Original Article

Metaphors of nursing students on the perception of mental illness: A qualitative study

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Abstract

Objectives: The aim of this study is to examine the metaphors nursing students use for the concept of "Mental Illness" to identify their perceptions on this subject.

Methods: The research was carried using a phenomenological design, a qualitative research technique. The study group of the research included a total of 496 nursing students studying at Ankara University Faculty of Health Sciences Nursing Department in the 2017-2018 academic year. A form titled, "Metaphorical Perceptions Data Collection Form", which was prepared by the researchers in line with the literature, was used for data collection. On this form, every participating student was asked to fill in the gaps in the following sentence: "Mental illness is like.................... because.................... ". Analysis of data consisted of 5 steps: S1) identification of metaphors, (2) classification of metaphors, (3) category development, (4) validation and reliability and (5) data transfer to SPSS package program for quantitative data analysis.

Results: The students produced a total of 353 valid metaphors for the concept of mental illness. The metaphors obtained were examined in terms of their common characteristics and collected under seven conceptual categories, namely, mental illness as "desperation", "an uncontrollable condition", "a need for care, attention, and support", "uncertainty", "a damaging element", "an impact-response", and "an element requiring effort".

Conclusion: The results revealed that the students' mental illness-related metaphors were largely negative. In the light of these results, it can be recommended that vocational education focuses on transforming the negative perceptions students have on mental illness into more positive images. To achieve this, it is suggested that the number of course hours on this subject be increased and that practical activities related to this subject be organized.

Keywords: Mental illness; metaphor; nursing; student.

Mental illnesses and addiction problems constitute 7% of the world's disease burden and affect more than one billion people.[1] Those who struggle with these issues are faced with limited treatment opportunities and[2] difficulties coping with society's negative attitudes toward them. The negative perception that society has of individuals with mental disorders has existed throughout history and continues to cause them to be exposed to discrimination and stigmatization today.[3–6] Society's attitudes toward mental illnesses directly affect the ability of patients to seek remedies and their compliance to treatment.[3,7] The beliefs and attitudes on mental illnesses can cause individuals to experience problems in support, treatment, and rehabilitation processes.[3,8–10] Furthermore, the negative attitudes that society and healthcare professionals have toward individuals with mental illnesses and psychiatric treatment can prevent patients from applying for and maintaining treatment.[7,11,12] Positive attitudes toward individuals with mental illness enable individuals who suffer from it to integrate into society and facilitate their participation in treatment, while negative attitudes prevent individuals

What is presently known on this subject?

• The negative perceptions, beliefs and attitudes that society and health care professionals have toward individuals with mental illnesses and toward psychiatric treatments affect patients by discouraging them from applying for and maintaining treatment.

What does this article add to the existing knowledge?

• This study reveals that the metaphors applied by nursing students on mental illnesses were negative, which suggests that more effective strategies are required in educational processes to change these negative perceptions.

What are the implications for practice?

• There was no other study found in the literature that examines perceptions of mental illnesses through metaphors. Metaphors can allow a problem that individuals have inadequate knowledge about or that has remained hidden to be revealed, enable issues not well comprehended to be understood and explained more easily, and help to give an event or situation deeper meaning. The themes that emerged through the metaphors created by the nursing students can serve to guide the development of educational content aimed at reducing the prejudices and negative beliefs and attitudes toward individuals with mental problems in order to ensure that nurses can work more effectively with this group in the future.

with mental disorders from becoming socialized, limiting their opportunities to live close to other people and be active in society.[13]

The negative perceptions, attitudes and beliefs regarding mental illnesses affect not only the individuals with these illnesses but also prevent those individuals tasked with providing help and care for them from doing so out of fear that they can get harmed. Failure to understand the actual structure of mental illnesses due to the judgments formed as a result of false beliefs, fears and negative attitudes toward these illnesses is considered to be a major problem, making providing help and care for individuals with mental illnesses difficult.[14] The perceptions of nursing students, who work with individuals suffering from mental problems in clinical practices and who will directly provide care for these people in the future, toward mental illnesses are a factor that may affect the quality of care. Freeing individuals from the effects of their prejudices and beliefs as much as possible during their professionalization process is key to ensuring high-quality care.[15,16] Therefore, it is extremely important to determine the perceptions of mental illnesses at the outset of the educational life of students. With the present study planned based on this understanding, the aim was to identify nursing students' perceptions on mental illness. The results will serve to provide guiding information for interventional studies.

The main purpose of this study is to reveal nursing students' perceptions on the concept of mental illness through metaphors. The following research questions were developed to guide the study:

1. What are the metaphors the nursing students developed for the concept of mental illness?

2. What categories were the metaphors the nursing students developed for the concept of mental illness divided into in terms of their common features?

Materials and Method

Among the qualitative research designs focusing on how individuals establish and interpret their lives and the meanings they give to their experiences,[17] the phenomenological design, which is used to determine individuals' views on a phenomenon, focusing specifically on phenomena about which there is awareness but no in-depth and detailed understanding, was applied in this study.[18] Since this study aimed to enable nursing students to evaluate the metaphors they use in their perception of the concept of mental illness, this basic qualitative research design was considered to be the most appropriate.

The study group included 496 nursing students studying in the Ankara University, Faculty of Health Sciences, Nursing Department in the 2017–2018 academic year. The convenience sampling method was used to select the participants.

Data Collection

The study data collection process involved exploration of metaphors, a data collection method that is frequently used to describe and understand experiences and perceptions. The purpose of this approach is to gain in-depth information about how individuals perceive events through metaphors and through meanings attributed to these metaphors.[18] The data were collected using the Metaphorical Perceptions Data Collection Form, developed by the researchers in accordance with the literature. The form is composed of two parts, with the first part including questions on the students' sociodemographic characteristics, and the second part including one sentence, "Mental illness is like ………………. because………….. (From your point of view, what is mental illness like? Why?"). The participants were given the Metaphorical Perceptions Data Collection Form and asked to fill it out completely, with the special instruction that they should create a single metaphor in line with their thoughts on the concept of mental disease. Other than that, there was no guidance given to them about creating the metaphor. The form included the aim of the study, the purposes for which the obtained data would be used, and information explaining the concept of metaphor. The students were given 20 minutes to reflect on the concept of mental illness and to create their own metaphors about this concept. These forms were filled out in the students' own handwriting and constituted the main data source of the study.

Ethical Considerations

Before conducting the study, ethical approval to conduct it was obtained from the Ankara University Ethics Committee (Number: 56786525-050.04.04/56192), and written permission was received from the institution where the study would be conducted. Furthermore, the students who agreed to participate in the study were given information by the researchers about the aim and method of the study, and their written and verbal consents were obtained.

Data Analysis

Analysis and interpretation of the metaphors the students developed for the concept of mental illness were conducted in five stages per the specifications stated in the qualitative data analysis approach referred to as "Metaphor Analysis" in the international literature.[19–22] This type of analysis is associated with the content analysis according to Moser[23] (2000), and it was suggested by Saban[24] (2009) in Turkey.

Coding and sorting stage: In this stage, the Metaphorical Perceptions Data Collection Forms were examined. The obtained metaphors were sorted in alphabetical order creating a temporary list. Next, the metaphors were coded as "cancer" or "maze". Any forms that were left completely blank, incomplete or included statements not considered to be metaphors (n=143) were excluded from the analysis.

Sample metaphor image review stage: The metaphors provided by the students were listed in alphabetical order and the raw data were reviewed. "A list of sample metaphors" was created by selecting "sample metaphor statements" that represented each metaphor.

Category development stage: In this stage, valid metaphors were examined in terms of their common features and analyzed according to their subject, origin and the relationship between the subject and origin of the metaphor. Each metaphor image was associated with a theme in connection with the common features of mental illness and then examined and categorized under different conceptual categories.

Validity and reliability stage: It is extremely important to present the research process in detail to ensure validity in qualitative studies. Therefore, the data analysis is explained in detail. As part of the data analysis process, the sample metaphor images were reviewed and are presented in the Results section, along with quotations from the statements of the students. To ensure reliability of the research, expert opinions were taken from three faculty members. The metaphors and categories were finalized in line with these opinions.

Transfer of data to a computer environment: In this stage, the metaphors and categories were transferred to a computer environment, and their frequency (f) values were calculated.

The research is limited to the metaphors and explanations given by nursing students studying at a single university.

Results

The mean age of the students who participated in the research was determined to be 20.81±1.51. Table 1 shows the sociodemographic characteristics of the 496 students who participated in the research.

The metaphors produced by the students regarding the concept of mental illness and the categories created from these metaphors are presented in table form. The students produced a total of 353 valid metaphors for the concept of mental illness. The metaphors were examined in terms of their common char-

Table 1. Sociodemographic characteristics of the participating students

Characteristics	n	%
Gender		
Female	386	77.8
Male	110	22.2
Marital status		
Single	496	100
Married	0	0
Year		
1st year	118	23.8
2nd year	117	23.6
3rd year	107	21.6
4th year	154	31.0
Total	496	100

acteristics and were collected under seven conceptual categories. These categories include mental illness as desperation, mental illness as an uncontrollable condition, mental illness as a need for care, attention, and support, mental illness as uncertainty, mental illness as a damaging element, mental illness as an impact-response, and mental illness as an element requiring effort (Table 2). Samples of the metaphors produced by the participants and arranged under the specified categories were assessed with reference to students' statements.

Category 1. Mental disease as desperation: In this category, the students interpreted mental illness as overwhelming desperation. Some sample metaphorical statements included in this category are given below:

"Mental illness is like a dark, dead end street because an individual suffering from it has no way to go or no door to get out from anymore."(S18)

"Mental illness is like a locked room because nobody hears the voice coming from inside and you cannot get rid of it."(S26)

"Mental illness is like a tangled knot because the result does not change no matter how much effort you make. The problem is not resolved completely."(S195)

"Mental illness is like a marsh because once you fall into it, it absorbs and chokes you. It brings you to a deadlock."(S288)

"Mental illness is like a black hole because it absorbs anything endlessly."(S288)

"Mental illness is like a black hole because once the illness begins, it absorbs like a black hole. You become enslaved by it and enter into dead ends."(S377)

Category 2. Mental disease as an uncontrollable condition: The prominent feature of the metaphors in this category is that mental illness is considered to be an uncontrollable condition. Samples of the metaphorical statements included in this category are given below:

"Mental illness is like the sunrise/sunset because mental illnesses occur outside of the control of people."(S163)

Table 2. Categories created from the metaphors the students developed for the concept of mental illness

Categories	Metaphors	Frequency
1. Mental illness as desperation	Emptiness, a locked room, a skin tag, a child with no family or relatives, a dream you cannot wake up from, a black cloud, feeling of being lost, a room with no door, a dark room, a dead end street (3), a tree, a drama film, a stopped clock, a bottomless pit, a cage, a trap, a crying child, a tangled knot, darkness (15), eternity, a dead end, a prisoner (2), a black cloud, death, a bottomless well, a black hole (3), a dried tree, a dry ballpoint pen, emptiness (7), black hole, night (3), a knot, trapped in a box, outer space (3), night, maze (11), chaos, a bottomless well (4), a marsh.	81
2. Mental illness as an uncontrollable condition	Emptiness (4), a tree, a baby (4), a drunk person, sunrise/sunset, a child (3), alcohol, a flying balloon, a knife, a fish, darkness, a cat (4), an insect with broken antennas, a broken toy (4), a nightmare, dark, a storm (3).	33
3. Mental illness as a need for care, attention, and support	A baby (7), a plant (2), a child (8), a tree, a flower garden with faded flowers.	19
4. Mental illness as uncertainty	Newly greened clover, 4th dimension, a watermelon (2), a dark room (7), weather forecast (8), ocean, mask (2), stock market (2), moon, a chameleon, an abstract painting (3), windy weather, thunder, a blurred photo, a tree, season, cloud (2), water, leaf, sky (7), dart board, wave, shadow (5), a book, love, cloudy weather, sky, shadow, a mysterious box, wind (3), a mirror, space (5), star, dark (5), a broken radio, fog, volcano, a child, traffic, sea, a racehorse with no jockey, a matryoshka doll, a black box, a chameleon, wavy sea (5), a bottomless well, emptiness (5), a black hole.	95
5. Mental illness as a damaging element	A killer father on his deathbed, a wolf (2), cancer (11), creeper, creature, a knot, poison, invisible wound (2), unsound column in the building, a burning piece of wood, examination, downpour, moon, a rotten fruit (4), rainy weather, a cigarette, a bottomless well (4), landslide, flu, earthquake (5), darkness (6), a tumor, flu, serial killer, torture, a spider web, war, torture, a snake, bacteria, traffic accident (3), emptiness, nightmare, a tick (4), a black box.	67
6. Mental illness as an impact-response	Broken down motor, a knot, a windmill, a car not going in the right direction, a frisbee, a wounded bird, scales (5).	11
7. Mental illness as an element requiring effort	Day and night, a dark box, a walnut, a tree in fall, a rose, work accident, a difficult examination (2), mathematics, a maze (9), darkness (6), a bicycle (2), a touchy friend, weight (2), an orphaned child, a well, a dark room (6), a broken watch, a well, a black cloud, fog, a flower, dark, a pressure cooker, shadow, a black dog, a bottomless well.	47
Total		353

"Mental illness is like a broken toy because you can never know from one instant to the next what it will make you do."(S350)

Category 3. Mental illness as a need for care, attention, and support: In this category, the students focused on the need for care, attention, and support for mental illness. Samples of metaphorical statements included in this category are given below:

"Mental illness is like a plant because a plant becomes green, sprouts and comes alive when cared for, watered, and given attention. If you do not care for it, it withers up and gets sick. You recover from mental illness when you receive care and support."(S99)

"Mental illness is like a baby because it requires care and attention."(S407)

Category 4. Mental disease as uncertainty: In this category, the students interpreted mental illness as uncertainty. From the metaphors produced by the students, this category had the highest number of metaphors and the greatest frequency. Samples of the metaphorical statements included in this category are given below:

"Mental illness is like the Moon because one face is dark, and the other is bright. It is not clear when it will be bright."(S66)

"Mental illness is like the sky because it is endless, and it is uncertain when it will rain and when the sun will shine."(S117)

"Mental illness is like cloudy weather because it is uncertain when and what it will bring. Sometimes the sun shines, and sometimes lightning flashes."(S176)

"Mental illness is like the wind because it is uncertain when it will blow and when it will settle down."(S241)

"Mental illness is like a broken radio because it is uncertain what it will play and sing at any given time."(S326)

Category 5. Mental illness as a damaging element: The prominent feature of the metaphors in this category is that mental illness is seen as being harmful to the mentally ill and their environment. Samples of the metaphorical statements included in this category are given below:

"Mental illness is like cancer because it kills the soul as cancer kills the body."(S163)

"Mental illness is like torture because it does not kill you. It brings people down and destroys them from within."(S301)

"Mental illness is like a tick because just as a tick sucks our blood, mental illness sucks our brain dry."(S464)

"Mental illness is like an earthquake because it comes suddenly, cannot be prevented and leaves destruction in its wake."(S470)

Category 6. Mental illness as an impact-response: The students interpreted the concept of mental illness as a response against an impact. Samples of the metaphorical statements included in this category are given below:

"Mental illness is like a frisbee because all of life's experiences come back to us."(S108)

"Mental illness is like a wounded bird because people fly through life, experience events that make them tired and all of a sudden hit an obstacle from which they cannot recover."(S214)

Category 7. Mental illness as an element requiring effort: The prominent feature of the metaphors in this category is that mental illness is seen as requiring effort. Samples of the metaphorical statements included in this category are given below:

"Mental illness is like a flower because it blossoms and becomes green if you treat it well and provide it water and light regularly. If you do not pay attention to it, it becomes weary of life."(S214)

"Mental illness is like a maze because it is necessary to find the right way in order to get out."(S357)

Discussion

Considering that metaphors are powerful mental tools used for understanding and explaining an abstract, complex or theoretical phenomenon, this study aimed to identify nursing students' metaphorical perceptions of mental illness. The findings from examination of the nursing students' perceptions of mental illnesses through metaphors revealed that the sample of 496 students produced 353 metaphors, of which 177 were created by individual students. The large number of metaphors created by the students demonstrates the multifaceted nature of their perceptions on mental illnesses. From this it can be inferred that the multidimensional, complex nature of mental illness cannot be explained with a single metaphor.

The 353 metaphors created by the students for the concept of mental illness were arranged under seven conceptual categories in line with their common characteristics. These categories included mental illness as desperation, mental illness as an uncontrollable condition, mental illness as a need for care, attention, and support, mental illness as uncertainty, mental illness as a damaging element, mental illness as an impact-response, and mental illness as an element requiring effort. The metaphors created by the participating students showed that their perceptions of mental illness were negative.

Perception is defined as transference of the objective world to the subjective conscious through senses, governing what we see, how we interpret, what we believe in and how we behave.

[25] The results of the present study show that negative perceptions toward mental illness are common in Turkey. Studies in the literature examining the perceptions, attitudes and beliefs regarding mental illness held by different groups, including students of different education levels and health care professionals, likewise show that these negative perceptions are common. Taşkın and Özmen[26] (2004) examined the studies that have been conducted in Turkey over a 30-year period on attitudes regarding mental illnesses and found that society had antagonistic, exclusionary, discriminative and restrictive attitudes toward patients with mental illness, that the increase in knowledge about mental illness etiology, prognosis and treatment did not significantly change the public's acceptance of mentally ill patients, and that the public wanted to keep their distance from patients with mental problems; especially in situations requiring personal closeness and social responsibility, this need for social distance and the tendency to reduce or completely cut off the interaction with mentally ill patients was even more pronounced.[26] Another study evaluated the attitudes of adults toward mental illnesses/patients with mental illnesses and reported that women were more scared than men of mental illnesses/patients with mental illnesses, and that those who grew up in an urban environment were more apt to exhibit negative attitudes toward mental illnesses/patients with mental illnesses than that of those who grew up in a rural environment.[27] In studies involving university students, one stated that university students across different departments have negative attitudes toward individuals with mental illnesses,[28] while in another, it was reported that university students consider mental illness to be a shameful situation and individuals with mental illnesses to be dangerous. [16] Furthermore, in parallel with the present study results, the belief held by students that mentally ill people are dangerous is associated with the belief that interpersonal relationships with them would be detrimental and cause despair to set in.[16]

Besides the university students constituting the study group of the present study, there are other studies involving students of different education levels that also show that students have negative perceptions toward mental illnesses. Arslantaş et al.[29] (2019), for example, conducted a study with high school students and found that those who felt that individuals with mental illnesses should not interact with other members of society and those who stated that the first ideas that come to mind when speaking of mental illness were insanity and madness had negative perceptions about mental illnesses. Another study conducted with high school students similarly reported that students had negative attitudes toward mental illnesses and maintained social distance from those who are mentally ill.[30] As the level of education increases, negative perceptions of mental illness are expected to decrease, and there is more acceptance of mental illness/mentally ill individuals.[27] Taking into consideration this effect of education on negative perceptions, beliefs and attitudes toward mental illness, the fact that most of the participating students were first-, second- and third-year students (68.8%) who had not taken any mental ill-

ness courses, as these courses are only offered in their final year, can explain the largely negative metaphors created by them. However, several studies examining the views of instructors, who can be considered as having the highest levels of education on mental illnesses/individuals with mental illness, reported that a great majority of instructors who work in physical and social sciences fields define individuals with mental illness as people who harm themselves and those around them,[31] and that educators at university have negative attitudes toward individuals with mental illness.[28] It is clear from these findings that more research needs to be done on the effect of education on mental illnesses and individuals with mental illness.

The negative beliefs held by families, society, and healthcare professionals toward mental illnesses and individuals with mental illness can affect the help-seeking behaviors of patients and their families in this group[12] and may cause them to feel socially insignificant.[32] However, when healthcare professionals have positive beliefs about mental illnesses, this can have a positive effect on the support of the patient and the family during the treatment process.[32] Similar to the results from this study, other studies have observed that healthcare students and professionals working in the healthcare field have a negative view of mental illnesses and individuals with mental illness. A study examining the attitudes and knowledge of physicians and medical faculty students regarding mental illnesses concluded that there was a negative tendency in terms of the treatment of mental illnesses and the attitudes toward individuals with mental illness.[7] A study conducted with nurses, who constitute an important occupational group in the healthcare field, reported that nurses had a fear of individuals with mental illness and exhibited exclusion behavior.[33] Another study reported that university students studying in the field of healthcare regarded individuals with mental illness as dangerous, experienced frustration and helplessness in interpersonal relations with individuals with mental illness and had negative beliefs about individuals with mental illness.[13] Similarly, Öztürk et al.[34] (2015) conducted a study with nursing students and reported that they generally had negative beliefs about mental illnesses. The perceptions students have about mental illnesses can affect their professional preferences in the future. Nursing students who have negative beliefs about mental illnesses, especially those who consider mental illness to be a shameful condition, have a low tendency to see psychiatric nursing as a professional occupation, and thus are less likely to work as psychiatric nurses after graduation.[35] Similarly, the results of another study conducted with nursing students showed that most of the participating students did not want to work in psychiatric clinics due to their prejudices and negative perceptions regarding mental illnesses/individuals with mental illness.[36] The fact that individuals who are educated and work in the healthcare field, including the students who participated in the present study, can have negative perceptions of mental illnesses/individuals with mental illness implies that education needs to focus more attention on teaching students about mental illnesses/individuals with mental illness, and that the content related to this subject needs to be integrated into each educational period.

Contrary to the present research findings, there are studies in the literature indicating positive perceptions on mental illnesses, and these positive perceptions are associated with students' grades and education styles. In several studies evaluating nursing students' beliefs about mental illnesses, it was reported that they have positive beliefs about mental illnesses.[15,32,37] It is reported that the negative perceptions, attitudes and beliefs about mental illness may decrease through education, and that the method of education used can be effective in decreasing negative thoughts.[35] A study conducted with nursing students from three different universities reported that nursing students of a university that used the problem-based learning model in its curriculum had more positive thoughts regarding mental illnesses and a higher readiness to work with individuals with mental illnesses.[35] A study examining nursing students' attitudes toward schizophrenia found that students who were informed about psychiatric patients had positive attitudes,[38] and that the students' negative attitudes toward mental illnesses decreased significantly after they completed a theoretical course on mental illnesses.[39] In a study conducted to determine the attitudes of nursing students toward individuals with mental disorders and the factors associated with these attitudes, it was observed that there was a difference in attitudes according to class year level,[40] with third- and fourth-year nursing students giving significantly more positive responses to questions about mental health, and that as academic year level increased, the rate of positive responses increased.[41] Another study conducted with medical faculty students similarly found that intern students gave significantly positive responses about individuals with mental disorders.[42] It has been reported that psychiatric nursing courses positively change the attitudes of students toward mental illnesses and patients with mental problems.[36] Contrary to these findings, a study examining the attitudes of students in a nursing department toward individuals with mental disorders and the affective factors concluded that theoretical and practical education was not effective enough in changing students' attitudes.[40] These reported results imply that the content, effectiveness and quality of education are quite important in changing negative perceptions of mental illnesses.

Conclusion

Metaphors can allow a problem that individuals have inadequate knowledge about or that has remained hidden to be revealed. Thus, metaphors can help to understand and explain poorly understood issues and to give deeper meaning to events or situations.[43] Depending on data collection through the metaphors used in the study, revealing the deeper perceptions of the students may have led to some of the different

results from those reported in the literature. Overall, the study showed that the students explained mental illness with negative metaphors, had generally negative perceptions of the illness, and emphasized the incurable, uncertain, harmful, and uncontrollable nature of mental illness. With the use of metaphors, it is possible to understand students' perceptions of mental illness by identifying how they describe their knowledge and experiences about the illness. In conclusion, the following is recommended: offer elective courses on mental illnesses and stigmatization that cover each year of the nursing undergraduate curriculum; develop education curricula that help to facilitate awareness of mental illnesses, not only in a single period, but from the start of their education; include psychoeducation in the psychiatric nursing curricula to reduce students' negative beliefs about patients and to raise awareness of mental illnesses; include preclinical simulation applications in the curricula to reduce students' feelings of fear, prejudice, and uncertainty and to ensure their readiness before starting clinical practice; organize education programs that aim to create awareness in students and society about stigmatization toward mental illnesses and its effects.

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