

Effects of the Psychiatric Nursing Course on Students' Attitudes Towards Mental Illnesses, Perceptions of Psychiatric Nursing and Career Choices

Psikiyatri Hemşireliği Dersinin Öğrencilerin Ruhsal Hastalıklara Yönelik Tutumlarına, Psikiyatri Hemşireliği Algılarına ve Kariyer Tercihlerine Etkisi

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ABSTRACT Objective: The purpose of this study was to determine the effects of psychiatric nursing course on students' attitudes towards mental illnesses, perceptions of psychiatric nursing and career choices. **Material and Methods:** The study was one-group pre-test post-test design. Measurements were repeated three times; before and after the theoretical course and after the clinical practice. The study was performed in the school of nursing. The study sample consisted of 74 third-year nursing students. For data collection, the Beliefs toward Mental Illness Scale, Psychiatric Nursing Perception Scale and career choices list were used. **Results:** It was determined that the students' negative attitudes towards mental illnesses and negative perceptions of psychiatric nursing decreased significantly after the course. Negative attitudes towards mental illness and perceptions of psychiatric nursing changed positively after the theoretical course and clinical practice. While the number of those who placed psychiatric among their first three career choices prior to the course was 21 (28.4%), it increased to 31 (41%) after the theoretical course and clinical measurements. **Conclusion:** In this study, it is concluded that psychiatric nursing curricula include topics and programs that will create awareness in students regarding stigmatization towards mental illnesses and its effects. It is recommended to conduct longitudinal studies investigating students' beliefs towards mental illnesses, perceptions of psychiatric nursing training, and career choices from the very first year of their nursing education.

Keywords: Attitude; career choice; students, nursing; problem-based learning; psychiatric nursing

ÖZET Amaç: Bu çalışmanın amacı psikiyatri hemşireliği dersinin hemşirelik öğrencilerinin ruhsal hastalıklara yönelik tutumlarına, ruh sağlığı hemşireliğini algılamalarına ve kariyer tercihlerine etkisini saptamaktır. **Gereç ve Yöntemler:** Araştırma tek grupta ön test-son test düzenindedir. Çalışmada teorik ders öncesi ve sonrası ile klinik uygulama sonrası olmak üzere üç ölçüm yapılmıştır. Çalışma hemşirelik okulunda yapıldı. Çalışmanın örneklemini 74 üçüncü sınıf hemşirelik öğrencisi oluşturdu. Veriler Ruhsal Hastalıklara Yönelik İnançlar Ölçeği, Psikiyatri Hemşireliğini Algılama Ölçeği ve Kariyer tercihleri listesi ile toplandı. **Bulgular:** Öğrencilerin teorik dersten sonra ruhsal hastalıklara ve psikiyatri hemşireliğine yönelik negatif tutumlarının anlamlı düzeyde azaldığı saptandı. Ruhsal hastalıklara yönelik tutumlar ve psikiyatri hemşireliğine yönelik algılarda teorik dersten ve klinik uygulamadan sonra olumlu yönde değişim olmuştur. Teorik derslerden önce psikiyatri hemşireliğini üçüncü sırada tercih eden öğrenciler 21 (%28,4)'lerdeyken teorik ders ve klinik uygulama sonrası ölçümlerde 31 (%41) oranında arttı. **Sonuç:** Bu çalışmada psikiyatri hemşireliği müfredatında ruhsal hastalıklara yönelik damgalama ve etkilerine ilişkin öğrencilerde farkındalık yaratacak konular ve programların olmasının etkili olduğu görülmüştür. Hemşirelik eğitiminin ilk yılından itibaren öğrencilerin ruhsal hastalıklara yönelik inançlarını, psikiyatri hemşireliği algılarını ve kariyer tercihlerini inceleyen uzun dönemli çalışmaların yapılması önerilir.

Anahtar Kelimeler: Tutum; kariyer seçimi; öğrenciler, hemşirelik; problem temelli öğrenme; psikiyatri hemşireliği

Nursing students consistently report little interest in psychiatric nursing as a career choice.¹⁻³ A systematic review demonstrated that students preferred psychiatric nursing as a career as the last career choice for the students.⁴ Factors contributing to this situation have been identified as negative attitudes towards people with mental illnesses negative experiences students had in psychiatric clinics, stigma and fear in trainers and nurses regarding psychiatric patients.¹⁻⁸ In the literature, there are studies reporting that the view that individuals with mental illness are dangerous and unpredictable is widespread in the general population.^{9,10} It has been shown that many mental health professionals display more negative attitudes towards people with mental illnesses than do other people in a community.¹¹ The prevalence of negative attitude towards people with mental illnesses among health care professionals and other people in a community can affect health students (nursing, medicine, social worker) at least in the beginning, if not always.^{6,11-13}

Students are mostly willing to work in internal medicine and surgery in which they can use the latest technological developments.³ In a study conducted in Turkey, it was determined that the students did not want to work as mental health nurses after graduation.¹ In a study conducted with first-year nursing students, it was found that the students did not choose psychiatric nursing as a career due to their negative attitudes towards mental illnesses. Therefore, it is important to emphasize positive attitudes towards psychiatric nursing during the nursing education process; otherwise, mental health institutions risk losing good nurses.¹⁴ Students' career choices have a negative impact on the future of psychiatric nursing, and thus, it is argued that psychiatric nursing is increasingly facing the danger of extinction.^{15,16}

Strengthening positive attitudes towards mental health in nursing education may contribute to the retention of nurses in this field.^{4,8} It has been reported that exposure to theory and clinical experience in psychiatric nursing affect attitudes towards psychiatric patients positively, contribute to their career choices and increase their interest in

mental health.^{11,17,18} In another study, it was determined that final-year nursing students who took the mental health and psychiatric-nursing course displayed more positive attitudes towards psychiatric patients and mental diseases, that they comprehended the role of a psychiatric nurse adequately at the end of the training process, but that they did not want to work in psychiatric clinics because they were not able to observe the roles of psychiatric nursing during clinical practices.¹⁷ In another similar study, while half of the students completed a study unit on psychiatric nursing, the other half of the students (control group) completed a study unit on long-term illness. Measurements made after the clinical placement demonstrated that while the students in the psychiatric nursing unit preferred psychiatric nursing as a career choice more, there was not such a change in the control group students' preferences. The reason for the lack of change in the long-term illness group was explained with the fact that these students continued to hold their stereotypes about psychiatric patients and to have negative perspectives of psychiatric nursing, because they did not take the mental health and psychiatric-nursing course.¹⁹ In a recently conducted systematic review, it has been reported that as the time spent by nursing students on the theory and practice of psychiatric increases, so does their interest in this area, which improves their attitude towards psychiatric.⁴

In a study conducted with health science students, the students' attitudes towards mental illnesses in general and towards specific mental illnesses after their mental health training and clinical psychiatric practices were investigated. Attitudes towards mental illnesses changed especially after clinical experience. For instance, there was reduction in overall stigma around mental health patients; however, attitudes towards specific mental illnesses did not change.²⁰ In a study that examined the effects of training on nursing students' attitudes towards schizophrenia, fourth-year students who received training in psychiatric were compared with second- and third- year students who did not. While no differences were observed between the two groups in terms of understanding

schizophrenia, there was improvement in the attitude of those who received psychiatric training.²¹ A one-day pilot study was conducted with medical school students on reducing their stigmatizing beliefs about schizophrenic patients. Compared to the control group students, the medical school students participating in the stigma reduction program showed a significant decrease in the false beliefs related to schizophrenia and in the negative ideas regarding schizophrenic patients.²²

Programs that aim to increase knowledge about mental illnesses and improve patient-provider relationships for students and professionals in the healthcare field are being carried out. The problem-based learning (PBL) method plays an effective role in the development of positive attitudes towards psychiatric nursing and mental illness.^{1,23} In the PBL method, students work in small or large groups and take responsibility for their own learning. Since the PBL training material (e.g. scenarios) provided to students is associated with and directly applicable to clinical implementations, the students' motivation to learn is high.^{23,24}

The results on students' perceptions of mental health and psychiatric nursing and their career choices have usually been obtained from studies conducted in countries like Australia, USA and England. Mental health and psychiatric nursing education shows variations between countries.^{16,25} Mental health and psychiatric nursing was first included in undergraduate education programs in Turkey in 1964. After the start of academic nursing and increases in the number of academic staff in nursing, nursing education started to include psychiatric nursing concepts and information rather than medical information.^{1,26} There are differences between nursing schools in terms of the implementation of psychiatric nursing theory and practices. In Turkey, psychiatric nursing courses, time allocated to the theoretical training varies from 50 to 70 hours and to practical training from 80 to 280 hours. In nursing schools in Turkey, mental health and psychiatric nursing courses and clinical practices are usually in the 3rd or 4th year of their education.²⁶

With the increases in the number of psychiatric clinical nurse specialists in recent years, there have been developments in the implementation of psychiatric nursing practices in Turkey. By 2011, in Turkey, there were only 350 psychiatric nurses with master's degrees. However, the majority of the aforementioned mental health and psychiatric nurses work as academicians in schools and psychiatric clinics of university hospitals.¹ Therefore, in nursing education, interest in mental health and psychiatric nursing should be encouraged.

The results of this present study conducted in a school in Turkey where a different education model is implemented are thought to shed light on the planning of the mental health and psychiatric nursing training. In this study, the psychiatric nursing course was carried out using the PBL method. Nurse educators and clinical instructors can help students to develop positive attitudes towards psychiatric nursing and can influence their career choices. Student nurses' choosing psychiatric nursing as a career and developing positive attitudes towards mental illness are of great importance for the future of mental health and psychiatric nursing and for patients to receive the care they deserve.

Therefore, the aims of this study were to determine the effects of mental health course and practices of psychiatric nursing on students' attitudes towards mental illnesses, perceptions of psychiatric nursing and career choices in a nursing school in Turkey.

Hypotheses of the study:

H₁: There are decreases in students' negative attitudes towards mental illnesses before and after the mental health and psychiatric nursing course, and after the clinical placement experience.

H₂: There are increases in students' positive perceptions of mental health and psychiatric nursing before and after the mental health course, and after the clinical placement experience.

H₃: There are increases in students' career choices before and after the mental health and psychiatric nursing course, and after the clinical placement experience.

MATERIAL AND METHODS

STUDY DESIGN, SETTINGS AND PARTICIPANTS

This one-group pre-test post-test study took place at a nursing school located in Western Turkey. In the nursing school where the study was conducted, education is four years. This study performed with nursing students in 2011–2012 academic year spring semester. In the nursing school, the PBL method had been implemented for 15 years. The sample used in this study was a convenience sample. Of the 99 third year students enrolled at a nursing school where the education was provided through the PBL method, 74 accepted to participate in the study. The response rate was 74.7%.

COURSE OUTLINE AND CLINICAL PRACTICE

The spring semester of the education program contained a course on mental health and mental health and psychiatric nursing. The students were informed about the study and were told how to complete the data collection forms used in the study. The forms were administered and filled in before the courses began. The course was conducted with seven groups including 13-15 people under the guidance of tutors. The duration of the sessions on theory was 17 hours. While fourteen hours of the theoretical course was given in small groups, three hours of it was given in large groups. Students were given a scenario including the problem and were expected to specify and obtain the information they needed to solve the problem. Finally, they were asked to solve the problem by themselves. In the first and second sessions, a woman diagnosed with schizophrenia, suffering delusions and hallucinations, and reality testing deficits was admitted to the psychiatric clinic upon her father's request. In these sessions, the students identified learning issues related to delusions, hallucinations and other symptoms in patients with schizophrenia, the etiology of schizophrenia, and effects of schizophrenia symptoms on everyday life by developing a hypothesis about the symptoms of delusions and hallucinations. In addition, mental health, normal and abnormal behaviors, psychiatric-related legal and ethical issues of forced hospitalization were

discussed. In the 3rd and 4th sessions, the scenario included the following topics: the treatment of the patient at home is impossible to continue, the patient can not go out in public, difficulties experienced by her father and the other members of the family, stigma, the father gets in contact with the Schizophrenia Solidarity Association. The students identified learning issues such as drug treatment, medication adherence in patients with schizophrenia psychosocial treatments, the difficulties faced by families, family burden, stigma of chronic psychiatric patients, attitudes and beliefs toward mental illnesses, the concepts of suicide and loneliness, nursing interventions for patients with schizophrenia, how the therapeutic environment for clinical psychiatric inpatients should be, approaches to patients with delusions and hallucinations, and approaches to aggressive patients, interviews with psychiatric patients, discharge training of the patient and family. In the next session, they discussed the learning issues identified.

In the last sessions of the course attitudes and perceptions toward mental illnesses were discussed with a larger number of students. In addition, in the last session of the course, students watched the documentary entitled “we, you, they”, which was about the impact of the stigma of mental illnesses on patients. Also an academician specialized in psychiatric nursing helped the students to recognize their own perceptions of stigma and to discuss the reasons leading to these perceptions. In this method, the teacher is not in the active position, but in the role of a facilitator. The student is placed at the center of the process.

Students received a five-hour lecture on legal issues, drug treatment in psychiatric, and interviews with psychiatric patients. During the course, students had a four-hour communication laboratory on the approach to a person having delusions, hallucinations and aggressive behavior. After the theoretical course, the data collection forms were administered again.

The duration of the clinical practice was 96 hours. While forty-eight hours of the clinical practice were spent in psychiatric clinics, the remaining

forty-eight hours were devoted to nursing homes, the Schizophrenia Solidarity Association and other clinics (plastic surgery, urology, cardiology and oncology). Because the number of students was high and the number of psychiatric clinics was inadequate, each group of the students attended the psychiatric clinic for five days, and the Schizophrenia Solidarity Association for one day. Then they completed their practices in one of the other clinics. Before the clinical experience, a meeting was held with students where the objectives of the clinical practices and the features of psychiatric clinics were discussed. In the school where the study was conducted, the students worked in the clinic under the supervision of nurse teachers and observed the nurses working in the clinic. Each student took responsibility for the care of one or two patients hospitalized in the psychiatric clinic. The students collected data by conducting purposeful interviews with the patients and observing them. Then they performed the nursing diagnosis, planned necessary interventions and finally carried out the nursing process through practice and assessment. In addition, the students observed all the activities and routines carried out by clinical nurses and other team members. During the reflection session, clinical experiences of the students and the situations that most affected them were discussed. The data collection forms used in this study were administered on the last day of clinical placements.

INSTRUMENTS

Students Information Form

This questionnaire included items questioning the participants' age, gender and whether they have family members or friends with psychiatric disorders.

Beliefs Toward Mental Illness Scale (BMI)

The scale was developed by Hirai and Clum (2000) in order to determine the positive and negative beliefs of individuals with different cultural characteristics regarding mental illnesses. The scale has the following three subscales: dangerousness, poor social and interpersonal skills, and incurability. The dangerousness subscale of this scale measures the

perceptions of danger posed by individuals with mental illnesses to society and environment. The poor social and interpersonal skills subscale includes items on how mental illnesses affect interpersonal relationships. The incurability subscale of this scale measures the challenges regarding the treatment and care. It has 21 items rated on a six-point Likert scale.²⁷ The validity and reliability of the Turkish version of the scale was achieved by Bilge and Çam (2008).²⁸

In line with the factor analysis, some items in the "Poor Social and Interpersonal Skills" and "incurability" subscales were combined to form a single subscale, which is different from the original scale. Three items included in the "Poor Social and Interpersonal Skills" subscale of the original scale were included in another subscale called "Shame". The items in the shame subscale question the shame felt by the friends and family of an individual having a mental illness. The "Dangerousness" subscale was the same as the "Dangerousness" subscale in the original scale. When the scale was adapted to Turkish society, Cronbach's alpha coefficient was determined to be 0.82. While the highest score obtained from the scale was "105", the lowest was "0". The scale is interpreted in terms of both total score and subscale scores. High scores indicate negative beliefs.²⁸ In this study, Cronbach's alpha was 0.93.

Psychiatric Nursing Perception Scale (PNPS)

The scale was developed by Çam and Arabacı (2009) in order to determine student nurses' perceptions of psychiatric nursing.²⁹ When the scale was developed, it was based on the items regarding psychiatric nursing in the "Student Nurses' Attitudes to Psychiatric Nursing and Mental Disorder" scale prepared by Surgenor, Dunn and Horn (2005).³⁰ The scale was aimed at determining attitudes towards psychiatric nursing and psychiatric disorders and included 20 items. Cronbach's alpha of their scale was .80.³⁰ While developing the Psychiatric Nursing Perception Scale, the researchers utilized both the items related to the perception of psychiatric nursing in Surgenor et al.'s (2005) scale and the review of the pertinent literature. The scale

consists of 14 items and is a six-point Likert type scale. The scale is a 6-point Likert-type scale, ranging from 0 to 5. In line with the factor analysis conducted, the scale was found to be composed of two sub-dimensions: “negative opinions” and “positive opinions”. Its Cronbach’s alpha correlation coefficient was 0.76. While the highest score possible from the scale is “70”, the possible lowest score is “0”. High scores indicate positive opinions on psychiatric nursing.²⁹ In this study, Cronbach’s alpha was found as 0.67.

CAREER CHOICES

The students were given a list of subject areas and asked to sort them out by placing the one they wanted to work in most at the top. Of these areas, the ones preferred by the students most were taken into account.

DATA ANALYSIS

Data were analyzed using Statistical Package for the Social Sciences software version 16.0 (SPSS, Inc., Chicago, IL, USA). A test of hypothesis with p -value < 0.05 was considered as significant. In order to compare the differences observed in the students’ attitudes towards mental illnesses and perceptions of psychiatric nursing before and after the mental health course, and after clinical experiences, repeated-measures analysis of variance. Because there were three measurements in this study, when the difference was statistically significant difference, to determine the group the difference stemmed from, the paired t -test with Bonferroni corrections were used. Students’ choosing psychi-

atric nursing as a career was assessed with numbers and percentages.

ETHICAL CONSIDERATIONS

Permissions required for the study were obtained from the relevant institution and the local ethical committee. Oral and written consents were obtained from students who participated in the study.

RESULTS

The students’ mean age was determined as 22.22 ± 1.59 years. A majority of the students were female (79.7%). Of the students, 17.6% had a family member or members with a mental illness and 29.7% had friends or acquaintances with a mental illness.

The scores obtained by the students from the Beliefs toward Mental Illness Scale (BMI) were evaluated. As a result of the analysis, statistically significant differences were determined in all the dimensions of the scale (Poor social and interpersonal skills: $F: 9.07$, $p: 0.001$; Dangerousness: $F: 68.02$, $p: 0.001$; Shame: $F: 9.51$, $p: 0.001$, Total Score: $F: 32.45$, $p: 0.001$). It was found that the difference resulted from the scores obtained before the course. Also, the scores obtained after the theoretical course and clinical experiences were significantly lower than the scores obtained before the course. When the scale assessment is taken into consideration, high scores indicate an increase in negative attitudes, while low scores indicate a decrease in negative attitudes. After the theoretical course in this study, a reduction was determined in negative beliefs about mental illnesses (Table 1).

TABLE 1: Comparisons of Beliefs toward Mental Illness Scale (BMI) scores before and after the theoretical course, and after the clinical practices (n = 74).

Subscales	Before the theoretical course	After the theoretical course	After the clinical practices	F	p
Poor social and interpersonal skills	25.20±9.19	21.01±8.06	20.70±9.21	9.07	0.001*
Dangerousness	23.21±5.42	16.54±6.24	15.66±4.85	68.02	0.001*
Incurability	1.20±0.16	0.60±.012	0.77±0.11	9.51	0.001*
Total score	49.62±1.61	38.16±1.55	37.13± 1.54	32.45	0.001*

* Bonferroni correction applied for multiple t tests sets alpha for significance level at <.008.

Abbreviations: F: Analysis of variance.

The scores obtained by the students from the Psychiatric Nursing Perception Scale (PNPS) were evaluated. It was found that the difference resulted from the scores obtained before the course (Positive attitudes: $F: 9.07$, $p: 0.027$, Negative attitudes $F: 453.81$, $p: 0.001$, Total Score: $F: 341.71$, $p: 0.001$). When the assessment of the scale was taken into consideration, the increase in scores obtained from the negative opinions subscale indicated that negative attitudes decreased, while the increase in scores obtained from the positive opinions subscale indicated that positive attitudes increased. These results indicate that of the attitudes towards psychiatric nursing, negative ones decrease and positive ones increase after theoretical courses, and clinical placements (Table 2).

The number of those who placed psychiatric among their first three choices prior to the course was 21(28.4%); however, the number increased to 31(41%) at the second and third measurements (Table 3).

DISCUSSION

As a result of this study, it was observed that the theoretical course helped the students develop positive attitudes toward mental illnesses and perceptions of psychiatric health nursing. Positive changes that developed after the theoretical course continued after the clinical experience; however, no differences were determined between the scores obtained after the theoretical course and those obtained after clinical experience.

In this study, very positive changes were noted in the subscales and in the total score of the Beliefs toward Mental Illness Scale, especially in the period after the course. It can be inferred that the theoretical content of the course addressed the students' concerns regarding mental illnesses and the PBL method had a positive effect on the students' perceptions of mental health care. In a study conducted with medical students and students getting prepared for university entrance exams, the

TABLE 2: Comparison of Psychiatric Nursing Perception Scale (PNPS) scores before and after the theoretical course, and after the clinical practices (n = 74).

Subscales	Before the theoretical course	After the theoretical course	After the clinical practices	F	p
Positive attitudes	20.18±0.48	23.10±0.56	23.41±0.56	9.07	0.027*
Negative attitudes	6.91±0.54	29.82±0.50	30.31±0.44	453.81	0.001*
Total score	29.24±0.46	52.93±0.91	53.60± 0.82	341.71	0.001*

* Bonferroni correction applied for multiple t tests sets alpha for significance level at <.008.

Abbreviations: F: Analysis of variance.

TABLE 3: The students' career choices regarding psychiatric nursing before and after the theoretical course, and after the clinical practices (n = 74).

Order of Choice	Before the theoretical course		After the theoretical course		After the clinical practices	
	Number	%	Number	%	Number	%
1 st choice	6	8.1	8	10.8	7	9.5
2 nd choice	5	6.8	9	12.2	12	16.2
3 rd choice	10	13.5	14	18.9	12	16.2
4 th choice	6	8.1	9	12.2	8	10.8
5 th choice	9	12.2	6	8.1	9	12.2
6 th choice	15	20.3	8	10.8	10	13.5
7 th choice	12	16.2	10	13.5	6	8.1
8 th choice	11	14.9	10	13.5	10	13.5

students' positive attitudes towards mental illness decreased significantly after they were told that patients had schizophrenia. In terms of their approaches to mental illnesses, no significant difference was detected between the medical students and the students preparing to enter university.³¹ A study conducted with the 2nd and 3rd year nursing students found that longer theoretical studies and clinical experience related to mental illnesses contributed to the development of positive attitudes towards mental illnesses.³² In other study, attitudes towards people experiencing a mental illness and psychiatric nursing profession before and after the clinical experience were compared, it was determined that their attitudes were positively affected after the clinical experience.³³

It was observed that students' perceptions of psychiatric nursing changed for the better after the course. At the end of the mental health course and clinical experience, there were positive changes in students' career choices. It was also observed that students preferred psychiatric nursing as a career more after the theoretical course and clinical experience. Students' career choices and positive perceptions of psychiatric nursing cannot be dissociated from each other. There are a limited number of studies indicating that the psychiatric nursing education and practices can improve opinions regarding psychiatric nursing. A study in which the career choices of students taking the course in psychiatric nursing were observed that the popularity of psychiatric nursing significantly increased among the students after the course.³⁴ In a study in which students' attitudes towards psychiatric nursing before and after the theoretical course and clinical experience were compared, it was determined that their attitudes were positively affected after the theoretical course.²⁵ In another study it was found that the positive development in the students' knowledge, skills and attitudes towards psychiatric nursing assessed after the training was higher than that assessed before the training and after the clinical experience.³⁵ It has been reported that as the time spent by nursing students on the theory and practice of psychiatric increases, their attitudes towards mental illnesses are

affected positively.⁴ However, in our study, the change was observed especially after the theoretical course. In the PBL method, scenarios portraying real life events were prepared in line with the concepts and objectives stated in the curriculum, and these scenarios were discussed in small groups. The course program was supported with communication laboratories and presentations from faculty members specialized in their fields. Therefore, all these methods could increase the students' motivation to work in related clinics and areas. In another study, the students' career choices regarding psychiatric nursing were compared and it was found that those who learned psychiatric nursing theory and practices with the PBL method preferred psychiatric nursing as a career more than those who learned them with the classical methods, and the difference was significantly high. Researchers have indicated that PBL is an education method that can affect the development of positive attitudes.¹¹ In a study conducted in three different nursing schools, it was observed that the nursing students' perceptions of psychiatric nursing and their attitudes towards mental illnesses in the school following the PBL method were better than were those of the students attending schools with classical education methods.¹

Although there was a positive change in the students' perception of psychiatric nursing after the clinical experience this result was not statistically significant. As described in the methods section, this might be due to the excess of number of the students, the smaller number of the psychiatric clinics and insufficient time students spent in psychiatric clinics. Another important cause might be the fact that the number of nurses specialized in psychiatric nursing is insufficient in Turkey and that psychiatric nursing models the students observed in the courses were different from those they observed in psychiatric clinics.^{1,17} In a systematic review, it was reported that the students' perception of mental health and psychiatric nursing was affected both by the duration of experiences in psychiatric clinics and by the role models students encountered in the clinical setting.⁴

Since the study was conducted only in one nursing school and particularly with the students

receiving their education with the PBL method, the results cannot be generalized. The study is a cross-sectional one; therefore, it does not give any idea about the long-term impact of the training and practices provided to the students. Because of the high number of students, the students attended the general clinics and nursing homes on a rotational basis, and thus the time they spent in psychiatric clinics was shortened. That the students participated in clinical practices in clinics other than the psychiatric clinic and that the time spent in the psychiatric clinic was short were thought to adversely affect the results of this study. The students' attending general clinics and nursing homes on a rotational basis is thought to affect the results of the measurements negatively, which was considered to be a major limitation of this study. Students' having to make their career choices without receiving training on the practices of public-health nursing, and on the theory and practices of pediatrics is another limitation of the study.

CONCLUSION

At the end of this study, it was determined that the students' attitudes towards mental illnesses and perceptions of psychiatric nursing changed positively, and that these changes occurred especially after the theoretical course. These positive attitudes continued after the clinical experience; however, no differences were determined between the scores obtained after the theoretical course and those obtained after clinical experience. In order to determine the effects of PBL better, a comparative study needs to be carried out between a nursing school

that educates through the classical method and another that follows the PBL method. To determine the long-term effects, it is important to longitudinally investigate the students' attitudes towards mental illnesses, perceptions of psychiatric nursing and career choices starting from the first year. Nurse educators and administrators can take into consideration the benefits of the PBL method in their curriculum studies due to its positive effects on attitudes towards the perceptions of psychiatric nursing and mental illnesses.

In order to enable students to spend more time in psychiatric clinics, it is important to make the necessary arrangements. In addition, service models in which theoretical and practical trainings are given together should be developed so that students can have the opportunity to observe how their theoretical knowledge of psychiatric nursing is practiced in environments providing mental health services.

Conflict of Interest

Authors declared no conflict of interest or financial support.

Authorship Contributions

Idea/Concept: Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **Design:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **Control/Supervision:** Zekiye Çetinkaya Duman; **Data Collection and/or Processing:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **Analysis and/or Interpretation:** Neslihan Partlak Günüşen; **Literature Review:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **Writing the Article:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **Critical Review:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen; **References and Fundings:** Zekiye Çetinkaya Duman, Neslihan Partlak Günüşen.

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