

Araştırma / Original article**Effect of aggression management training program on knowledge and attitudes of nurses working at psychiatric clinics**Sibel ÇOBAN ARGUVANLI,¹ Nimet KARATAŞ,² Mürüvvet BAŞER,³ Gökmen ZARARSIZ⁴**ABSTRACT**

Objective: The purpose of this study was to determine the effect of Aggression Management Training Program (AMTP) on knowledge levels and aggression perceptions of nurses working at psychiatric inpatient clinics in Kayseri/Turkey. **Methods:** This study was conducted with 27 nurses who participated to the AMTP as the one group pretest-posttest experimental design. Data were collected by using Personal Information Form, Perception of Aggression Scale, and Assessment Form of Knowledge Levels of Nurses Regarding Aggression Management. AMTP was carried out interactively with totally 3 groups including 2 groups (10 participants in each group) and 1 group of 7 participants. Knowledge levels and perceptions of aggression of nurses were evaluated before, after and three months after AMTP. **Results:** In this study, AMTP was found to increase knowledge level of nurses and led to positive changes at their aggression perceptions. **Conclusion:** Consequently, it was determined that AMTP increased knowledge levels of nurses working at psychiatric clinics and provided positive changes at their aggression perceptions. It could be recommended to continue training on aggression management with regular intervals. (*Anatolian Journal of Psychiatry* 2015; 16(5):323-328)

Key words: aggression management, nurse, training

Agresyon yönetimi eğitim programının psikiyatri kliniklerinde çalışan hemşirelerin bilgi ve tutumlarına etkisi**ÖZET**

Amaç: Bu çalışmanın amacı, Agresyon Yönetimi Eğitim Programının (AYEP) Kayseri'de psikiyatri kliniklerinde çalışan hemşirelerin bilgi düzeyleri ve agresyon algıları üzerine etkisini belirlemektir. **Yöntem:** Bu araştırma AYEP'e katılan 27 hemşire ile tek grup ön test-son test deneysel desende gerçekleştirilmiştir. Veriler Kişisel Bilgi Formu, Agresyon Algılamaları Ölçeği, Hemşirelerin Agresyon Yönetimi Konusunda Bilgi Düzeylerini Değerlendirme Formu ile toplanmıştır. AYEP interaktif şekilde 10'ar kişilik iki grup, yedi kişilik bir grup olmak üzere üç grup halinde gerçekleştirilmiştir. Eğitimden önce, sonra ve üç ay sonra hemşirelerin bilgi düzeyleri ve agresyon algıları değerlendirilmiştir. **Bulgular:** Bu çalışmada, AYEP'in hemşirelerin bilgi düzeyini arttırdığı ve agresyon algılamalarında istatistiksel olarak anlamlı değişikliklere yol açtığı bulunmuştur. **Sonuç:** Sonuç olarak, AYEP'in psikiyatri kliniklerinde çalışan hemşirelerin bilgi düzeyini artırdığı, agresyon algılamalarında olumlu değişiklikler sağladığı görülmüştür. Agresyon yönetimi konusunda verilen eğitime düzenli aralıklarla devam edilmesi önerilebilir. (*Anadolu Psikiyatri Derg* 2015; 16(5):323-328)

Anahtar sözcükler: Agresyon yönetimi, hemşire, eğitim

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INTRODUCTION

Negative outcomes of aggression and violence are important problems that affect the health and safety of both patients and psychiatric hospital staff.¹ Exposure to aggression causes physical and emotional effects² as well as negative effects upon job motivation.³

Although aggression management training programs are considered as a right method for those who work at psychiatric clinics to cope with patient aggression,⁴ it is noted in the studies conducted both in Turkey and in the world that the majority of the nurses who work at psychiatric clinics have not been trained about aggression management.⁵⁻⁷ Not only knowledge level of the nurses but also their attitudes are effective in coping with the aggressive behaviors of the patients and in determining interventions such as patient interactions and patient treatments.¹⁸ However, it has been reported in studies conducted with nurses that nurses have adopted a negative attitude towards aggression.^{6,9}

Aggression management trainings not only increase knowledge level of the nurses regarding basic issues in aggression management but also result in changes in their attitudes towards aggression. These trainings are effective in improving methods to cope with aggression, aggression prevention, and risk evaluation.¹⁰⁻¹¹

In Turkey, various activities and practices have been started for patient safety. Yet, it may be argued that these activities at psychiatric clinics are not enough. Uncommon use of the aggression management protocols at psychiatric clinics for safety of patients and workers, negative attitudes towards aggression or not knowing these negative attitudes nationwide, unsystematic use of the knowledge and the practices have proved that the number of the relevant studies is limited and insufficient.

Therefore, since there has been no study conducted on this subject in Turkey and it is thought that this study may be a basis for the future studies on aggression management, it is necessary to carry out this study.

The purpose of this study was to determine the effect of Aggression Management Training Program (AMTP) on knowledge and perceptions of nurses working at psychiatric inpatient clinics in Kayseri, Turkey.

METHODS

The study was conducted with a one-group
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pretest-posttest experimental design in order to assess the effect of AMTP on knowledge and perceptions of nurses working at psychiatric inpatient clinics in Kayseri, Turkey. The study was conducted at psychiatric clinics of two different hospitals located in Kayseri Province in Turkey. Of 28 nurses who worked at above-mentioned clinics, 27 nurses participated in the study. The study was conducted between March 2011 and June 2011.

Instruments

Personal Information Form: The form involved 19 questions about the variables related to nurses' age, educational status, professional features and verbal and physical aggression experiences.

Perception of Aggression Scale (POAS): This is a self-administered scale of 29 items consisting of two sub-groups that were developed by Jansen et al.,¹² adapted into Turkish and psychometrically standardized by Bilgin et al.¹³ Each item provides a statement about aggression to which nurses are asked to rate their degree of approval from 'strongly agree' to 'strongly disagree' via a five-point Likert scale. While some persons find aggression functional, accepted behavior, and an opportunity for patient care (e.g., 'Aggression is a form of communication and is not destructive for this reason'), other people find aggression to be dysfunctional, unacceptable, and useless in terms of patient care (e.g., 'It is an unwanted behavior because of being destructive'). The total scores of all items divided by the number of items in the subgroups yield the total score for the subgroups. On the Turkish version of the scale, it was reported that an alpha reliability coefficient of 0.85 was 'functional' and 0.81 was 'dysfunctional'.¹³

Assessment Form of Knowledge Levels of Nurses Regarding Aggression Management:

The form designed by the researcher was used to find out whether there was a difference between knowledge levels of the nurses before, after, and three months after AMTP. The form included 10 questions with five options. The correct answers to the questions on this form were 10 points. This form received minimum 0 and maximum 100 points.

Intervention

Pre-training phase: During the pre-training phase, all of the participant nurses filled in Personal Information Form, POAS, and Assessment Form of Knowledge Levels of Nurses Regarding Aggression Management before AMTP.

Training phase: AMTP was offered for two groups of 10 participants and one group of 7 participants. The training lasted for two days and narration technique, question-answer technique, case-study, and role playing techniques were used. The following areas were included in AMTP:

- Definitions of aggression and types of aggression,
- Nature and prevalence of aggression,
- Psychiatric disease and aggression,
- Characteristics of the individual with aggressive behavior,
- Theories explaining the etiology of the aggression,
- Phases of aggression,
- Communication with the individual with aggressive behavior,
- Approach to the patient with aggression,
- Nursing care plans,
- Aggression and nursing.

Post-training phase: During the post-training phase (after and three months after AMTP), the participants filled in POAS and Assessment Form of Knowledge Levels of Nurses Regarding Aggression Management in order to assess the effect of AMTP.

Data analysis

Shapiro-Wilk's test was used and histogram and q-q plots were drawn to assess the data normality. Levene test was used to test variance homogeneity. A two-sided dependent and independent samples t tests, one-way analysis of variance, one-way repeated measures analysis of variance, and Cochran's Q test were used for data comparisons. Data values were expressed as frequencies, percentages, and mean±standard deviation. Data analysis were conducted by using SPSS 15.0 (Statistical Package for Social Sciences) and $p < 0.05$ value was considered as statistically significant.

Procedure and ethical considerations

Ethical approval was received from the ethics committee of Faculty of Medicine of Erciyes University (2010/44). Also, written official permissions were obtained from the Directorate of the Hospitals, where the study was conducted, and from Provincial Directorate of Health of Kayseri. All nurses were informed about the purpose the study and their oral and written informed consents were obtained.

RESULTS

Demographics

Of the participant nurses, 77.8% were female, their mean age was 33.2 ± 5.4 years (ranging from 22 to 47 years), 40.7% graduated from vocational health school and 85.2% were nurse practitioner at the hospital. Of the nurses 51.9% had ≥ 10 years' work-time, and 40.7% had a work-time of 2-5 years at the psychiatric clinics.

Aggression experiences of nurses

It was found out that at the working-settings, 74.1% were exposed to verbal aggression; whereas, 29.6% were exposed to physical aggression. 70.0% of those exposed to verbal aggression underwent verbal aggression many times; on the other hand, 87.5% of those exposed to physical aggression underwent physical aggression for a few times. 59.3% of the nurses intervened aggression at the working-settings and they received the biggest support from their colleagues. It was reported by the participants that 96.3% did not get any training about aggression management and 66.7% told that they needed information in the care of the aggressive patients and 72.2% of those needing information explained that they needed help regarding dealing with the patient.

Post-intervention effects

It was found out that mean score of nurses' answers given to the questions in the Assessment Form of Knowledge Levels of Nurses Regarding Aggression Management was 40.7 ± 18.2 before AMTP; whereas their mean score was 75.2 ± 22.4 after AMTP and 68.1 ± 24.0 three months after AMTP. While the difference between the means was statistically significant in pre-training and post-training ($p < 0.001$) phases, the difference between the means was not statistically significant in post-training and after-three-month periods ($p > 0.05$) (Table 1).

According to POAS, it was found out that mean functional reaction scores of the nurses were 2.9 ± 0.4 before AMTP, 3.1 ± 0.6 after AMTP and 3.5 ± 0.5 three months after AMTP and the increase in mean functional reaction scores of the nurses was statistically significant ($p < 0.001$).

Mean dysfunctional reaction scores of the nurses were 3.6 ± 0.5 before AMTP, 3.5 ± 0.6 after AMTP and 3.2 ± 0.5 three months after AMTP and the decrease in mean functional reaction scores of the nurses was statistically significant ($p < 0.001$) (Table2).

Table 1. Knowledge change before, after and three months after AMTP (n=27)

Pre-training Mean±SD	Aggression management knowledge	
	Post-training Mean±SD	Three months after the training Mean±SD
40.7±18.2 ^a	75.2±22 ^b	68.1±24.0 ^c

^{a, b}: The difference between the groups was statistically significant ($p < 0.001$).

^{a, c}: The difference between the groups was statistically significant ($p < 0.001$).

^{b, c}: The difference between the groups was not statistically significant ($p > 0.05$).

Table 2. Aggression perception change before, after and three months after AMTP (n=27)

Perception of Aggression Scale, subscales	Aggression perceptions			p
	Pre-training Mean±SD	Post-training Mean±SD	Three months after the training Mean±SD	
Functional reaction (acceptable)	2.9±0.4 ^a	3.1±0.6 ^a	3.5±0.5 ^b	<0.001
Dysfunctional reaction (undesirable)	3.6±0.5 ^a	3.5±0.6 ^a	3.2±0.5 ^b	<0.001
p	<0.001	0.007	0.078	

^{a, b}: Different letters in upper indexes showed the difference between the groups, same letters showed the similarity between the groups. Powers of the performed tests were 99.8% and 82.8% for time comparisons respectively.

DISCUSSION

Training courses about aggression management are indicated as an appropriate method for coping with patient aggression and ensuring patient and worker safety at psychiatric clinics. Yet, the relevant literature points out low rates of aggression management trainings received by nurses who work at psychiatric hospitals and general hospitals.⁵⁻⁷ The study conducted internationally by Poster¹⁴ reported that 45% of the Canadian psychiatric nurses did not receive any training about aggression. Schwartz and Park¹⁵ emphasized that 72% of those who worked at the psychiatric institutions did not receive any training about aggression. In Turkey, the study of Bilgin⁵ determined that 56.8% of the nurses did not get any training to cope with aggression. Literature especially underlines the importance of organizing special and continuous training programs for nurses and other workers. The fact that American Psychiatric Association designed a program for the psychiatric workers to cope with aggression in an effective way and many psychiatric institutions made it compulsory for the nurses to participate in these trainings regularly indicated some of the specific signs for the importance of the trainings.¹⁶

In the study, mean scores of the correct answers given before AMTP increased after the training; yet, the rate of means of the correctly answered questions partly decreased three months after the training due to forgetting but the mean scores of the correctly answered questions were higher compared to the mean scores obtained before the training ($p < 0.001$) (Table 1). Also, in the study conducted by Ilkiw-Lavalle et al.,¹⁰ in Australia, it was reported that there was a statistically significant increase in knowledge levels of the nurses after a two-day aggression management training; which was in agreement with our results. It was concluded in the studies conducted on courses about aggression management that the courses led to an increase in knowledge levels regarding basic topics of aggression management, a decrease in the use of forced practices towards patients, an increase in the level of self-confidence of the workers, changes in perceptions and attitudes of the nurses towards aggression.^{17,18}

In this study, mean scores of functional reaction subscale of POAS increased after AMTP and three months after AMTP compared to pre-training; whereas, there was a decrease in mean scores of dysfunctional reaction subscale of POAS ($p < 0.001$). When the reason for the differ-

ence was statistically analyzed, it was found out that the difference was due to the change in mean scores of pre-training and after-three-month (Table 2). On the other hand, there is an inconsistency between the studies that investigate the effect of aggression management training on aggression perception of nurses. While some of the studies have emphasized that aggression management training may cause positive changes in the aggression perception of nurses, others have indicated that aggression management training does not cause any change in the aggression perception of nurses.¹⁹

Several researchers have reported findings indicating that after aggression management training, staff members will have more feeling of control, greater confidence in their ability to handle assaultive patients, significantly more knowledge regarding various aggression management topics, and considerably improved feelings of self-efficacy, competence, and empathy.^{10,20} It may be concluded that nurses who feel well-informed after AMTP feel self-confident in the

approaches towards aggressive patients and experience decreased negative feelings about aggression.

Study limitation

The study was limited to the nurses who worked at psychiatric clinics in Kayseri, Turkey. The study was not a randomized controlled model because of the small number of nurses who worked at psychiatric inpatient clinics in Kayseri Province. The evaluation made on the effect of AMTP given to the nurses was limited to three months.

CONCLUSION

As a conclusion of this study, AMTP increased the knowledge levels of the nurses but their knowledge level partly decreased after three months later. Besides, positive changes were observed in their aggression perceptions. It may be recommended to continue regularly trainings about aggression management.

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