RESEARCH ARTICLE

Effect of assertiveness training on the nursing students' assertiveness and self-esteem levels: Application of hybrid education in COVID-19 pandemic

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Abstract

The changes taking place in the education system along with the coronavirus disease 2019 pandemic make it compulsory to use distance education methods. For evaluating whether the assertiveness training which was offered through a hybrid education model had any effect on assertiveness and self-esteem, this study was conducted as an experimental study with the control group. In the study, the Rathus assertiveness inventory, Coopersmith self-esteem inventory, and personal information form were utilized. The participant nursing students were assigned to experimental and control groups. The measurement tools were applied to both groups while the assertiveness training was later given solely to the experimental group. At the end of the training given to the experimental group, the measurement tools were applied once again to both groups. According to the results of the study, while the assertiveness and self-esteem of the students in the experimental group increased significantly from the pre-test to the posttest measurements, no statistically significant difference was found in the measurements made in the same periods in the control group. This situation demonstrates that the technology-based hybrid assertiveness training was effective in enhancing assertiveness and self-esteem.

KEYWORDS

assertiveness, COVID-19, hybrid education, nursing student, self-esteem

1 | INTRODUCTION

Today, effective communication skills are perceived as a critical component of quality and safety in health services and acknowledged as a professional qualification criterion in nursing.[1] With its aspect of balancing relationships, increasing satisfaction, and facilitating understanding, the concept of assertiveness is a skill that comes to the fore with an increase in communication-based malpractices in nursing services.[2] This situation makes assertiveness a basic need in the nurses' professional lives.[1] Low-level assertiveness affects the nurse's communication adversely and can lead to falls in the care quality and job satisfaction as per the review of the studies on the nurses' assertiveness levels.[3,4] Along with the increase in the assertiveness level, the individuals' treatment and recovery processes are positively affected, the communication competence is strengthened, conflicts are avoided and job satisfaction is enhanced.[5,6] Assertiveness can be evaluated as an expression of self-esteem.[7] Studies have found that there is a relationship between nurses' self-esteem and their level of assertiveness,[8,9] and nurses who see themselves as competent individuals are more sociable than those who do not see themselves as competent.[10] It has been reported that this situation is related to being safe in life, finding success and happiness, overcoming disappointments, and being able to change thanks to positive self-esteem levels.[11] As the members of

the nursing profession are mostly female in Turkey and the assertiveness can be affected by the differences between the styles of raising girls and boys in Turkish culture and by the transfer of unassertive behaviors to the women through culture as per the roles assigned to them, it becomes a necessity to assess the nurses in terms of assertiveness even as of the period when they are students.[10]

With the coronavirus disease 2019 (COVID-19) pandemic, the need for nursing services has increased, and strategies to improve the quality of care have come to the fore with the increasing burden.[12] The growing workload in the health system led to increases in the nurses' work hours, the number of patients to whom they offered care, and their stress levels.[13] Problems such as the anxiety felt due to the infection as well as patient care, isolation measures, the obligation to work for long hours with protective equipment and the fall in the social interactions urge the nurses who will newly start practicing this profession to have qualities which will enable them to fight with challenging conditions besides having professional skills.[14] These qualities include also the assertiveness skills such as self-awareness, recognition, and expression of emotions, emphatic approach, positive interpersonal relations, and effective coping and problem-solving.[15] With these skills, it will be possible for nurses to transfer the professional competencies they have acquired in the education process to patient care even under difficult conditions.[10] Therefore, it has become important to gain social skills such as assertiveness, as well as professional competencies, during the pandemic process.

As a skill that can be learned, assertiveness poses an opportunity to be developed during nursing education.[15,16] The assertiveness skill acquired in the educational setting gives the student nurses also the opportunity to understand the patients' needs accurately while providing nursing care.[17] The reason for this is that assertiveness may positively affect self-confidence, problem-solving and decision-making processes, as well as academic and professional success.[18-20] In the efforts made for developing the student nurses' assertiveness skills, it is discerned that the assertiveness developed positively and such training programs were offered through conventional face-to-face methods.[1,21] The accessibility of communication technologies by a large mass of people allows the use of new generation education styles.[22] As of 2020, new generation education methods became a constituent part of the daily life of the entire world. Under the circumstances of the pandemic, by necessity, the education process was continued with online, offline, or hybrid education instead of face-to-face education. Hybrid education is the use of face-to-face and distance education methods jointly by blending them with technology.[23,24] In hybrid education which is categorized within the context of smart education systems, it is important to adapt the content of remotely-lectured training programs to technology.[25] It is of importance to scientifically evaluate these methods which act as alternatives to the face-to-face training programs due to the unforeseeable nature of the pandemic and to develop the literature relevant to distance education. This study aimed to evaluate whether assertiveness training which was offered to the nursing students by using the hybrid method had any effect on the nursing students' assertiveness and self-esteem levels.

2 | METHODOLOGY

2.1 | Study design and participants

For evaluating the effect of assertiveness training on the nursing students' assertiveness and self-esteem levels, the research was designed as an experimental study with the control group. The research was conducted in the spring semester of 2019–2020 academic year at the Department of Nursing of the Faculty of Health Sciences of Bandirma Onyedi Eylul University in Balikesir province of Turkey. The population of the study consisted of 116 students who were in their first year of undergraduate nursing education. Within the scope of the study, it was aimed to reach all first-year students of the nursing department, and no sample selection was performed. A total of 94 nursing students who agreed to take part in the study and answered the questions completely were included in the research. While the experimental group was comprised of 54 nursing students, the control group that did not partake in the assertiveness training had 40 nursing students. Assertiveness training was an elective that students chose to complete. At the end of the semester, an additional exam for education was held and graded by the corresponding researcher, who was also the lecturer of the course. All of the students who fully participated in the training were successful in the exam.

2.2 | Research setting

The study was performed in February–May 2020. The training was launched on February 13, 2020, and the measurement tools were applied to the experimental and control groups just before the first session of the training program. The fifth session of the training was held on March 10, 2020. Along with the identification of the first COVID-19 case in Turkey on March 11, 2020, certain restrictions were imposed on March 16–22, 2020. In this period, so that the training could continue in a digital learning management system, necessary preparations were put in place and training materials were updated. The advantage of this system is that online training is recorded, the students and the instructor have the opportunity to watch the training again, and student actions and how long the student spends in the system can be reported. Before the online training was initiated, the nursing students in the experimental group were contacted for learning whether they had any trouble connecting to the internet. Thus, 35% of the assertiveness training which was comprised of 14 sessions in total was performed face-to-face whilst 65% of the training was applied online. While the face-to-face training sessions lasted 90 min, each online training session took

40 min. The posttest phase was carried out on May 21, 2020, in the immediate aftermath of the training sessions. By using the most current literature, the content of assertiveness training was prepared on the theoretical and conceptual dimension of assertiveness, cognitive, emotional, and behavioral aspects of assertiveness, self-knowledge, assertiveness exercises, and their uses in the nursing profession (Table 1).[6,20,26,27]

In the hybrid education model employed during the training program, learning activities are performed both inside and outside the classroom. The technology-based learning activities take place both in the face-to-face sessions and the distance education sessions. The primary achievement of the smart training programs is that a large part of the training is carried out remotely. In this manner, they provide the trainees and trainers with flexibility and ease of accessing data.[25] The model exhibited in Figure 1 shows the tools used in the research.

2.3 | Data collection tools

2.3.1 | Personal information form

This form which was prepared by the researchers for evaluating the sociodemographic data and the participant characteristics considered to be related to assertiveness is comprised of 10 questions. While choosing these questions, studies on assertiveness and self-esteem in the literature were taken into consideration.[2,3,15,16,18–21,28,29]

2.3.2 | Rathus assertiveness inventory

The inventory which was developed by Rathus and Nevid[30] was adapted to Turkish by Voltan.[31] Designed as a six-point Likert-type inventory, it was made up of 30 questions, and its items were scored from −3 to +3. The minimum and maximum scores to be obtained from the inventory were −90 and +90 points respectively. A score of −90 refers to the highest level of unassertiveness whereas a score of +90 denotes the highest level of assertiveness. Cronbach's alpha coefficient was calculated as 0.72 in the study. The Turkish researcher who conducted validity and reliability studies of the tool offered the scale free of charge and via open access.[31]

2.3.3 | Coopersmith self-esteem inventory

The inventory was developed by Cooppersmithh,[32] and the validity and reliability tests for the inventory were performed in Turkish by Turan and Tufan.[33] In this study, its short-form composed of 25 items was utilized. The form is made up of items that can be answered as either "Yes" or "No." The score obtained from the inventory is multiplied by four and hence, the overall inventory score is calculated. As the score obtained from the inventory increases, the level of self-esteem also goes up. The minimum and maximum scores to be obtained from the inventory are successively 0 and 100 points. In the study, Cronbach's alpha coefficient as the measure of internal consistency was calculated as 0.72. The Turkish researcher who

TABLE 1 Assertiveness training sessions

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1. The application of the measurement tools to the experimental and control groups in the pretest phase (February 13, 2020)		
2. Giving training to the experimental group (February 13–May 21, 2020)		Control group
2.1 Sessions of the training program offered to the experimental group		No training was offered
Session 1	February 13, 2020	Introduction—self-knowledge exercises
Session 2	February 20, 2020	Assertiveness and the relevant concepts
Session 3	February 27, 2020	Assertive, unassertive, manipulative and aggressive behaviors, and exercises for identifying the behavior type
Session 4	March 3, 2020	Characteristics of unassertive behavior—role plays
Session 5	March 10, 2020	Characteristics of aggressive behavior—role plays
Session 6	March 26, 2020	Characteristics of assertive behavior—video display
Session 7	April 2, 2020	The biological aspect of the behavior
Session 8	April 9, 2020	Cognitive and emotional aspects of the behavior
Session 9	April 16, 2020	I language versus You language—home exercises
Session 10	April 25, 2020	Concept of empathy and assertiveness—video display
Session 11	April 30, 2020	Assertiveness and nursing
Session 12	May 7, 2020	Examples of the assertive behavior—home exercises
Session 13	May 14, 2020	Assertiveness expressions, assertive behavior exercises in daily life
Session 14	May 21, 2020	Evaluation of the training program jointly with the students—exercise for recognizing the changes in ourselves
3. Application of the measurement tools to the experimental and control groups in the posttest phase (May 21, 2020)		
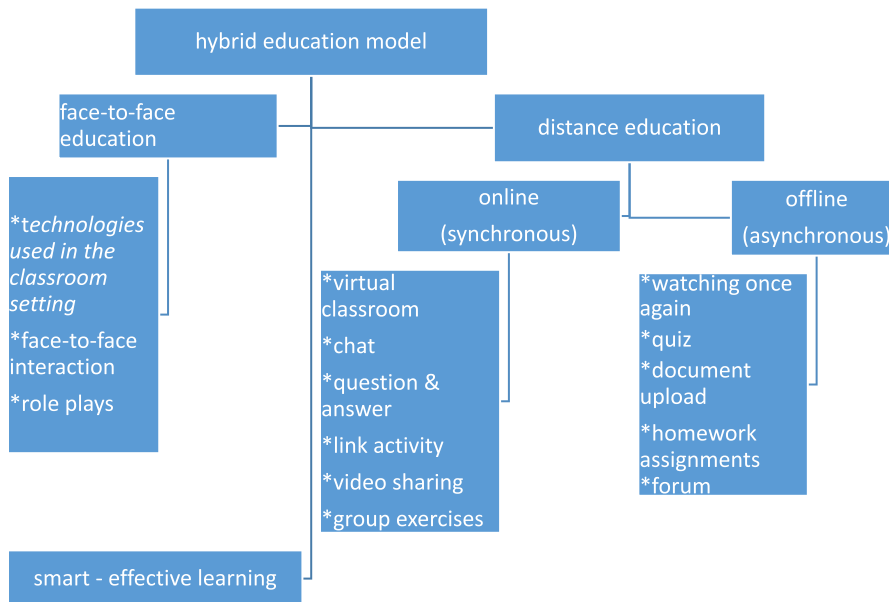
FIGURE 1 Hybrid education model*.[24,27] *The figure was created by the authors of this article

conducted validity and reliability studies of the tool offered the scale free of charge and via open access.[33]

2.4 | Analysis of the research data

The frequencies, percentages, χ^2 test for normality and the homogeneity of variance test were used in the analysis of research data. The parametric measurement tools, namely, paired samples t test and independent samples t test, were also utilized based on the characteristics of the research data. To test the reliability of the inventories, Cronbach's alpha coefficients were calculated. The research data were analyzed by using SPSS 25.0.

2.5 | Ethical aspect of the research

The research was conducted in conformity with the principles of the Helsinki Declaration, and the permission for performing the study was received from the Department of Nursing of the Faculty of Health Sciences of Bandirma Onyedi Eylul University, and the ethical endorsement was obtained from the Health Sciences Noninvasive Clinical Research Ethics Committee of Bandirma Onyedi Eylul University (Date: January 13, 2020; No: 2020-01-03). Moreover, the nursing students who volunteered to partake in the study filled in the written consent form. The data were collected via the Google Forms platform. The form's link was sent to the students and, e-mail verification and student ID were requested. The researchers received a message when students' accessed the link with e-mail verification. Researchers identified and allowed the access right the students who were first-grade and, chosen course. Thus, the students were prevented from providing more than one answer, and people/students outside the population were prevented from being included in the study. The purpose of the study was explained in the link. The responses of the students participating in the study were recorded on line with password protection, and confidential, and the answers were available to the researchers only.

3 | FINDINGS

The descriptive characteristics of the nursing students participating in the research are indicated in Table 2. In the study, the experimental group and the control group are successively composed of 54 and 40 students.

The mean ages of the students in the experimental and control groups are consecutively 19.65 ± 1.92 and 19.75 ± 2.22 years. Female students made up 70.4% of the experimental group and 77.5% of the control group, and the students living in the province center corresponded to 68.5% of the experimental group and 77.5% of the control group. Approximately one-fourth of the students in both groups are members of nuclear families and their mothers do not work. As per the comparison of the descriptive characteristics of the nursing students in the experimental and control groups according to the data displayed in Table 2, it can be put forward that the students in the experimental and control groups had similar characteristics ($p > 0.05$).

As per Table 3, the difference between the means of pretest and posttest assertiveness scores of the students in the experimental group (respectively 10.46 ± 16.17 and 19.83 ± 11.61 points) was statistically significant ($p < 0.05$) whereas there was no statistically significant difference between the means of pretest and posttest assertiveness scores of the students in the control group as per the measurements conducted in the same period ($p > 0.05$).

As per Table 4, the difference between the means of pretest and posttest self-esteem scores of the students in the experimental

TABLE 2 Comparison of the descriptive characteristics of the participant nursing students in the experimental and control groups

Descriptive characteristics	Experimental group (n = 54)		Control group (n = 40)		
	n	%	n	%	
Gender					
Female	38	70.4	31	77.5	χ^2: 0.598, p: 0.439
Male	16	29.6	9	22.5	
Place of residence					
Province center	37	68.5	31	77.5	χ^2: 0.926, p: 0.336
District/Village	17	31.5	9	22.5	
Family type					
Nuclear family	44	81.5	32	80.0	χ^2: 0.226, p: 0.635
Conventional extended family	10	18.5	8	20.0	
Mother's job					
Not working (housewife)	36	66.7	30	75.0	χ^2: 0.763, p: 0.382
Working	18	33.3	10	25.0	
Father's job					
Worker/Civil Servant	21	38.9	12	30.0	χ^2: 5.042, p: 0.080
Retired	18	33.3	8	20.0	
Other	15	27.8	20	50.0	
Who makes the decisions in your family?					
Parents	39	72.2	26	65.0	χ^2: 0.562, p: 0.454
Together as a family	15	27.8	14	35.0	
Do you think that you are assertive?					
Yes	26	67.7	21	52.5	χ^2: 0.174, p: 0.677
No	28	32.3	19	47.5	
Do you think that your father is assertive?					
Yes	38	70.4	29	72.5	χ^2: 0.051, p: 0.821
No	16	29.6	11	27.5	
Do you think that your mother is assertive?					
Yes	36	70.4	26	65.0	χ^2: 0.028, p: 0.866
No	18	29.6	14	35.0	
Age	$\bar{X} \pm SD$ = 19.65 ± 1.925		$\bar{X} \pm SD$ = 19.75 ± 2.222		t: −0.237, p: 0.813

TABLE 3 Comparison of the assertiveness scores of the experimental and control groups

Assertiveness	Pretest $\bar{X} \pm SD$	P1	Posttest $\bar{X} \pm SD$	P2	P3
Experimental group	10.46 ± 16.17	t: 0.735, p: 0.464	19.83 ± 11.61	t: 2.511, **p: 0.015**	t: −3.441, **p: 0.001**
Control group	8.10 ± 14.31		10.08 ± 22.45		t: −0.594, p: 0.556

Note: P1: Comparison of the means of pretest scores of the experimental and control groups. P2: Comparison of the means of posttest scores of the experimental and control groups. P3: Comparison of the means of pretest and posttest scores.

TABLE 4 Comparison of the self-esteem scores of the experimental and control groups

Self-esteem	Pretest $\bar{X} \pm SD$	P1	Posttest $\bar{X} \pm SD$	P2	P3
Experimental group	63.18 ± 14.95	t: −0.065, p: 0.948	70.51 ± 12.04	t: 0.472, p: 0.639	t: −3.200, **p: 0.002**
Control group	63.40 ± 16.98		69.10 ± 15.94		t: −1.809, p: 0.078

Note: P1: Comparison of the means of pretest scores of the experimental and control groups. P2: Comparison of the means of posttest scores of the experimental and control groups. P3: Comparison of the means of pretest and posttest scores.

group (consecutively 63.18 ± 14.95 and 70.51 ± 12.04 points) was statistically significant (*p* < 0.05) whilst there was no statistically significant difference between the means of pretest and posttest self-esteem scores of the students in the control group according to the measurements performed in the same period (*p* > 0.05).

4 | DISCUSSION

Assertiveness which is the expression of self-esteem affecting the individuals professionally and socially is among the skills which the nursing students are supposed to acquire.[3] Moreover, assertiveness allows nurses to use their independent functions effectively.[1] The COVID-19 pandemic which has taken hold of the entire world demonstrates clearly the potency of the nursing profession and the importance of nursing education. Nurses who are equipped with the most current knowledge and mentally strong are needed in the field.[12,14] This situation necessitates the effective continuation of nursing education under the pandemic conditions the and acquisition of assertiveness skills that will ensure a fast adaptation to extraordinary situations. This study which was designed to evaluate the effect of the assertiveness training on assertiveness and self-esteem also allows viewing the effectiveness of the training offered in the digital platform under the circumstances of the pandemic. As per the results obtained from this study, it was discerned that the nursing students in the experimental and control groups were similar to each other according to the comparison of their descriptive characteristics (Table 2). It was ascertained that most students in the experimental and control groups were female, lived in the province center, were members of nuclear families, their mothers were mostly housewives, and their fathers were generally workers/civil servants or self-employed. Moreover, the majority of the students included in the study set forth that the family decisions were made by the parents and their parents were assertive. Furthermore, 67.7% of the students in the experimental group and 52.5% of the students in the control group perceived themselves as assertive. It is discerned that, as per the comparison of the means of assertiveness scores of the experimental and control groups (respectively, 10.46 ± 16.17 and 8.10 ± 14.31 points) before the training was given to the experimental group, there was no statistically significant difference between the two groups (*p* > 0.05). It can be set forward that this was a crucial finding for this current study, and it would give the opportunity to analyze the effect of assertiveness training objectively.

Likewise, the experimental and control groups had similar characteristics also in previous studies performed about the assertiveness training programs.[1,2,21,34]

Upon the evaluation of the effect of assertiveness training on the nursing students' assertiveness levels, it was found that there was a statistically significant increase in the mean of posttest assertiveness scores of the students in the experimental group vis-a-vis the mean of their pretest scores whereas there was no statistically significant difference in the means of pretest and posttest scores of the control group in the same period (Table 3). In another study, the mean of midwifery students' assertiveness scores which was 68.80 points before the training reached 75.50 points following the training.[35] Moreover, in a study performed with nurses, the mean of assertiveness scores that was −14.20 before the training reached −10.50 after the training.[36] In the other study it was stated that there was a statistically significant increase in the assertiveness scores following the assertiveness training.[21] In another study, it was found that the eight-week assertiveness training given to student nurses was effective on the students' assertive behavior.[37] A total of eight studies from the USA, Australia, Ireland, and Taiwan were included in a systematic review examining the effectiveness of assertiveness training for healthcare professionals and students. All assertiveness trainings except for experienced anesthetists were found to be effective in these studies.[19] The results of all these previous studies are analogous to the results of this current study. It can be put forth that the statistically significant difference in the assertiveness levels in this current study was associated with the clear identification of what the assertive, aggressive, and passive behaviors were about, the presence of initiatives that raised the awareness about the consequences of these behaviors in the form of both knowledge and behavior and the inclusion of training components such as the concept of empathy, utilization of I language and problem-solving techniques. Implementation of assertiveness training programs for student nurses is important in terms of contributing to the training of nurses who are confident in the future and defend their rights, as well as advocate for their patients. In light of the research findings, it can be stated that the assertiveness training performed in the hybrid format was as effective as the face-to-face training sessions and raised the nursing students' assertiveness levels.

The previous research studies advocate that obtaining assertiveness skills was associated also with self-esteem.[7,28] The nurses who have low-level self-esteem and are unassertive can exhibit

negative professional attitudes and behaviors. These skills are necessary for nurses to transfer their professional knowledge and skills to the care they offer, increase the quality of care, be effective in communication with the patient and the healthcare team, and increase professional satisfaction.[3,16] In this current study, it was ascertained that there was a statistically significant increase in the mean of self-esteem scores of the students in the experimental group in the posttest phase vis-a-vis the mean of their pretest self-esteem scores ($p < 0.05$), however, there was no statistically significant difference between the means of pretest and posttest self-esteem scores of the students in the control group ($p > 0.05$). In a study performed with nursing students in Nepal, it was found that there was a moderately positive association between the students' assertiveness and self-esteem levels.[8] In a study conducted with 129 managers at a bank in Sri Lanka, it was set forth that the self-esteem level was enhanced as the assertiveness level increased.[7] In a study that examined self-esteem with the participation of 1,601 nursing students, there was a statistically significant relationship between empathy and self-esteem which formed the components of the assertiveness training and were skills supposed to be acquired by the students.[38] In the assertiveness training program performed with nurses, it was identified that the mean of the self-esteem scores of the experimental group that was 31.90 points before the training reached 41.13 points after the training and the difference between the mean pretest and posttest scores was statistically significant. In the same study, it was found that the mean of the posttest self-esteem scores of the experimental group was higher than the one obtained by the control group.[6] In a study in which the effect of assertiveness training on self-esteem was explored, it was discerned that there was a statistically significant increase in the mean of the self-esteem scores of the individuals in the experimental group after the training whereas there was no statistically significant difference between the mean pretest and posttest self-esteem scores of the individuals in the control group.[39] The results of all these studies support the results of this current study. The factors associated with the increase in the self-esteem of the experimental group can be that, in the context of the assertiveness training, the students got to know themselves, individual and social differences were respected, the strengths and weaknesses were realized, and self-acknowledgment was supported together with its positive and negative aspects. Additionally, it can be considered that assertiveness exercises allowed the students to understand themselves. Moreover, developing problem-solving skills can help to raise the students' self-confidence and self-esteem levels. In a study performed on 176 students via virtual education, it was put forward that there was a statistically significant association between problem-solving skills and self-esteem.[40] However, in that study, it was discerned that there was no statistically significant difference between the means of posttest self-esteem scores of experimental and control groups ($p > 0.05$). It can be said that this situation could be associated with the positive effect of the ongoing nursing education, which the students in the control group received simultaneously at the same time

as the virtual education, on the self-esteem. In a study in which the nursing students' professional self-esteem levels and their levels of satisfaction with their education were analyzed, the higher mean of the final year students' professional self-esteem scores than those of other class years is in support of the above-cited situation.[41] Additionally, as the concept of self-embodies a perception that was embedded since the childhood period, the initiatives to change it need a long time.[29] Besides, trying to adapt to new rules and changes and feeling anxiety, hopelessness and academic uncertainty due to the pandemic[42] might have made this change hard for both the experimental and control groups. In a study, it was found that there was a positive relationship between academic achievement and self-esteem.[43] Also in this current study, it can be set forth that academic anxiety experienced by the students based on the pandemic negatively affected their academic achievements and accordingly, the components of self-esteem. Furthermore, in a study performed with 1200 people during the pandemic, it was demonstrated that the fear of COVID-19 might give rise to anxiety, depression, and loneliness, and all of them affected self-esteem adversely.[44] As per the results of this current study, it was ascertained that the assertiveness training offered in hybrid format was effective in enhancing assertiveness and self-esteem.

5 | CONCLUSION AND RECOMMENDATIONS

In this study, it was discerned that the assertiveness training offered through hybrid education in which face-to-face and online methods were used together had a positive effect on the enhancement of self-esteem and assertiveness. The conclusions of this study reveal that the assertiveness training should be revised as the education system that affected by the pandemic. Likewise, developed and well-suited materials are very crucial for online training programs. Also, undergraduate nursing education should include assertiveness training programs. More studies should be made on distance education to explore the most effective methods. In addition, distance assertiveness skills training programs should organize for the nurses who work in the field to adapt them to extraordinary situations in their work experiences.

LIMITATIONS OF THE RESEARCH

Organizing the necessary preparations in a short period of time due to the sudden transition to the hybrid education format from the education model used in the research was an important limitation of the study. Conducting the research solely in one center, the majority of students being women, being with families and cultural differences were the other limitations of the study.

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CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

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