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The Impact of Mental Health Nursing Module, Clinical Practice and an Anti-Stigma Program on Nursing Students' Attitudes toward Mental Illness: A Quasi-Experimental Study

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ABSTRACT

Background: It is important to support nursing students during their education in developing positive attitudes toward people with mental illness.
Objectives: To examine the impact of mental health nursing module, clinical practice, and anti-stigma program on the attitudes of nursing students toward mental illness.
Design: The study was a single group pretest and posttest quasi-experimental design.
Settings: This study was conducted in a nursing school in the west of Turkey.
Participants: The sample of the study consisted of 64 undergraduate nursing students.
Methods: The data were collected through the Beliefs Toward Mental Illness Scale and Social Distance Scale.
Results: The mean scores of the dangerousness subscale significantly decreased after mental health nursing module, clinical practice and anti-stigma program. The results revealed significant positive differences in the mean scores of the social distance scale after the theory, clinical practice, and anti-stigma program were completed.
Conclusions: The mental health nursing curriculum should be focused on replacing stereotypes with accurate information. Anti-stigma programs should be included in standard mental health nursing courses.

Introduction

Stigma and discrimination are great burdens for people with mental illness and also for their families and for society (Rüsch & Xu, 2016). People with mental illness experience problems with seeking psychiatric help and reintegrating into society because of this stigmatization. In addition, the patients' and their families' social functions and access to education and employment opportunities can be prevented (Çam & Bilge, 2013; Fitzpatrick, 2015). When health care services are provided, priority should be given to improving the welfare of both patients and their families by reducing stigmatization (Rüsch & Xu, 2016), and nurses who are in contact with patients, their relatives, and other members of society have the opportunity to be role models for creating positive attitudes (Çam & Bilge, 2013; WHO, 2014). However, many nurses have the same negative beliefs and attitudes toward mental illness as found elsewhere, which has a negative effect on their nursing care (Happell & Hayman-White, 2009). Therefore, it is important to support nursing students during their education in developing positive attitudes toward people with mental illness (Chan & Cheng, 2001).

Background

Prejudices which involve cognitive and affective dimensions result in behavioral responses like social distance. In the cognitive domain, nursing students mostly consider people with mental illness to be unpredictable, dangerous and incurable (Bennett & Stennett, 2015; Günay, Bekitkol, Ekitli, & Yıldırım, 2016; Poreddi, Thimmaiah, Chandra, & BadaMath, 2015). The perception of dangerousness adversely affects emotional reactions and results in social distance. The perception that people with schizophrenia are in need of help from others leads to complex emotions, and this can affect social distance either positively or negatively (Angermeyer & Matschinger, 2003). A study conducted on the attitudes of nurses and nursing students toward schizophrenia found that a majority of the participants would be uncomfortable marrying an individual

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diagnosed with schizophrenia as well as having them as neighbors or working in the same office with them (Özyiğit et al., 2004). Similarly, another study that mainly included nursing students showed that students were unwilling to get married to or work with schizophrenia patients, and they displayed more rejective attitudes than other members of the public (Taşkın, Özmen, Özmen, & Demet, 2003). However, a review including Turkish studies of nursing students' and health professionals' attitudes toward psychiatric patients and psychiatric diseases revealed that rejection and alienation attitudes toward these patients has not changed in the last decade (Arkan, Bademli, & Duman, 2011). This requires a review of mental health nursing education to determine ways of creating positive attitudes (Çam & Bilge, 2013).

Mental health nursing course and stigma

The mental health nursing course is a key element of the nursing program, and it consists of theory and clinical practice (Chan & Cheng, 2001). These core elements should be restructured to promote the development of positive attitudes. Previous studies including nursing students indicated that educational preparation is a significant factor in students' attitudes (Happell & Hayman-White, 2009). Similarly, there are studies indicating that nursing students' attitudes change positively after theoretical course (Chan & Cheng, 2001; Duman & Günüşen, 2017; Duman, Günüşen, İnan, İnce, & Sarı, 2017). Although most of the nursing students were well-informed about mental illness, no change was observed in negative stereotypes toward mental illness (Happell & Gough, 2007; Poreddi et al., 2015). However, nursing education can positively affect these negative attitudes (Çam & Bilge, 2013). Clinical practice is another domain that affects students' attitudes toward mental illness. Studies show that most of the nursing students experience fear and anxiety because of their prejudices before clinical practices (Ketola & Stein, 2013; Lehr & Kaplan, 2013). Thus, prejudice is a critical domain of clinical practice (Choi et al., 2016). Another study found a positive change in nursing students' attitudes toward mental illness after clinical practice (Chadwick & Porter, 2014). Similarly, a study revealed that nursing students had less fear and prejudicial feelings after their clinical practice (Ketola & Stein, 2013).

Anti-stigma programs

The World Psychiatric Association (WPA) launched a program to reduce worldwide stigma and discrimination toward schizophrenia. Turkey is one of the countries included in this program. This program places emphasis on the importance of anti-stigma programs (The World Psychiatric Association, 2005). In order to promote this emphasis, special education interventions should be added to sustainable mental health nursing education programs in Turkey regarding knowledge, belief, and behavioral change (Arkan et al., 2011). A review examined the effectiveness of education on stigmatization among young people, and concluded that education on mental illness reduced stigmatizing attitudes (Oban & Küçük, 2011). Üçok et al. (2006) evaluated the effectiveness of education on stigmatization and found that attitudes of health professionals changed positively after relevant education was provided. However, there are a limited number of intervention studies that have been conducted with nursing students. A camp program was conducted in Australia with nursing students and psychiatric experts with the aim of changing stigmatizing attitudes toward mental illness, and it was observed that attitudes were changed positively after the program (Stuhmiller, 2003). Another study found that nursing students who attended a recovery camp reported significant decreases in social distancing, compared to the typical placement group (Moxham et al., 2016). A study conducted in Turkey showed that short films produced by nursing students about mental illness had a positive effect on stigmatization (Bilge & Palabiyik, 2017).

Consequently, changes in attitudes of students in different stages of education, such as theory and clinical practice, should also be examined. Existing studies are peculiar to the specific stages of the mental health nursing course being undertaken, and they have been conducted within different cultures. Culture and ethnicity are important factors that determine attitudes toward mental illness (Schafer, Wood, & Williams, 2011). The present study is also intended to test whether anti-stigma programs make a difference or not, in addition to theory and clinical practice. The aim of this study was to investigate the effects of mental health nursing module, clinical practice, and anti-stigma programs on the attitudes of nursing students toward mental illness. The results of the study are thought to provide educators with important data regarding effects of mental health nursing course on the nursing students' stigmatizing attitudes and structuring anti-stigma programs.

Study hypothesis

Hypothesis 1. There will be a statistically significant difference in nursing students' beliefs dangerousness toward mental illnesses after a mental health nursing module, a mental health nursing clinical practice, and an anti-stigma program.

Hypothesis 2. There will be a statistically significant difference in nursing students' beliefs of incurability and disturbance in interpersonal relationships with regard to mental illnesses after a mental health nursing module, a mental health nursing clinical practice, and an anti-stigma program.

Hypothesis 3. There will be a statistically significant difference in nursing students' beliefs shame toward mental illnesses, a mental health nursing module, a mental health nursing clinical practice, and an anti-stigma program.

Hypothesis 4. There will be a statistically significant difference in the social distance of nursing students toward mental illness, after a mental health nursing module, mental health nursing clinical practice, and an anti-stigma program.

Methods

Study design and participants

This study was conducted in the west of Turkey with third-year nursing students using a one-group quasi-experimental design. Inclusion criteria are as follows: completing the theory and then clinical practice in the adult psychiatry clinic, and completing all sessions of the anti-stigma program and voluntarily agreeing to participate in the study. In this study, 68 students met these criteria while four students did not participate in the pre-test and post-test evaluations and were excluded from the study. The final sample of the study consisted of 64 students (response rate = 94%).

Procedure

The mental health nursing course is part of the 4-year nursing education in Turkey. The course is provided in the third year of

Table 1
Description of content of mental health nursing module, clinical practice and anti-stigma program.

Theory (25 h)	Clinical practice (64 h)	Anti-stigma program (32 h)
Contents of schizophrenia module: • Mental health, concepts of normal and abnormal, • Stigmatization toward people with mental illness • Etiology and symptoms of schizophrenia • Psychopharmacology and psychosocial treatments in schizophrenia • Treatment compliance in schizophrenia • Legal and ethical issues in psychiatry • Family burden in chronic mental illness • Nursing interventions for caring to patients with schizophrenia • Approaches to patients with delusions and hallucinations (Communication Lab.) • Interview skills with psychiatric patients • Discharge education for patients/families	Clinical practice area: • Adult psychiatry clinic	Aims and activities Aims: • Understanding concept of stigmatization • Recognizing the effects of stigmatization on patients, families, society • Taking responsibility to decrease stigmatization Session 1. Introduction to program Labels and the basis of stigmatization İmpact of stigma on patients, families, society Session 2. Debates on coping with stigmatization "Does renaming schizophrenia affect stigmatization?" Presentation of video that include experts' opinions about coping with stigma Session 3. Introduction to plan anti-stigma campaign Session 4. Article discussions about self-stigma and public stigma Presentation of documentary film about persons with schizophrenia Session 5. Describing aims and outcomes of anti-stigma campaign Session 6. Implementation of anti-stigma campaigns-1 Session 7. Visiting the Schizophrenia Solidarity Association Implementation of anti-stigma campaigns-2 Session 8. Presentation outcomes of anti-stigma campaigns

nursing education. The problem-based learning method is implemented in the school where this study was conducted, and the schizophrenia module is used within the studies of the mental health nursing theory. The sessions of the module were conducted with 7 groups of 13 to 15 students under the guidance of tutors. The duration of the session on theory was 25 h; 6 h of this theoretical content consisted of presentation, and 3 h consisted of communication laboratory. In each session, the students identified learning issues such as mental health, causes of mental illnesses, evaluation of mental status, stigmatization toward people with mental illness and family burden. In the next session, they discussed these learning issues identified in small groups. In addition, students received a six-hour lecture on legal and ethical issues in psychiatry, becoming a caregiver, drug treatments in psychiatry, and interview skills with psychiatric patients. During the module, students had a three-hour communication laboratory on the approach to a patient having delusions, hallucinations and aggressive behavior. The contents of the module are given in Table 1.

After the students completed the module, they attended a 64-hour clinical practice. The clinical practice consists of two main areas, an adult psychiatric clinic and a nursing home. The sample of this study consisted of students who had completed their clinical practice in an adult psychiatric clinic. In the adult psychiatry clinic, each student took the responsibility of care for one or two patients. The students collected data during purposeful interviews and observations and they planned and implemented nursing care with the guidance of the nurse educator. Furthermore, the nurse educator performed a critical analysis of a situation that student's experienced during clinical process by reflection in the middle of the implementation, and discussed this situation with the group.

The students included in the study had the same theoretical education, completed clinical practices in the same adult psychiatric clinic, and participated in the anti-stigma program afterward. The anti-stigma program was implemented by the first researcher.

Anti-stigma program

This program aimed to help students understand the concept of stigmatization, recognize the effects of stigmatization on patients and their families, and take responsibility in attempting to decrease stigmatization. The program included discussion of myths on mental illness, group studies that allow students to realize their own prejudices, and instruction in steps which need to be taken by society (Üstün & İnan, 2018). The program included debates on coping with stigmatization, short video presentations by experts, screening of documentary films that describe the lives of patients with schizophrenia, reviewing articles on stigmatization, and participating in events such as concept maps and projects. Furthermore, the students visited the Schizophrenia Solidarity Association. The association was established in 1996 by collaborating with patients, patient relatives, and health care professionals. The association focuses on improving the collaboration of patients, families, and caregivers as well as strengthening their coping skills and fighting with stigmatization. Students visited individuals with mental illness and their family caregivers living in society with the purpose of making observations, interacting, and understanding the impacts of stigmatization. The students were expected to plan and implement an anti-stigma campaign as part of the program. Students collaborated with instructors on a one-to-one basis while planning and implementing their campaign. The program consisted of 8 sessions presented over 4 days. The program was presented to student groups which were composed of 10 to 12 people and each session lasted an average of 120 to 180 min. The content of the anti-stigma program is given in Table 1.

Data collection

The students were informed about the purpose of the study and how study results would be used before the mental health nursing module began. Moreover, the researcher explained that participation in the study was voluntary and that participating or not participating in the study would not impact grades. Participants were free to withdraw from the study at any time. The students who did not want to write their names on the data collection forms were told that they could use nicknames instead. Afterwards, verbal and written consent was obtained. The data were collected before the module (pre-test), after the module (post-test 1), after the clinical practice (post-test 2), and after

the anti-stigma program (post-test 3). Time interval was three weeks between pre-test and post-test 1, five weeks between post-test 1 and post-test 2, and two weeks between post-test 2 and post-test 3 administrations of the scales.

Instruments

The study was conducted using the Socio-demographic Information Form, the Beliefs Toward Mental Illness Scale (BMI) and the Social Distance Scale.

Demographic information form

The socio-demographic information form included data on students' socio-demographic characteristics (age, gender, etc.).

Beliefs toward mental illness scale - BMI

The scale was created to determine beliefs regarding mental illness of individuals who have diverse cultural features (Hirai & Clum, 2000). The scale had three subscales, including the incurability and disturbance in interpersonal relationships subscale, the dangerousness subscale and the shame subscale. The BMI is a six-point Likert-type scale which includes 21 items. The scale was adapted to Turkish society.

The Cronbach's Alpha correlation coefficient was 0.82 for the total scale, 0.80 for Incurability and Disturbance in Interpersonal Relationships subscale, 0.71 for Dangerousness subscale, and 0.69 for Shame subscale. Dangerousness subscale involves items numbered 1, 2, 3, 4, 5, 6, 7 and 13, and it mentions that mental illnesses and mentally ill patients were dangerous. Incurability and Disturbance in Interpersonal Relationships subscale involves items numbered 8, 9, 10, 11, 14, 16, 17, 18, 19, 20 and 21. Mental illnesses' impact on interpersonal relationships assesses the recovery and belief about the mentally ill individuals' incurability. Shame subscale involves the items 12 and 15, and it evaluates the individuals' beliefs about whether mental illness is a situation to be ashamed of or not. The scale was interpreted considering both the total score and the subscale scores, with higher scores indicating more negative beliefs (Bilge & Çam, 2008).

Social distance scale

The Social Distance Scale was developed by Arkar (1992) and included two vignettes and questions about these vignettes. A paranoid-type schizophrenia vignette was used in this study. The vignette describes behaviors without mentioning the term 'schizophrenia', and assessed the social distance preferred between oneself and the person portrayed in the vignette. The vignette was followed by 14 questions. These questions were in the subscales of neighborhood, marriage, renting a house, sharing the same room at the workplace, getting a haircut, sharing personal problems, sitting close to him/her on a city bus, playing cards or tombola, and participating in a familial meeting that involves this individual. Two examples for these questions are "Would you be it disturb you to sit close to this person on a city bus?", "Assume that you have a house for rent. Would you rent your house to this person?"

This was a 7-point Likert-type scale (i.e. 'strongly disagree = 1' to 'strongly agree = 7'). The reliability coefficient of the scale was found to be 0.88. The scale was evaluated based on the total score. Higher scores indicated greater social distance (Arkar, 1992).

Table 2
Demographic characteristics of participants.

Characteristic	Mean	SD
Age	21.79	1.15
Gender	n	%
Female	56	87.5
Male	8	12.5
Having a psychiatric patient in family		
Yes	4	6.3
No	60	93.7
Having a psychiatric patient around		
Yes	19	29.7
No	45	70.3
Have you ever had a psychiatric support before?		
Yes	5	7.8
No	59	92.2

Data analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) for Windows, Version 16.0 (SPSS Inc., Chicago, IL). The scores of the beliefs toward mental illness and social distance scales were compared across time with Friedman's test, and further analyses of differences were undertaken using paired Wilcoxon test with Bonferroni correction because data did not conform to the normal distribution.

Ethical considerations

Approval was obtained from the Noninvasive Research Ethics Board at the relevant university. The students were informed about the aim of the study, and their verbal and written permissions were obtained.

Results

Sociodemographic characteristics of students

The mean age of the students was 21.79 ± 1.15. The majority of the students were females (87.5%) (n = 56). Of the students, 6.3% (n = 4) had a family member with a mental illness, 29.7% (n = 19) had relatives or friends with a mental illness, and 7.8% (n = 5) had received psychiatric support beforehand (Table 2).

Beliefs toward mental illness

Incurability and disturbance in interpersonal relationships

There were significant differences across time among the students' mean scores of incurability and disturbance in interpersonal relationships subscale of the BMI (P = .000) (Table 3). The mean pretest score for this subscale was significantly higher than post-test 2 and post-test 3 scores (P = .000). Similarly, the mean post-test 1 score for the incurability and disturbance in interpersonal relationships subscale was significantly higher than post-test 2 and post-test 3 scores (P = .000). In addition, a significant difference was observed between post-test 2 and post-test 3 scores (P = .000). However, no significant difference was observed between the students' pre-test scores and post-test 1 scores (P = .142).

Dangerousness

The Friedman's test results indicated significant differences in the mean scores of the dangerousness subscale across pre-test and post-test 1, post-test 2 and post-test 3 (P = .000) (Table 3). The mean pre-test

Table 3
Comparison of the beliefs toward mental illness scores before the mental health nursing module, after module, after clinical practice and after an anti-stigma program (n: 64).

Subscale of BMI	Pre-test[a] Mean ± SD	Post-test 1[b] Mean ± SD	Post-test 2[c] Mean ± SD	Post-test 3[d] Mean ± SD	χ2 Friedman	p
Incurability and disturbance in interpersonal relationships	24.46 ± 8.38	23.00 ± 8.85	18.26 ± 8.18	12.67 ± 8.45	72.02	0.000
Dangerousness	21.62 ± 6.02	18.71 ± 6.81	16.04 ± 6.29	10.15 ± 6.46	95.94	0.000
Shame	0.85 ± 1.67	0.87 ± 1.37	0.90 ± 1.61	0.70 ± 1.39	1.24	0.743

score of the dangerousness subscale was significantly higher than post-test 1 ($P = .002$), post-test 2 ($P = .000$) and post-test 3 scores ($P = .000$). In addition, a significant difference was observed between post-test 1 and post-test 2 scores ($P = .001$), and post-test 1 and post-test 3 scores ($P = .000$), and post-test 2 and post-test 3 scores ($P = .000$).

Shame

No significant difference was observed in the mean scores for the shame subscale across pre-test, post-test 1, post-test 2, and post-test 3 scores ($P = .806$) (Table 3).

Social distance

The Friedman's test results indicated significant differences in the mean scores of the Social Distance Scale across pre-test and post-test 1, post-test 2, and post-test 3 scores ($P = .000$) (Table 2). The advanced analysis showed that the mean scores obtained from the social distance subscale in each measurement decreased significantly ($P = .000$) (Table 4).

Discussion

This study examined the effects of the mental health nursing module, its clinical practice, and the anti-stigma program on nursing students' attitudes toward mental illness.

The effect of the mental health nursing module on attitudes toward mental illness

The results of the study showed that the students' perception of dangerousness changed positively after the mental health nursing module. However, there were no changes in the incurability and disturbance in interpersonal relationships and shame subscales. Stereotypes, prejudice, and discrimination are the three components of stigmatization. Stereotypes or negative beliefs are considered first in this process. Once these stereotypes are accepted as accurate, prejudice arises that results in the exhibition of negative emotional reactions, and ultimately, behavioral discrimination will occur (Corrigan & Rusch, 2002). Turkish society has mostly negative attitudes toward mental illness. The popular belief is that people with mental health problems are dangerous. Therefore, members of the public generally keep a social distance from these individuals (Çam & Bilge, 2013).

Studying stereotypes on a theoretical basis is important in the development of positive attitudes. However, it was emphasized that knowledge alone is inadequate in changing negative attitudes (Saillard, 2010). This study was conducted with students who were educated using the problem-based learning method. Several studies show that the negative attitudes of nursing students taking the PBL training changed positively after the mental health nursing course (Duman et al., 2017; Duman & Günüşen, 2017). The students in the school where this study was conducted learned only the schizophrenia module. In the first session of the module, when the concepts of “mental health”, and “normal” and “abnormal” behaviors were discussed, the tutors helped the nursing students to recognize their own perceptions toward mental illnesses, and at the end of the 1st session, the students accepted “stigmatization towards mental illnesses” as the learning theme. However, the discussion of the concept of stigmatization did not include any content or examples that students could be self-sufficient and independent. In addition, students' perceptions of psychiatric treatment outcomes were not studied. The theoretical content of module may have been inadequate to help the students change their belief of “incurability” at this point. However, the students' perceptions of dangerousness were discussed both in the sessions and in the communication laboratories, which was thought to affect the results regarding the perception of dangerousness.

The students' social distance scores decreased after the mental health nursing module. On the social distance scale, a paranoid schizophrenia case study was described, and to what extent people accepted this phenomenon in their social relationships was measured. In the communication laboratory, approaches to an aggressive patient or to an individual with delusions and hallucinations were discussed using role playing. In the process of role play, students were asked to imagine that they were in the same environment with such patients and to think about the effects of their reactions on patients; in addition, their appropriate communication approaches were discussed. These may have affected social distance positively. Similarly, it was reported that applications reflecting the characteristics of individuals with mental health impairments can help reduce students' fear and anxiety (Sarıkoç, Özcan, & Elçin, 2016). The study results suggest that theoretical content of the module should be restructured in order to help change students' negative beliefs toward mental illness. At this point, nurse educators should tackle stereotypes or negative beliefs toward people with mental illness, and try to change these beliefs by providing information and using effective teaching methods (e.g., watching videos, bringing together the students and the patients that live in society).

Table 4
Comparison of social distance scores before mental health nursing module, after module, after clinical practice and after stigma program (n: 64).

Scale	Pre-test[a] Mean ± SD	Post-test 1[b] Mean ± SD	Post-test 2[c] Mean ± SD	Post-test 3[d] Mean ± SD	χ^2 Friedman	p
Social distance scale	63.29 ± 13.74	45.65 ± 19.11	26.12 ± 9.88	23.53 ± 14.94	163.69	0.000

The effect of clinical practice on attitudes toward mental illness

The study showed that students' beliefs toward incurability and dangerousness changed positively, and the desire for social distance decreased after the clinical practice. These data indicate the importance of having practical experience after the theory, and studies aim for a positive change in nursing students' prejudices and attitudes after they complete their clinical practice (Chadwick & Porter, 2014; Ketola & Stein, 2013). Thus, contact with mentally ill individuals and education about mental illness are effective strategies in reducing stigma, particularly stigma related to social distance (Brown, Evans, Espenschade, & O'Connor, 2010; Griffiths, Carron-Arthur, Parsons, & Reid, 2014; Rüsch & Xu, 2016). A study conducted with nursing students showed that the students considered people with mental illness to be as normal as other people, both after the theory and clinical practice. This showed that contact with patients supported the theory that practical experience can reduce negative attitudes (McLaughlin, 1997). As with the findings of this study, Choi et al. (2016) reported that students considered individuals with mental problems to be less dangerous after completed their clinical practice. Therefore, clinical practice shows students that not all of the patients with mental illness are aggressive, and that they can become socialized.

The importance of a positive relationship with a patient has been addressed in the literature. Clinical environments are important in shaping this relationship and in the clinical process, supervisors are role models for students in teaching basic psychiatric nursing skills (Chan & Cheng, 2001). Therefore, students should be guided in establishing active communication with patients, identifying patients' problems, and involved in planning nursing care. Developing the ability to understand a person who experiences a mental health problem is one of the purposes of this active interaction. Furthermore, the sharing of patient experiences by students during reflections conducted after each practice could have helped to foster more positive attitudes. To conclude, students may change their negative beliefs when they build positive interaction with the patients although they are taught about patients and stigmatization in the classroom environment. In this sense, it is important to make the most of the clinical practice field, and to enrich the practice environment to include positive interactions that will reduce stigmatization.

The effect of the anti-stigma program on attitudes toward mental illness

This study concluded that the anti-stigma program positively supported the change in the incurability and disturbance in interpersonal relationships subscale, as well as in the dangerousness subscale, after students had their clinical practice. The stigma program further contributed to both the theory and clinical practice in changing the students' perception of dangerousness. Additionally, there was a decrease in the belief of the students for a need for social distance, after the practical experience. Similarly, anti-stigma programs were considered to have positive effects on attitudes (Bilge & Palabiyik, 2017; Oban & Küçük, 2011; Üçok et al., 2006;), and attitudes can be positively modified through education (Chan & Cheng, 2001). In this respect, the anti-stigma program has provided additional learning from students' theoretical studies, and different opportunities for students' self-expression. Trying to understand the experiences of an individual who has been stigmatized is another effective method of decreasing stigmatization (Stuart, Arboleda Florez, & Sartorius, 2012). Documentary films in the anti-stigma program that include segments on patients' lives have helped students understand patients' experiences. Positive patient examples in the documentary films, as well as in clinical practice, supported the change in perceptions of incurability and dangerousness. Similarly, a filmed contact intervention, which included segments on patients' lives, led to decreased social distancing and negative emotions (Brown et al., 2010). Additionally, contact with the Schizophrenia Solidarity Association gave students a chance to meet patients who live within society, understand that patients can live independently, and understand that they are not dangerous or incurable. In addition, recovery-oriented education and practices were revealed to be effective in reducing social distance (Moxham et al., 2016). All these opportunities could be effective in decreased social distancing.

In this study, no change was observed in the shame subscale of the belief scale after the students completed the mental health nursing module, clinical practice and anti-stigma program. The lowest and highest scores to be obtained from the shame subscale were 0 and 10, respectively (Bilge & Çam, 2008). The first and the following measurements indicated quite a low mean score for this subscale, which showed that a majority of students had positive beliefs concerning the shame subscale. Furthermore, the shame subscale was measured with two questions in the scale. The content of the questions was associated with an individual's feeling of shame after it was disclosed that a friend or family member had a mental disorder. The sense of shame was associated with avoidance. In stigmatization, society imposes a sense of shame on families who having a family member with a mental disorder. Therefore, family members who have a relative with a mental disorder may hide this situation from the rest of society because of feeling ashamed (Corrigan, Watson, & Miller, 2004). In this study, 6.3% of the sample population had a relative with a mental illness. Failure to change this perception could be related to life experiences.

Limitations

This study had some limitations. Firstly, the study had no comparison group. Secondly, the participants completed the same scales multiple times in a short time period. Lastly, this study had a small sample size and was conducted in a single nursing school (where the problem-based learning method was administered) in Turkey. Therefore, the results might not be generalized to all nursing students in Turkey.

Conclusions

The results of this study provided insights for improving the effectiveness of the mental health nursing course and anti-stigma program in improving attitudes toward mental illness, and reducing social distancing. The study findings showed that only the belief of dangerousness changed positively after the module, and that the clinical practice made a positive impact on the beliefs of both dangerousness and incurability and disturbance on interpersonal relationships. Lastly, the anti-stigma program supported the increase of positive attitudes after the mental health nursing module and clinical practice. Students' social distances with mentally ill people changed positively after the mental health nursing module, clinical practice, and anti-stigma program while there was no change in their shame beliefs. These findings guide educators about the theoretical content and practice of mental health nursing curriculum, and the aspects of the anti-stigma program that should be improved.

Implication for nursing education

The results of the study indicate that the theoretical content and teaching strategies need to be improved to change negative beliefs about mental illness. The theoretical content of mental health nursing curriculum should be structured for the purpose of replacing stereotypes or negative beliefs with accurate information and include all

domains of stigma. Since the incurability belief that was mentioned in the study is mainly related to recovery, the researcher recommends that the theoretical content emphasizes the recovery of mental illnesses, and that the curricula are structures with a focus on recovery. Similarly, it may also be helpful to add patient interaction to the theoretical content. In addition, nurse educators should be aware of the fact that knowledge alone may not be sufficient to change negative beliefs, and they should question students' negative beliefs. In the area of clinical practice, student stereotypes should be discussed based on the examples of inpatients with mental illness, and students should be supported in comprehending the underlying factors of patient behaviors. Furthermore, students' positive interactions with patients should be reinforced during clinical practice.

Since the anti-stigma program supports positive change in negative beliefs other than shame and social distance, we recommend that such programs be included in the standard mental health nursing course. However, the researcher recommends that discussion sessions to change shame belief are added to the content of the anti-stigma program, and students are taught a certain sensitivity in this dimension. It is also recommended to use public mental health services as implementation areas in addition to other organizations (e.g., the foundation) with the purpose of ensuring students' interaction with mentally ill patients living in the society.

Finally, the conduct of qualitative studies to explain nursing students' beliefs of shame regarding mentally ill patients may be a guide in structuring the curriculum. Furthermore, it is recommended that future studies should be designed longitudinally and should include control groups.

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