

# The Effect of Assertiveness Training Given to Nursing Students on Emotional Literacy and Assertiveness: A Mixed Method Study

Hemşirelik Öğrencilerine Verilen Girişkenlik Eğitiminin Duygusal Okuryazarlık ve Girişkenlik Düzeylerine Etkisi: Karma Yöntem Çalışma

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## ABSTRACT

**Aim:** This study was carried out to determine the effect of assertiveness education given to nursing students on emotional literacy and assertiveness behaviors.

**Methods:** The research was carried out between February-June 2022 with quantitative pre-test-post-test randomized control group experimental, thematic analysis of individual meetings held after qualitative training. 118 students were included in the sample group in the quantitative part of the research and 12 students in the qualitative part. For the collection of quantitative data of the study; participant information form, Emotional Literacy Scale and Rathus Assertiveness Scale were used and a semi-structured interview form was used for qualitative data. The participants in the case group were given assertiveness training for three hours a week for 10 weeks. The scales were applied to the case group before and after the training, and to the control group independent of the training. Quantitative data were analyzed with SPSS 25.0, and qualitative data were analyzed with the MAXQDA program.

**Results:** It can be seen that 53.4% of the participants in the experimental group are women, and 70% of the participants in the control group are women. A significant difference was found between emotional literacy and assertiveness scale mean scores in favor of the case group ( $p<0.05$ ). It was found that there was a moderate relationship between pre-post-education emotional literacy, and a relationship between post-educational emotional literacy and assertiveness. Qualitative data also supported this situation. As a matter of fact, one student used the following expression: 'I don't hesitate when I enter an environment, I can express myself easily. I can act confidently. I can speak my mind even if I get rejected.' (P7, Female)

**Conclusions:** Assertiveness training given to nursing students was found to increase assertiveness and emotional literacy levels. Both the quantitative results and the qualitative statements show the importance of adding this course to the curriculum.

**Keywords:** Assertiveness, Emotional literacy, Mixed method, Nursing, Student

Temel Mert Z., & Yılmaz Eker P., (2025). The effect of assertiveness training given to nursing students on emotional literacy and assertiveness: A mixed method study. *Journal of Higher Education and Science/Yükseköğretim ve Bilim Dergisi*, 15(1), 70-80. <https://doi.org/10.5961/higheredusci.1504514>

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Received/Geliş Tarihi : 25.06.2024

Accepted/Kabul Tarihi: 20.04.2025



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## ÖZ

**Amaç:** Bu çalışma hemşirelik öğrencilerine verilen girişkenlik eğitiminin duygusal okuryazarlık ve girişkenlik davranışlarına etkisini belirlemek amacıyla yapılmıştır.

**Yöntemler:** Araştırma, Şubat-Haziran 2022 tarihleri arasında nicel ön test-son test randomize kontrol gruplu yarı deneysel, nitel eğitim sonrasında yapılan bireysel toplantıların tematik analizi ile gerçekleştirildi. Araştırmanın niceliksel kısmında 118 öğrenci, nitel kısmında ise 12 öğrenci örneklem grubuna dahil edildi. Araştırmanın nicel verilerinin toplanması için; katılımcı bilgi formu, Duygusal Okuryazarlık Ölçeği ve Rathus Atılganlık Ölçeği kullanılmış, nitel veriler için ise yarı yapılandırılmış görüşme formu kullanılmıştır. Vaka grubundaki katılımcılara 10 hafta boyunca haftada üç saat girişkenlik eğitimi verildi. Ölçekler vaka grubuna eğitim öncesi ve sonrası, kontrol grubuna ise eğitimden bağımsız olarak uygulanmıştır. Nicel veriler SPSS 25.0 programıyla, nitel veriler ise MAXQDA programıyla analiz edildi.

**Bulgular:** Deney grubundaki katılımcıların %53,4'ünün kadın, kontrol grubundaki katılımcıların ise %70'inin kadın olduğu görülmektedir. Duygusal okuryazarlık ve atılganlık ölçeği puan ortalamaları arasında vaka grubu lehine anlamlı farklılık bulunmuştur ( $p<0,05$ ). Eğitim öncesi duygusal okuryazarlık arasında orta düzeyde bir ilişki olduğu, eğitim sonrası duygusal okuryazarlık ile atılganlık arasında ise orta düzeyde bir ilişki olduğu bulunmuştur. Niteliksel veriler de bu durumu destekledi. Nitekim bir öğrenci şu ifadeyi kullanmıştır: 'Bir ortama girdiğimde çekmem, kendimi rahatlıkla ifade edebilirim. Kendimden emin bir şekilde hareket edebilirim. 'Reddedilsem bile fikrimi söyleyebilirim.' (K7, Kadın)

**Sonuçlar:** Hemşirelik öğrencilerine verilen girişkenlik eğitiminin girişkenlik ve duygusal okuryazarlık düzeylerini arttırdığı bulunmuştur. Hem niceliksel sonuçlar hem de niteliksel ifadeler bu dersin müfredata eklenmesinin önemini göstermektedir.

**Anahtar Sözcükler:** Girişkenlik, Duygusal okuryazarlık, Karma yöntem, Hemşirelik, Öğrenci.

## INTRODUCTION

Assertiveness describes the control of emotions and the correct expression of thoughts (Omura et al., 2019; Ibrahim, 2011). In addition, since it is a skill that can be improved and learned through education, increasing the level of assertiveness contributes to positive developments such as being sincere and open, being flexible and optimistic, enjoying living and struggling, being tolerant of setbacks, self-confidence, and self-worth (Ateş, 2013). Therefore, a high level of assertiveness may increase the power of nurses by positively affecting emotional awareness, self-awareness and social communication. Nurses needed to have assertiveness skills, to use the acquired knowledge and skills effectively, to reduce the level of stress associated with others and to provide appropriate health care (Yoshinaga et al., 2018). Assertiveness makes important contributions to all areas of nursing practice as it encourages independent decision-making (İlhan et al. 2016). At the same time, the concept of assertiveness is the ability to express one's own feelings, thoughts, beliefs and needs with open and clear emotions. (İbrahim 2011). In this case, assertiveness can be considered to be related to the concept of emotional literacy (Kit, 2009), which means understanding, controlling, and managing emotions. Emotionally literate individuals are defined as individuals who are self-confident, mentally healthy, able to regulate their emotions and behaviours, aware of their own emotions and the emotions of others, have strong empathy skills, manage their own and others' emotions, establish positive relationships, solve problems and self-actualise (Adeyemo, 2007; Carmeli, Yitzhak-Halevy & Weisberg, 2009; Chan, 2008). In line with this information presented, it can be predicted that the concepts of emotional literacy and assertiveness may change in direct proportion. Emotional literacy and assertiveness in the nursing profession, which requires constant communica-

tion with patients or healthy individuals, can ensure healthier communication. Nurses' communication competences are a catalyst in the provision of professional care (Ranjan, Kumari & Chakrawarty, 2015).

The development of assertiveness and emotional literacy areas of nursing students, who are the health professionals of the future, may provide them with convenience during their professional experiences. In this case, it is expected that the number of nurses who establish strong communication will increase with the assertiveness training given to nursing students, and therefore nurses with high emotional literacy will improve their ability to understand patient emotions and empathy. In line with all these assumptions, as a result of the researches conducted based on the question "Is there a relationship between assertiveness and emotional literacy?", no study explaining the relationship between emotional literacy and assertiveness was found in the literature. Therefore, this study was planned as a mixed-method study to determine the effect of assertiveness training given to undergraduate nursing students in a college on emotional literacy and assertiveness. Presenting the results with quantitative data and explaining the details with qualitative data makes our study important as it contributes to the literature from a different perspective.

### Hypotheses of the Quantitative Phase

$H_{1a}$ : Assertiveness training given to nursing students has an effect on assertiveness level.

$H_{1b}$ : Assertiveness training given to nursing students has no effect on assertiveness level.

$H_{2a}$ : Assertiveness training given to nursing students has an effect on emotional literacy.

H<sub>2b</sub>: Assertiveness training given to nursing students has no effect on emotional literacy.

H<sub>3a</sub>: There is a relationship between assertiveness and emotional literacy level.

H<sub>3b</sub>: There is no relationship between assertiveness and emotional literacy level.

### Research Questions of the Qualitative Phase

1. How did assertiveness training affect your assertiveness level?
2. How did assertiveness training affect your emotional literacy level?

## METHOD

**Study design:** In the research, first quantitative and then qualitative exploratory sequential mixed design was used. The quantitative phase of the study was a randomised pretest-posttest experimental study with a control group, and the qualitative phase was based on thematic analysis of individual interviews with individuals who participated in the training.

**Sample and recruitment:** The population of the study consisted of a total of 135 students studying in the 2<sup>nd</sup> year of the nursing department of a university. The sample selection for the quantitative phase was randomised by simple random method among the students who met the inclusion criteria. Three students were excluded from the study because they were foreign nationals and eight students were excluded because they transferred horizontally/vertically from different schools, and the population was determined as 124 people in total. In the study, students were assigned to the experimental and control groups using a simple random numbers table. In the simple random numbers table, those between 0-62 were included in the experimental group and those between 63-124 were included in the control group. Four more students who did not continue the training in the experimental group were excluded from the study and the assertiveness training given in the experimental group was completed with 58 students. In the control group, 2 students left the study by saying that they did not want to participate in the study and 60 participants were included in the control group of the study. Thus, the study was completed with a total of 118 participants, 58 experimentals and 60 controls. Based on an effect size of 0.60, an alpha level of 0.90, and a total of 118 participants, the power analysis yielded an estimated statistical power of approximately 94.46% (0.9446). The sample of the qualitative part was selected from the students who participated in the quantitative part of the study with the purposive sampling method and 12 students who received the highest (4), lowest (4) and average scores (4) from the scales after the training were selected and in-depth interviews were conducted with them. The study was carried out between 02.02.2022-03.06.2022.

### Inclusion/Exclusion Criteria

- Students who have been studying at the same school since Grade 1/Students who have transferred from a different school,

- who can speak and understand Turkish/who do not speak Turkish and have difficulty in understanding,
- who are not absent from education/who do not attend classes even though they are enrolled.

### Data Collection

After written and verbal consent was obtained from the participants, the forms were given to the participants by the researchers and they were asked to read and fill them in by themselves. In order to prevent the participants from interacting with each other while filling out the scales, they were taken to the classroom one by one in different time periods, so that they could not see each other. While collecting qualitative data, participants were asked to use pseudonyms while filling in the forms in order to be selected by purposeful sampling method, to fill in the forms again after the training and to protect confidentiality. The time to complete the forms took approximately 20 minutes for each participant. After the completion of the forms, the participants in the experimental group were given assertiveness training for a total of 30 hours for 10 weeks, 3 hours per week (Table 1). Immediately after the training, the participants were asked to fill in the scales again using the same pseudonyms. For the qualitative phase of the study, face-to-face individual in-depth interviews were conducted with the participants 2 weeks after the training ended and the scales were applied, and the questions in the semi-structured interview form were asked. Participants were interviewed until data saturation was achieved. Each interview lasted an average of 40 min.

### Training Content and Purpose

The aim of this training was to enable students to gain self-knowledge and the ability to express their emotions, and to use assertive behaviour in their professional practice and social life. In our country, there is no specialized certification program for assertiveness training. However, the program content has been reviewed and approved by three personal development experts, three nursing science experts, and one expert in assessment and evaluation. The program content and objectives, developed with expert input, are presented in Table 1. During the training, lecture-based teaching, question-and-answer, and demonstration methods were used.

**Participant Information Form:** The form, which was created by the researchers by evaluating the literature (Azizi et al., 2020; Hurley et al., 2020), includes a total of 12 questions about the student's age, gender, family structure, parents' education level, number of siblings, the number of children in the family, the place where he/she lives, the place where he/she lived before university, whether he/she has received assertiveness training before, whether he/she finds himself/herself assertive and whether he/she knows himself/herself.

**Emotional Literacy Scale(ELS):** It was developed by Palancı et. al. in Turkey in 2014. The scale is applied to adolescents and above age group and reveals the emotional literacy levels of individuals. The scale consists of three subscales: "self-regulation, emotional awareness and social skills". The answers for

each item of the Likert-type scale were grouped into 5 groups. It is scored from 1 to 5 as “strongly disagree”, “somewhat agree”, “agree”, “strongly agree” and “strongly agree”. The minimum score is 34 and the maximum score is 170. The total score of the scale as well as the subscales can be scored separately. Scores between 34-80 from the scale indicate low literacy, scores between 80-125 indicate medium literacy and scores above 125 indicate high literacy. In the Turkish validity

and reliability study of the scale, Cronbach’s alpha internal consistency was 0.90 for the self-regulation sub-dimension, 0.87 for the emotional awareness sub-dimension, 0.86 for the social skills sub-dimension and 0.94 for the whole scale. In this study, Cronbach’s alpha value was 0.88 for the self-regulation sub-dimension, 0.91 for the emotional awareness sub-dimension, 0.89 for the social skills sub-dimension and 0.92 for the whole scale.

**Table 1:** Content of the Assertiveness Training Given to the Participants by Weeks

Week	Educational content	Expected Goals and Behaviors After Training	Method and duration used in education
1	What are assertive, aggressive and passive behaviors? Desire to be assertive, reasons for not being assertive and obstacles.	<ul style="list-style-type: none"> <li>Getting information</li> <li>Ability to express oneself</li> <li>Recognizing the importance of the situation</li> </ul>	lecture-based teaching, question-and-answer 30 minutes
2	Theoretical knowledge about the concepts of self-knowledge, consciousness, preconscious and subconscious. self promotion exercises	<ul style="list-style-type: none"> <li>Getting information</li> <li>Ability to express oneself</li> <li>Increasing the power of speech in front of the community</li> </ul>	lecture-based teaching, question-and-answer, and demonstration 40 minutes
3	Discussing the difficulties of introducing oneself and expressing emotions.	<ul style="list-style-type: none"> <li>Getting information</li> <li>Ability to express oneself</li> </ul>	lecture-based teaching, question-and-answer 40 minutes
4	Theoretical knowledge about assertive, aggressive and passive behaviors. Discussing behavioral examples	<ul style="list-style-type: none"> <li>Getting information</li> <li>Ability to analyze between concepts</li> </ul>	lecture-based teaching, question-and-answer, and demonstration 40 minutes
5	Role-Play: Passive, assertive and aggressive behavior.	<ul style="list-style-type: none"> <li>Ability to express oneself</li> <li>Recognizing their behavior</li> </ul>	demonstration 30 minutes
6	Discussing the reasons for wanting to be assertive, reasons for not being assertive and obstacles. Theoretical knowledge about the use of “I language” and “you language”	<ul style="list-style-type: none"> <li>Ability to analyze concepts related to assertiveness</li> <li>Gaining correct communication skills</li> <li>Getting information</li> </ul>	lecture-based teaching, question-and-answer 40 minutes
7	The achievements of assertive behavior; Theoretical knowledge of saying no when necessary, making requests, expressing positive and negative emotions, accepting criticism and compliments.	<ul style="list-style-type: none"> <li>Getting information</li> <li>Ability to express emotions</li> </ul>	lecture-based teaching, question-and-answer, and demonstration 40 minutes
8	Role-Play: being able to say no, making requests, expressing positive and negative emotions, accepting criticism and compliments	<ul style="list-style-type: none"> <li>Using effective communication methods</li> <li>Recognizing and expressing emotions</li> </ul>	demonstration 30 minutes
9	Theoretical knowledge about coping methods. Group work: Discussion of each participant’s own coping behaviors, Case study: analysis of coping techniques	<ul style="list-style-type: none"> <li>Getting information</li> <li>Recognizing and using coping methods</li> <li>Making sense of the other party’s feelings and behaviors during communication</li> </ul>	lecture-based teaching, question-and-answer, and demonstration 40 minutes
10	Describing a book or movie that affected them the most by expressing their feelings	<ul style="list-style-type: none"> <li>Ability to understand and express emotions clearly</li> </ul>	lecture-based teaching, question-and-answer 40 minutes



**Rathus Assertiveness Scale (RAS):** It was developed by Rathus (1973) to measure assertiveness in interpersonal relationships. The Turkish validity and reliability study of the scale was conducted by Voltan in 1980. RAS is a scale consisting of 30 items, and the total scores ranged from -90 to +90. Each item has 6 Likert-type options and the options are scored between -3 and +3 (-3 does not suit me at all, -2 does not quite suit me, -1 does not really suit me., +1 suits me a little, +2 suits me quite well, +3 suits me very well). According to the score obtained from the scale, -90 to +10 points is considered as timid behaviour and +10 to +90 points is considered as assertive behaviour. The Cronbach's Alpha value of the scale in the Turkish validity and reliability study was determined as 0.77. In this study, the Cronbach's Alpha value of the scale was determined as 0.83.

**Semi-structured Interview Form:** The questions in the form, which was prepared in line with the literature (Omura et al., 2019) were submitted to the review of five experts to determine whether they were understandable and whether they were suitable for the purpose of the study. After receiving the expert opinion, the participants were asked 3 questions: "How did assertiveness training affect you?", "What are the aspects of yourself that you consider assertive?", "How did assertiveness training affect your emotional awareness?". Interviews were continued until data saturation was reached and it was understood that data saturation was reached when it was observed that the answers given to the questions were repetitive. The interviews were conducted one by one with each participant in a quiet, distraction-free environment and the interviews were terminated when each participant's own data saturation was reached. Thus, the interviews were completed in a total of 27 sessions.

## Data Analysis

### Quantitative Data

Quantitative data analysis was performed with IBM SPSS Statistics Standard Concurrent User V 25.0 programme. Descriptive statistics, number and percentage distribution were determined in the analysis of the demographic data of the participants. The normality of the data was determined by Kolmogorov-Smirnov (K-S) test and skewness and kurtosis values and it was found that the data were normally distributed. In this case, independent sample t test was used for two independent groups and F test (ANOVA) was used for more than two groups. ANOVA test was used to compare the mean total scores obtained from the scales before and after the training. Pearson correlation analysis was used to determine the relationship between assertiveness and emotional literacy levels of the participants. Significance level was accepted as  $p < 0.05$ .

### Qualitative Data

Qualitative data were evaluated by thematic analysis method (repeated reading of the data, creation of initial codes, creation of themes, review of themes, definition of themes, creation of findings) using the six-stage guide suggested by Braun & Clarke (2019). Individual interviews were read and re-read. Coding was determined. The coding was compared, 3 experts

were consulted and the codes were verified. The codes were grouped as similar sub-themes and main themes. Comparison, sorting and processing of the codes were performed with Maxqda package programme. The data obtained from the analysis of the interviews were categorised. Categories were analysed and main and sub-themes were identified.

## Data Aggregation

The quantitative and qualitative results were merged to achieve a more complete understanding of the studied phenomena. The merging followed the primary data analysis integration procedures described by Creswell & Clark (2018).

## Rigour

Considering that a single research method would not provide a comprehensive answer to the problem, the data of the research were collected both quantitatively and qualitatively. Qualitative data were used to describe quantitative data. Considering the quantitative method, although the small sample size limits the generalizability of the research, the use of the qualitative method and the appropriate combination of data strengthened the research. Quantitative and qualitative data were collected by the same researcher. One of the researchers received qualitative research training and did not communicate with the students before the research. The quantitative data were analyzed by a statistician and after the qualitative data were read and coded repeatedly by the researchers, the data were determined by consulting 3 experts with qualitative research competence, and codes, themes and sub-themes were determined. Quantitative and qualitative data were found to support each other.

**Ethical considerations:** Before starting the study, written permission was obtained from the Ethics Committee of Sivas Cumhuriyet University where the study would be conducted (File no: 2022-03/33) and written and verbal consent was obtained from the participants who agreed to participate in the study. Participants were informed that they had the right to choose not to participate and that it was possible to leave the study at any stage. Participants were given a pseudonym to ensure confidentiality.

## FINDINGS

Table 2 shows that considering the demographic characteristics of the participants; it is seen that 53.4% of the participants in the experimental group were female, 77.6% had a nuclear family structure, 39.7% had a primary school graduate mother, 36.2% had a high school graduate father, 31% had more than 5 siblings, 75.9% lived in a dormitory, 50% lived in a big city, 89.7% had not received information about assertiveness training before, 19% did not find themselves assertive, and 3% thought that they did not know themselves. It was determined that 70% of the participants in the control group were female, 81.7% had a nuclear family structure, 36.7% had a primary school graduate mother, 31.7% had a high school graduate father, 40% had more than 5 siblings, 70% lived in a dormitory, 35% lived in a big city, 96.7% had not received information about assertiveness training before, 31.7% did not find them-

**Table 2:** Demographic Characteristics of Participants (n=118)

Demographic Characteristics	Groups		$\chi^2$	p
	Experimental group	Control group		
	n (%)	n (%)		
<b>Gender</b>				
Female	31 (53.4)	42 (70)	3.467	0.650
Male	27 (46.6)	18 (30)		
<b>Family structure</b>				
Nuclear family	45 (77.6)	49 (81.7)	0.584	0.446
Large family	9 (15.5)	9 (15)		
Broken family	4 (6.9)	2 (3.3)		
<b>Mother's educational status</b>				
Illiterate	8 (13.8)	8 (13.3)	0.679	0.412
Literate	4 (6.9)	2 (3.3)		
Primary school	23 (39.7)	22 (36.7)		
Secondary school	15 (25.9)	14 (23.3)		
High school	6 (10.3)	12 (20)		
Universty	2 (3.4)	2 (3.3)		
<b>Father's educational status</b>				
Illiterate	1 (1.7)	1 (1.7)	0.331	0.566
Literate	1 (1.7)	-		
Primary school	12 (20.7)	19 (31.7)		
Secondary school	18 (31)	15 (25)		
High school	21 (36.2)	19 (31.7)		
Associate degree	-	3 (5)		
Universty	5 (8.6)	3 (5)		
<b>Number of Siblings</b>				
One	2 (3.4)	2 (3.3)	1.212	0.273
Two	12 (20.7)	9 (15)		
Three	13 (22.4)	11 (18.3)		
Four	13 (22.4)	14 (23.3)		
Five and more	18 (31)	24 (40)		
<b>Who resides with</b>				
With my family	8 (13.8)	16 (26.7)	5.362	<b>0.022*</b>
In the dormitory	44 (75.9)	42 (70)		
Apart from my family	4 (6.9)	2 (3.3)		
Next to my relatives	2 (3.4)	-		
<b>Where did you live before college</b>				
In a big city	29 (50)	21 (35)	3.680	0.058
In a small city	6 (10.3)	8 (13.3)		
In the county	18 (31)	18 (30)		
In the village/town	5 (8.6)	13 (21.7)		
<b>Have you taken assertiveness training before?</b>				
Yes	6 (10.3)	2 (3.3)	2.300	0.132
No	52 (89.7)	58 (96.7)		

Table 2: Cont.

Demographic Characteristics	Groups		$\chi^2$	p
	Experimental group	Control group		
	n (%)	n (%)		
<b>If yes, from whom did you receive the training?</b>				
As a lesson	2 (3.4)	-	0.813	0.369
By watching video	1 (1.7)	1 (1.7)		
by reading a book	1 (1.7)	-		
From the conference/symposium	2 (3.4)	1 (1.7)		
<b>Do you find yourself assertive</b>				
Yes	21 (36.2)	15 (25)	0.377	0.540
No	11 (19)	19 (31.7)		
Partially	26 (44.8)	26 (43.3)		
<b>Do you think you know yourself</b>				
Yes	41 (70.7)	41 (68.3)	0.10	0.922
No	3 (5.2)	5 (8.3)		
Partially	14 (24.1)	14 (23.3)		

\* $p < 0.05$ ;  $\chi^2$ : *kikare*

Table 3: Comparison of Scale Total Scores of Participants in Experimental and Control Groups (n=118)

		ELS			Total ELS	Total RAS
		Self assessment	Emotional Awareness	Social Skill		
		Mean±SD	Mean±SD	Mean±SD	Mean±SD	Mean±SD
Experimantal group	Before Education	49.10±9.34	39.93±9.71	40.08±7.17	129.12±20.82	-13.08±22.78
		<i>p</i> =0.000* t=40.350	<i>p</i> =0.000* t=31579	<i>p</i> =0.000* t=42.965	<i>p</i> =0.000* t=47.628	<i>p</i> =0.000* t=-4.412
	After Education	52.93±11.61	40.42±7.01	42.12±9.13	135.47±24.30	21.58±22.09
		<i>p</i> =0.000* t=35.034	<i>p</i> =0.000* t=44.323	<i>p</i> =0.000* t=35.429	<i>p</i> =0.000* t=42.824	<i>p</i> =0.000* t=7.501
Control Group		42.56±13.66	36.12±9.76	37.69±9.81	116.37±30.61	-11.54±23.87
		<i>p</i> =0.000* t=23.934	<i>p</i> =0.000* t=28.412	<i>p</i> =0.000* t=29.502	<i>p</i> =0.000* t=29.202	<i>p</i> =0.000* t=-3.714

\* $p < 0.001$ , **ELS**: Emotional Literacy Scale, **RAS**: Rathus Assertiveness Scale, **SD**: standard deviation; **t**: independent t testi.

selves assertive, and 5% thought that they did not know themselves. It was determined that there was no statistical difference between the experimental and control groups except the place of residence ( $p < 0.05$ ) and the groups had similar characteristics ( $p > 0.05$ ).

Table 3 shows that there is a significant difference in both ELS and RAS scores of the participants after the training ( $p < 0.05$ ). In Table 3, while the ELS mean score of the students in the experimental group was 129.12 $\pm$ 20.82 before the training, it was found to be 135.47 $\pm$ 24.30 after the training ( $p = 0.000$ ), while the RAS score mean was -13.08 $\pm$ 22.78 before the training. It was found to be 21.58 $\pm$ 22.09 after training.

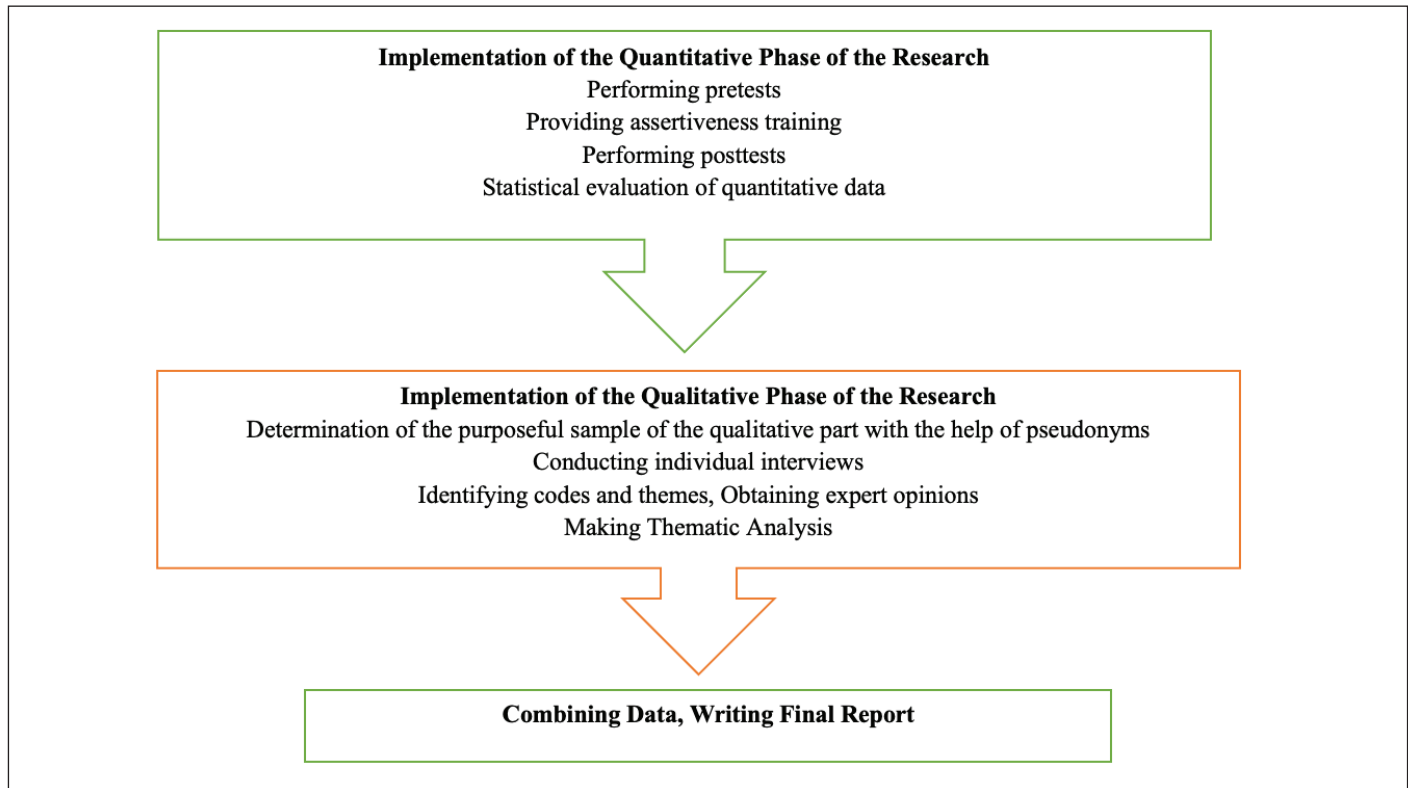
Pearson correlation analysis showing the relationship between the scales is given in Table 4. In Table 4, there is a moderate positive relationship between pre-ELS and post-ELS scores ( $r=0.434$ ,  $p=0.001$ ) and a strong positive relationship between pre-RAS and post-RAS scores ( $r=0.672$ ,  $p=$  It was found to be 0.000).

After one-to-one in-depth qualitative interviews with nursing students, 3 themes and 6 sub-themes were formed according to the participant statements. These themes were grouped as 'Before Training', 'After Training' and 'Statements about the Course'. In the sub-themes, the participants expressed Problems with Communication, Problems with Self-Confidence,

**Table 4:** Pearson Correlation Analysis Showing the Relationship Between the Scales

SCALES	Correlation Coefficient (r)	statistical significance level (p)
pre-ELS and post-ELS	0.434**	<b>0.001**</b>
pre-ELS and post-RAS	-0.278*	<b>0.033*</b>
pre-ELS and pre-RAS	-0.451**	<b>0.000**</b>
post-ELS and post-RAS	0.366**	<b>0.004*</b>
pre-RAS and post-RAS	0.672**	<b>0.000**</b>
control ELS and control-RAS	-0.365**	<b>0.004*</b>

\*\*  $p \leq 0.001$ , \*  $p < 0.05$ , **ELS:** Emotional Literacy Scale, **RAS:** Rathus Assertiveness Scale, **r:** Correlation Coefficient.

**Figure 1:** Research flow chart.

Problems with Emotional Awareness before the training, while after the training, they expressed the sub-themes of Improvements in Communication, Improvements in Self-Confidence, Improvements in Emotional Awareness. In addition, the terms frequently expressed by the participants during the qualitative interviews are given in Figure 1.

One participant made the following statement regarding the development of self-confidence.

*'... As I said, conducting the training in dialogue and communication was effective. Everyone should be active during the training, speaking, for example ..... my friend was saying something. The atmosphere was more comfortable for me. I was thinking that everyone was already talking at that time and I could talk too.' (P2, male)*

## DISCUSSION

Assertiveness is important in nursing because it is a highly social and disciplined profession and situations requiring assertive behaviour are frequently encountered. Assertive behaviour is defined as expressing one's own rights, thoughts and feelings without denying the rights of others (Bril et al., 2022). Nursing educators have a crucial role in teaching conflict resolution, communication skills and assertive behaviours that students may need to protect their own health when they enter the profession. (Oikarainen et al., 2018). In this study conducted with this perspective, it was found that the assertiveness training given to the participants positively affected their emotional literacy levels and assertive behaviours (Table 3). At the same time, in the qualitative interviews, the participants made statements supporting this situation. There are studies in the





**Figure 2:** Themes and sub-themes according to participant statements.

literature that determine the assertiveness levels of nurses. In the study of Hosgor et al. (2016), 20% of the student nurses defined themselves as assertive. Kelleci et al. (2011) found that students' assertiveness levels increased after the assertiveness course. In a study conducted with nursing students in Iran in which assertiveness levels were followed up during the education process, assertiveness levels increased as the years of education increased (Begley et al. 2004). Adana et al. (2011) found that assertiveness levels increased in all nurses working in a provincial center after assertiveness training. After a three-week web-based assertiveness training, it was found that nurses' assertiveness scores increased and their work stress decreased (Yamagishi et al. 2007). In more recent studies in the literature, it was found that the assertiveness levels of nurses who received assertiveness training increased (Yoshinaga et al. 2018). In Omura's study (2019), although assertiveness training was statistically insignificant, it caused an increase in mean scores. In a study conducted in Turkey, a longitudinal study was conducted to determine whether assertiveness and self-esteem levels of nursing students increased during the education process, assertiveness and self-esteem levels of students were followed at the end of each year for 4 years and it was found that they increased (Ilhan et al. 2016). It is understood from the results of these studies that the role of education in increasing the assertiveness levels of nursing students is quite significant. These results are consistent with our study. One of the students participating in the study used the following statement regarding the increase in assertiveness.

*'I do not hesitate when I enter an environment, I can express myself comfortably. I can act confidently. I can speak my mind even if I am rejected.'* (P7, Female)

In this case, it can be said that assertiveness characteristics such as increased self-confidence, increased ability to express emotions, and improved perception of the situation emerged in students after the training. The characteristics expected to be developed by the individual with assertiveness training can help individuals to increase their emotional literacy levels. Assertive individuals should be able to understand the emotions of the other individuals and themselves. In this respect, it was found that there was a correlation between assertiveness traits and emotional literacy (Table 4). In addition, in the qualitative findings, the participants stated that their emotional awareness also increased in the questions about assertive characteristics. In this regard, one participant said: *'I used to have difficulty in expressing my feelings. ...after this course it was easier for me to make sense of my feelings.'* Accordingly, it can be interpreted that assertiveness training changes simultaneously with the level of emotional literacy and contributes to the use of correct communication techniques, awareness of emotions, and individual self-evaluation in nursing students. The statement of one participant, *"I can reduce the dose of an overreaction. The other day I had a problem with my friends, I was upset, I didn't realise it at the time, but then I was able to tell my friends that your behaviour made me very sad."* (P10, female) also supports this situation.

Although emotional literacy is important in a profession such as nursing that requires recognising and understanding people's emotions, studies on this subject are limited. However, articles emphasising the importance of emotional intelligence training for nursing were found (Dugué, Sirost, Dosseville 2021). Considering that the concepts of emotional intelligence and emotional literacy have different aspects but mostly overlap (Mayor 2016), it is understood that emotional literacy skills are also important. In a study, it was found that nurses with high emotional intelligence defined their professional competences better (White, Grason 2019). In a study conducted in Turkey, it was found that Emotion-Based Education Programme positively affected nursing students' ability to recognise, express and empathise their emotions (Sisman and Buzlu 2016). No study was found in which assertiveness characteristics and emotional literacy characteristics were compared in nursing. In this study, it was found that the emotional literacy characteristics of the students increased. One student explained this situation as follows.

*'I can talk to the other person. I have changed in that respect. I used to not care, I used to make it a fait accompli. I can see and talk now. For example, I realised that a friend of mine was unhappy. My other friends didn't realise, but I did. Then we had a talk about it. We solved it.'* As it can be understood from here, it can be said that after assertiveness training, there is an improvement in the ability to empathise as well as contributing to the development of self-awareness of students. In this case, it is thought that adding a course on assertiveness training to the curriculum of nursing students will contribute to their understanding of their own emotions and thoughts in their professional life, as well as understanding the emotions and needs of the patient they care for.

The results of this study are important since there is a gap in the literature on the subject and more data are needed on this subject. The development of emotional literacy features such as understanding and predicting emotions in nursing and giving correct reactions can contribute to professional development. Although it is one of the important points in nursing, it has also contributed to the development of the basic principles in the philosophy of nursing, such as the development of empathy ability, which is neglected although it is one of the important points in nursing, the person's self-awareness and awareness of one's emotions, understanding the emotions of the patient to whom one provides care and reflecting this to his/her care, as well as positively affecting his/her social life; during the in-depth interview, the student said, *"This training affected me positively. I couldn't say no to anyone, no matter what subject, even if I was very busy, I couldn't say no. .... I realised that the other person did not understand me and that I could not explain myself. I was at loggerheads with myself for not expressing the situation to the other person. Now I can tell people my problems nicely. I've found it works in my relationship with my family. I realised we had a better quality of conversation."* (P8, female) In addition, a participant said: *'Before, I was shy, and even if I did not want to do something, I did it to avoid offence. Now I can say no. I can say what I want to say comfortably'* (P12, female), which shows that she is aware of her own feelings, can understand and apply the concept of being able to say no and that her assertiveness has developed. In this case, it can be considered that assertiveness training supports the nurse to have a say in the patient's own care and this value contributes to professional development. The participant statements in figure 1 also support this situation.

It is thought that assertiveness education given to nursing students also contributes to the development of some skills in their own lives. For example, one participant said: *'.... After the training, I realised that communication is not just listening or making sentences. How I look after myself, how I manage myself. I used to worry about how people perceived me from the outside. In other words, I would be very curious about how I look from the outside, how they perceive me, what they think as a behavioural character, and I would build it in my head. After the training I realised that the only thing I should care about is myself. Yes, I have to respect people's opinions. I need to understand them. But it shouldn't be a sanction on me.'* (P4, female) explained that she could not express her feelings correctly due to the fear of being misunderstood, but this situation improved at the end of the training. As a matter of fact, it is thought that it is important to identify and intervene in situations that do not overlap with assertiveness, such as the effort to be appreciated, the desire to be accepted by the society, and giving importance to social perceptions by putting individuality in the background, both from a social point of view and in terms of reflection on the nursing profession.

## CONCLUSION

This study aimed to understand the levels of assertiveness and emotional literacy after assertiveness training given to nursing students. Students' assertiveness and emotional literacy

levels increased after the training. A significant relationship was also found between emotional literacy and assertive personality traits. After the study, the students made statements supporting that they developed positive aspects of assertiveness, communication and self-confidence. Considering that it will contribute to professional development and have positive reflections on care, it is recommended that the subject of assertiveness should be added to the course content of nursing programmes, and assertiveness and emotional literacy levels should be improved by associating them with patient care.

## LIMITATIONS

This study has several limitations. It was conducted at a single center, making it difficult to generalize the results to the broader population. Additionally, the fact that only one measurement was taken in the control group is another limitation of the study.

**Financial Support:** No financial support was received.

**Conflict of Interest:** There is no conflict of interest

**Ethics Committee Approval:** Ethical approval was obtained from the Non-Interventional Clinical Research Ethics Committee of Sivas Cumhuriyet University on 23 March 2022, with decision number 2022-03/33.

**Author Contribution Declaration:** Conceptualization: PYE, ZTM; Methodology: PYE, ZTM; Data collection (quantitative/qualitative): PYE, ZTM; Data analysis (quantitative/qualitative): PYE, ZTM; Writing—original draft preparation: PYE, ZTM; Writing—review and editing: PYE, ZTM; Supervision: PYE, ZTM"

**Referee Process:** Double-blind referee.

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