements. Similarly, Itzhaki et al. (2017) also found that nursing students held negative attitudes towards individuals with mental health issues.

In our study, the scores for the goodwill subscale and the community mental health ideology subscale were found to be moderate. This result indicates that nursing students have a certain awareness that individuals with mental illness should be accepted and supported in society; however, this awareness has not fully transformed into a positive attitude. It can be said that students had a well-meaning and helpful attitude in general, but they were not entirely free from the stigmatizing attitudes prevalent in society.

The fear/exclusion subscale score was close to moderate, indicating that fear, misconceptions, or lack of knowledge may be at the root of negative attitudes towards mental illness.

The limited number of encounters with individuals who have mental illness or limited clinical experience may lead students to perceive these individuals as 'dangerous' or 'unpredictable'. Providing students with case-based and simulation-supported experiential learning opportunities in a safe environment may be an effective approach to reducing stigmatizing beliefs.

The findings of our study are consistent with the literature. A study examining nursing students' attitudes towards schizophrenia reported that students who were informed about psychiatric patients exhibited more positive attitudes (Kayahan, 2009). Çıtak et al. (2010) also stated that nursing students generally had positive attitudes towards mental illness. Alexander et al. (2023) found that, apart from perceptions of danger, most students displayed accepting attitudes towards individuals with mental illness. A study conducted in China found that nursing students had moderate levels of stigma regarding mental health and emphasized that this situation could be improved (Shi et al., 2024). Hoekstra et al. (2010) reported that nursing students' unrealistic and stereotypical perceptions of mental health care stemmed from schools' failure to provide career guidance and comprehensive information in the field of mental health.

A meta-analysis conducted among young people in India found that young people have insufficient knowledge about mental disorders, show stigmatizing attitudes towards these individuals, and label them as 'dangerous' (Gaiha et al., 2020). Similarly, it was stated that nursing students who had not received adequate training in caring for individuals with mental illness often experienced fear, uncertainty, and anxiety in clinical practice (Samari et al., 2019).

Unlike our study, Alexander et al. (2023) reported that more than half of nursing students had a family member or friend who had experienced mental illness, and that this situation could contribute to the development of more accepting attitudes towards mental illness among students. This finding suggests that personal experiences may lay the ground for students to develop a more empathetic and humane approach.

The findings of our study indicate that nursing students hold some significantly negative beliefs about individuals with mental illness, and their overall attitudes are moderately negative. This suggests that students tend to view mental illness as persistent, difficult to treat, or as a condition that hinders social integration. The results show that nursing students are unable to completely distance themselves from stigmatizing beliefs. Therefore, it is important to strengthen psychiatric nursing practices, case-based learning, and awareness-raising activities in nursing education. Field practices conducted at community mental health centres will also contribute to students' developing empathetic and inclusive approaches towards individuals with mental illness.

Moxham et al. (2024) also reported that nursing students in different countries showed negative attitudes and beliefs towards individuals with mental illness. Although healthcare professionals are expected to be the most empathetic group and to take the lead in spreading mental health awareness in society (Caron and O'Connor, 2018), it has been reported that negative and stigmatizing attitudes are still observed among these professionals (Manescu et al., 2023). The emphasis on technical and professional knowledge in nursing education curricula relegates mental health education to the background and limits the development of students' mental health awareness. This situation can lead to nursing students having insufficient knowledge on mental health issues and reinforce stigmatising attitudes (Hu et al., 2022).

To reduce the impact of stigma and negative beliefs in nursing education, educators must provide students with opportunities to interact with individuals experiencing mental health issues in a controlled and safe environment and incorporate experiential learning methods into the curriculum (San et al., 2023). Nursing education programs must be restructured to support the holistic development of knowledge, skills, and attitudes in both theoretical and clinical courses. This approach is of great importance in reducing stigmatizing attitudes and in promoting the acceptance, social participation, and empathetic approaches towards individuals with mental illness.

Our study found a positive and significant relationship between the Beliefs About Mental Illness Scale and the Community Attitudes scale. In other words, as the BMI total score increases, the CAMI score also increases. Similarly, Murat et al. (2020) found that students' levels of stigma increased as their BMI scores increased, while Ünal and Uyaroğlu (2022) noted that students with high BMI scores also had high levels of negative attitudes (e.g., social distancing).

Societal attitudes towards mental health are known to influence the development of a mental health stigma among nursing students. The frequent negative portrayal of mental illnesses in the media contributes to deepening societal misconceptions and fears about these illnesses; mental disorders are often depicted as dangerous or untreatable (Li et al., 2022). In nursing education, psychiatry courses are mostly taught in the final year. Awareness education should be integrated into the early stages of nursing education so that positive attitudes towards mental health can be developed.

Conclusion

The study showed that nursing students hold negative beliefs and moderately negative attitudes towards individuals with mental illness. These findings emphasize the need for greater significance to be placed on mental health education in the nursing curriculum. The integration of early and continuing awareness education, experiential learning opportunities, and clinical practice in psychiatry and community mental health settings can help reduce stigma and foster empathy. Strengthening nursing education with holistic approaches that develop knowledge, skills, and attitudes will contribute to the acceptance and social participation of individuals with mental illness. Future research should focus on longitudinal and intervention-based designs to evaluate the long-term effects of such educational strategies on reducing stigma among nursing students.

Limitations

The present study was limited to nursing students attending a single institution. Therefore, the generalizability of the findings to different educational settings or cultural contexts may be limited. For future research, longitudinal or experimental designs using larger and more diverse samples are recommended to assess changes in stigma levels and the effectiveness of educational interventions over time.

Ethics statement

Written approval was obtained from the Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee (dated 13.02.2024 and numbered 2024/2-17). Approval was also obtained from the institution where the study was conducted. Participants gave their consent for their data to be used in the study.

Author contributions

Behiye Dilmen Bayar: conceptualization, methodology, data curation, formal analysis, investigation, project administration, supervision, software, resources, validation, visualization, writing – original draft, writing – review and editing. *İbrahim Dağ:* conceptualization, methodology, project administration, supervision, validation, writing – original draft, writing – review and editing.

Conflict of interest

The authors have no conflict of interest to declare.

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