Journal of Positive School Psychology http://journalppw.com
2022, Vol. 6, No. 8, 3839-3865

Efficiency Of Eye Movement Desensitization And Reprocessing Intervention Technique On Public Speaking Anxiety And Self-Esteem Among Undergraduate Nursing Students

Samia Ali El-Nagar[1], Faten Hasan Alam[2], Merfat M. Atia[2], rasha Kamal Mohamed Sweelam[2], Mervat Mostafa Arrab[1], and Elham S. Elzyen[1]

[1] Family and Community Health Nursing, Faculty of Nursing, Menoufia University, Egypt
[2]Psychiatric and Mental Health Nursing, Faculty of Nursing, Menoufia University, Egypt
Corresponding author: Samia.elnagar@yahoo.Com

Abstract:

Background: Public speaking for nursing students is very significant as they will be effective health advocates in the future, and speaking is one of their basic capabilities that are very valuable for professional advancement. Public speaking anxiety is one of challenges that nursing students face in class, clinical settings, and the community.

Aim: To examine the efficiency of eye movement desensitization and reprocessing (EMDR) intervention technique on public speaking anxiety and self-esteem among undergraduate nursing students.

Methods: Quasi-experimental design with pre and post-test (intervention and control group) was employed. This study was performed at faculty of nursing, Menoufia University, Egypt. Systematic random sampling technique was utilized to choose 340 undergraduate nursing students and randomly assigned to one of both groups: intervention or control. The main instruments employed for gathering data involved Personal report of public speaking anxiety scale, Rosenberg self-esteem scale; and subjective units of distress scale.

Results: There was 60.3% of the studied nursing students had a moderate degree of public speaking anxiety at pre EMDR intervention, with no statistically significant difference between both groups ($P>0.05$), while post EMDR intervention revealed significantly reduction in public speaking anxiety level in the intervention group compared to control group and difference between both groups was statistically significant ($P<0.001$). Furthermore, post EMDR sessions showed significantly improvement in self-esteem level in intervention group compared to control group and the difference between both groups was significant ($P<0.001$).

Conclusion: The EMDR approach is useful in lowering speaking anxiety in public, and improving self-esteem among nursing students.

Keywords: EMDR, Nursing students, public speaking anxiety**,** Self-esteem, Undergraduate

1. Introduction

Public speaking is considered one of the best general skills that a student must have [1]. It is recognized as the process of conveying information to a group. It usually occurs at front of a large group of persons, like at school,

work, or home. There are many benefits of understanding how to communicate with an audience that include enhancing critical thinking, communication capacities and self-confidence [2]. According to [3] reported that communication is an important element in providing safe nursing care. Efficient communication enables healthcare process and ensuring safe care in the same time [4]. Patient care demands its healthcare professionals to communicate effectively for not only the patients, but also the other colleagues and doctors in order to deliver best care for patients, ensure an efficient consumption of drugs and promote health [5].

The public speech for nursing students is very significant as they will be excellent health promoters in the later and speaking is one of their basic capabilities. Therefore, these abilities are very useful for professional advancement [6]. Nurses can identify a patient's health needs via communication abilities, because speaking with patients allows nurses to gain a complete understanding of the different patients and their particular features [7]. Public speech techniques are crucial in supporting students' activities. It can enhance professional and academic knowledge, as well as improve overall communication abilities [8].

Public speaking anxiety (PSA) is one of the communication barriers that persons face and it keeps people away from anxiety-inducing presentation situations, however when these situations are essential, these are met with severe anxiety [9, 10,11]. It is believed to be one of most frequent social anxiety complaints [12]. It is a condition that relates to the anxiety experienced by individuals in speaking or preparing to talk in front of an audience [13]. The fear of facing audiences is very frequent in both students when they reach college years and the overall public [9]. According the National Institute of Mental Health revealed that 75% of the global population suffering from particular level of speech anxiety [14]. In college students, it was revealed that 47.4 percent suffered from mild PSA, 48.5 percent had moderate speaking anxiety, and just 4.1 percent had severe PSA [15].

Educational courses assist students in acquiring necessary skills by providing activities like discussion groups, research, and group work, as well as the opportunity to connect and practice in order to prepare for professional career. Despite these activities help majority of students to cope social interactions, they can also generate mental and social problems, like social anxiety while speaking in public or participation in various activities [16]. The common causes of speaking anxiety are poor preparation, fear of being critiqued by the attendees when there is no good performance, anxiety of low self-esteem, audience ignorance, the speaker's lack of experience, fear of making an error, and fear of failure [17,18].

Nursing students are frequently confronted with situations that demand them to speak in public, particularly when doing their tasks in a health facility or in the community and being needed to be health advocates. Most nursing students experience high levels of anxiety as a result of this. The findings of interviews with student nurses revealed that they lacked confidence in speaking. They are frequently tense and anxious, with a rapid heartbeat, warm body, trembling hands and legs [19]. About 30% of nursing students experience anxiety, particularly in certain situations such as assignments, examinations, and presentations. The undesirable social effects faced by nursing students will progressively open the way for the development of disruption in the self-esteem over time, that may negatively lead to poor

academic performance in the future, as nursing is a skill and practice oriented occupation instead gaining theoretical information [20].

Self-esteem in nursing is an essential component of both professional and personal identification. Nursing students are the cornerstone of tomorrow's professional nurses, thus it is essential for university student nurses to be individuals with good self- esteem to ensure safe and competent practice [21]. The person's ability to communicate with others in the environment setting is determined by their communication skills and their sense of self-esteem [22]. Self-esteem is one of the most important psychological requirements as according Maslow's hierarchy of needs; it is the motivating factor for self-actualization and achievement in different life aspects, including social interactions, interpersonal relations, and creative work fields [23]. Persons with low self-esteem and communication skills are more likely to feel nervous and anxious when communicating with others whereas persons with good self-esteem are more likely to be relaxed when communicating with others [22].

Self-esteem is considered to play an important role in social anxiety disorders. Low self-esteem may raise a person's likelihood of developing social anxiety, which also makes him feel bad about himself. Thus continues the negative cycle. Low self-esteem may lead to anxiety that can strengthen the negative image of one self [24]. According to the findings, social anxiety while speaking in public is linked to self-esteem among university students. Persons with high anxiety suffer from a negative self-evaluation and thus are prepared to act on their inconsistency. Students with lower of anxiety have greater self-esteem and compatibility preparations [25] . Concerning to meta-analysis of research studies that examined techniques to relieve PSA showed that psychological interventions technique by health care providers are efficient in lowering the intensity of PSA [26].

Eye movement desensitization and reprocessing (EMDR) is the most recent psychotherapy intervention technique established to handle mental health problems, especially anxiety disorders [27]. EMDR is a desensitization technique that doesn't depend on speaking or pharmacological methods, but instead concentrates on the regular and quick eye movements [28,29]. It performs by distracting as well as rebuilding experiences via eye movements, whereas the individual focused on the past memories to desensitize [30]. This technique entails reprocessing past stressful situations and substituting negative feelings to positive and well-informed chosen ones by individual. Clients were asked to keep in mind the disturbing memories for brief periods whereas trying to move their eyes; as a result the intensity of stimulus is decreased [31].

EMDR approach improves processing of information by reducing barriers to information processing posed by painful memories, allowing the subject's traits to be altered through memory manipulation [29]. It assists clients in learning from unpleasant past experiences, desensitizing current stimuli that are improperly discomforting, and including formats for suitable future events [32]. This strategy has been applied for a variety of age groups and problems, including anxiety disorders [30], low self-esteem [33], sexual violence [34], people suffering from pain [35], and depression, with positive results [36].

1.1. Significance of the study

Nurses play a vital role in the world's health management. Nurses are mainly responsible for health promotion in addition to providing healthcare at hospitals and clinics. As a result, nurses must be able to communicate effectively with clients and the general public in order to

convey ideas, explanations, action methods, and everything else connected to client health and community. Communication is essential in professional fields like nursing. Building communication with the patients is likely an important element of nursing care [37].

The public speaking anxiety is a crucial problem and widespread in nursing students, and it has negative consequences for students' social, professional, and academic achievement [38]. The nursing profession is becoming more challenging and extensive because health science turns its focus from disease treatment to whole-person care. It has encouraged nurses to develop effective professional adaptations. More relationships that are social needed in nursing because it is a social occupation. Nurses should be able to work with patients to build therapeutic interactions. This is only possible if they are self-confident and caring about others, as well as free of social anxiety disorders. In order to function efficiently in their context, nurses must be better in their career [39]. Therefore, students during their college years must learn how to deal with speaking anxiety [40].

EMDR approach is non-invasive, inexpensive, simplistic and evidence-based intervention for negative memories and associated situations [41]. A meta-analysis study showed that EMDR is effective in decreasing anxiety and social phobia signs, as well as somatic and behavioral symptoms [30]. So, the study aim is to examine the efficiency of EMDR intervention technique on public speaking anxiety and self-esteem among undergraduate nursing students.

1.2. Aim of study:

To examine the efficiency of eye movement desensitization and reprocessing intervention technique on public speaking anxiety and self-esteem among undergraduate nursing students.

1.3. Research hypotheses and questions:

Research hypotheses:

1. The intervention group that receives the eye movement desensitization and reprocessing intervention technique (EMDR) will have experience a lower level of public speaking anxiety than the control group.
2. The intervention group who will receive the EMDR intervention technique will have higher self-esteem level than the control group.
3. The intervention group that receives the EMDR intervention approach will have a lower mean score of public speaking anxiety and subjective feeling of distress, but a higher mean score of self-esteem than the control group.

Research questions

1. What is the public speaking anxiety level among studied groups of undergraduate nursing students?
2. What is the level of self-esteem among studied groups of undergraduate nursing students?
3. Is there a correlation between public speaking anxiety, self-esteem and subjective units of distress?

2. Methods

2.1. Design

To achieve the study's aim, a quasi-experimental design with pre and post-test (study and control group) was utilized.

2.2. Setting

This study was performed at faculty of nursing, Menoufia University in Shein El-Kom City, Egypt. It was established in 2000 by

Presidential decision No. 200 of 2000 that offered for converting "higher Institute of Nursing" that formed in 1987 to the "Faculty of Nursing." Now, the "Faculty of Nursing" has eight departments: Family and community health nursing, Psychiatric mental health nursing, Adult health nursing, Maternal health and neonatal nursing, Pediatric nursing, Nursing management, Critical care nursing and Geriatric nursing. The overall students' number enrolled in the college is 2500 at 2021 academic year.

2.3. Sample

Systematic random sampling was utilized to choose the study subjects. It comprised of 340 undergraduate nursing students. Eligibility criteria: aged 19 to 24 years old, both sexes and registered in the first to fourth academic years at faculty of nursing, Menoufia University. Criteria for exclusion have included students with mental illness history, drug misuse history, pregnancy and seriously ill. The entire sample of nursing students was divided at random into two equal groups: intervention group (170) and control group (170). **Sample size calculation:** In order to calculate the sample size Epi website was used (Open Source Statistics for Public Health)*, with the following sample size equation: Sample size n = [DEFF*Np (1-p)]/ [$(d^2/Z^2_{1-\alpha/2}$*(N-1)+p*(1-p)].

We used 95% confidence intervals, with a sample size of 337 participants. However, we approximate this number to 340 nursing students as this study sample size. Then a proportional allocation sets the sample size in each stratum of university year equal to be proportional to the number of total nursing students in that stratum. That is, $n_s/N = P$. where:

n_s= Total number of nursing students in each stratum of university year.

N= Total number of nursing students in faculty of nursing.

P= proportion of total number of nursing students in each stratum of university year / Total number of nursing students in faculty of nursing.

The proportional distribution of sample size was: 0.32 for first year, 0.30 for second year, 0.20 for third year**,** and 0.18 for fourth year. Accordingly, the distribution of the total sample size was: 109 for first year, 102 for second year, 68 for third year, and 61 for fourth year. Because the precision of the estimates can often be improved by allocating more of the sample to the smaller strata [42], we allocate more sample to both the third and fourth university years to become 70 nursing students for each, and 100 nursing students for each first as well as second university year.

2.4. Study instruments

The following study instruments used to gather data:

1. **Self-administered Questionnaire:** It was created by researchers based on an analysis of relevant literature that includes socio-demographic properties as student's age, name, gender, residence, academic year, parent's educational level and income of the family.
2. **Personal Report of Public Speaking Anxiety Scale (PRPSA)**:

The PRPSA scale was formed and tested by [43]. It was employed in this study to evaluate public speaking anxiety level among undergraduate nursing students. This involved a thirty four items, with 22 of which were negative structures besides 12 were positive and every item were graded on a five- point likert scale, with 1 being strongly disagree and 5 being strongly agree. In analyzing the data, the positive constructed PRPSA items were reversed scoring, thus rising scores represented

greater public speaking anxiety. The method for PRPSA scoring: To obtain the final PRPSA score, the values from each of the questions were collected and entered into the following formula: [PRPSA =72 – positive structured items + negative structured items]. The overall score was between 34 to 170 points. PRPSA total score were being classified as low public speaking anxiety level <98, moderate 98 –131, and high >131. The instrument's reliability was assessed utilizing Cronbach alpha to determine the internal consistency of the questionnaire's elements. The Cronbach alpha analysis revealed a value of 0.90 that interpreted as a good coherence between the items.

3. Subjective Units of Distress (SUD) Scale:

The SUD scale was developed by Wolpe [44] and validated via Kim et al [45]. It used in the current study to assess the subjective level of distress or anxiety as a result of remembering a negative feeling experience or image related to public speaking that a student is currently experiencing. It is a self-reporting rating scale ranged from zero to ten points. After student has recognized his or her a negative feelings, ask the students to rate their degree of distress or anxiety on a scale of 0-10. A score of zero represents no distress or anxiety, while a score of ten represents the greatest level of distress or anxiety. SUDS scores provide actual and baseline information regarding a person's state at the starting and ending of EMDR intervention technique, as well as any improvements that may have occurred during the sessions. The SUD-scale is widely utilized in studies involving EMDR [32].

4. Rosenberg Self-Esteem Scale:

The self-esteem scale was designed by [46]. It was utilized in the present study to examine self-esteem level among undergraduate nursing students. It encompasses of ten items self-report tool with five of them were positive items as well as five negative items. The items were graded on a four-point likert scale (0-3), with students replies extending from strongly disagree to strongly agree. The negative items were reversed when computing the overall score. The greater the total score, the greater student's self-esteem. The range of scores varies from 0 to 30. Scores of less than 15 indicate poor self-esteem; scores from 15 to 25 were considered within normal range; while scores of more than 25 indicate good self-esteem. Cronbach's alpha for self-esteem scale was α= 0.86, indicating that the internal consistency of the scale was acceptable.

2.5. Instruments' validity

The personal report of public speaking anxiety and Rosenberg self-esteem scales were translated from English to Arabic by a translation consultant, then returned to English via English language professor with experience in questionnaire translations. A panel of three professionals in the areas of psychiatric health nursing and medicine, besides family and community health nursing were evaluated the content validity of the Arabic version of the instruments. According to the panel's recommendations, differences were reviewed and corrected.

2.6. A pilot study

A pilot research using 10% of nursing students was done to determine the tool's clarity, appropriateness, and the amount of time required to fill the questionnaire. Some questions were modified and clarified based on the findings of a pilot study. To confirm that the responses were consistent, the pilot sample was not involved in the current research total sample.

2.7. Ethical considerations

When conducting the study, all ethical rules were considered. The ethical research committee approval was gained from faculty of nursing, Menoufia University. The students were aware that their involvement in the study was voluntary and that they had the freedom to reject; their privacy and confidentiality were maintained. Students' consent form to participate in the study was also gained after the study's purpose was explained to them.

2.8. Data collection process: This data was collected using the following steps:

- Data was collected throughout a four-month period starting in February and completing in May 2021.
- Study tools were prepared based on literature that involve all aspects of a problem via periodic papers, books and internet sources intended for public speaking anxieties.
- The required permission was received from the dean of the Faculty of Nursing, Menoufia University, after sending a letter to them outlining the purpose of the study and the methodology of the study in order to obtain approval.
- The researchers started collecting data after clarifying the aim of this study and gaining informed written consent from university nursing students who fulfilled the inclusion criteria, they were required to complete socio-demographic information, personal report of public speaking anxiety questionnaire, and Rosenberg self-esteem scale.
- The researchers supervised the completion of the questionnaire during session hours. This was done by explaining to the selected students why this was being done and giving those instructions on how to complete questionnaire before it was handed out. The average time required to complete the questionnaires was 20-25 minutes. The data collected was utilized as a baseline evaluation (pre -test).

Intervention

- Every student was assigned to one of two groups at random (intervention group or the control group). The intervention group received EMDR technique whereas control group did not receive any interference.
- Before performing the intervention, researcher initially described the EMDR procedure to the selected nursing students in the intervention group and built professional relationship with them.
- The EMDR intervention technique was implemented via trained professional researchers at Psychiatry Center for a week.
- The intervention group of nursing students was classified into groups, each group comprised of ten students.
- This technique was carried out for each group twice a week on various days throughout period of three weeks, for 5 to 6 sessions based on their improvement and each session lasting approximately 45 to 90-minutes according to the EMDR procedure.
- During every intervention session, the intervention was carried out in eight stages accordance with the EMDR standard technique [32].
- The first stage (History taking) comprises a complete history of student was acquired as well as gathering information about the circumstances that led to abnormal mental responses and the stimulus that induced these reactions. Nurse students were asked to tell regarding their past experiences with public speaking at front of a large group of persons, like at university, hospital, or home, and anxiety-related to speaking in

public, besides they asked to identify the traumatic experience that has caused the most discomfort to them. In addition to taking a complete history and completing proper assessments, as well as collaborating with the client to identify potential goals of care involving past memories, present stimulates, and future goals.

- During the second stage (preparation) it included the establishing a trusting relationship with the student during the preparation phase and teaching them anxiety- reduction techniques such as deep breathing, muscles relaxation that they can utilize in and between sessions. Also, explaining the EMDR procedure and its impacts, as well as confidentiality besides clarifying the goal of EMDR technique. As a result, the student begins to feel more confident and comfortable.
- In the third stage (Assessment) student was asked to recognize and concentrate on the greatest distressing picture associated with public speaking in front of a group as well as negative feelings about the experience and body reactions associated with this event. Then, students were instructed to detect the positive and desired thought in order to substitute the negative and unwanted feelings with the positive ones. The common negative thoughts and feelings involve statements like "I'm powerless to produce better public speaking skills, I'm worthless, I'm very bad, I'm afraid of forgetting everything", etc. While the positive cognition examples include "I'm capable of speaking well in public, I can deal with anything that occurs, I can do my greatest to succeed in public speaking, I'm confident in my abilities, I have the sufficient strength". During the phase of assessment, student was asked to indicate the intensity of negative feelings via SUD scale ranged of 1 to 10 score.
- During the fourth stage (Desensitization) student was requested to emphasis on a single negative thought, image and bodily reaction linked to public speaking in front of group of audience. Then, asked to follow movements of the researcher's fingertip from side to side and conversely along through his visual field in a sequence of 12–24 cycles of eye movements till the self-reported anxiety associated with public speaking was reduced.
- The fifth stage (Installation) comprises that the student was instructed to remember and focus on a particular positive feeling then continue to receive the eye movements' technique while concentrating on a positive image until it reached the maximum degree of acceptance.
- In the sixth stage (Physical scan) participant was encouraged to concentrate on any residual bodily discomfort or tensions that result from public speaking anxiety and assess a problem.
- The seven stage (Closure) is used to end each session, the student was advised to identify any disturbing pictures, feelings, or emotions experienced throughout procedure. If the distressing event was not handled properly during the session, the student is guided to use self-relaxation techniques to re-establish emotional stability and keep it controlled and safe until next session. Closure stage assures that the participant feels better at the end of the session than they experienced at the starting.
- The eight stages (re-evaluation) occurs at the beginning of each EMDR session (except for the first session). It involves evaluating the outcomes of the previous session and re-evaluating the degree to

which therapeutic aims of EMDR had been met**.**

- The posttest was carried at the ending of intervention period (two months) by using same pretest scale as personal report of public speaking anxiety, Rosenberg self-esteem and subjective units of distress for the intervention and control groups.

2.9. Statistical analysis

The data was entered and analyzed using Statistical Package for Social Science (SPSS) version 22. Graphics were prepared by Excel program. Quantitative variables were presented by mean (X) and standard deviation (SD) if these variables were approved to be normally distributed (by histogram and Kolmogorov as a confirmatory test). The Independent -sample t test was utilized for comparison between two means of intervention and control groups for pre- intervention, as well as post intervention. Pearson correlation coefficient (r) was employed to examine the correlation between public speaking anxiety, self-esteem and subjective units of distress. Qualitative data were presented in the form of frequency distribution tables, number and percentage. It was analyzed by chi-square ($\chi 2$) test. Level of significance was set as P value <0.05 for all significant tests.

3. Results:

This study comprised of 340 undergraduate nursing students divided randomly into both groups: Intervention group and the control group. The average age of the both groups was 20.93±1.33years, 72.1% of them were females, and more than three fourths (79.4%) reside in rural regions. In terms of parental education, 48.5% of fathers and 43.8% of mothers had a moderate level of education, while 34.4 of fathers and 35.9% of mothers had a high education. More than half (52.6%) of students reported that their family income per month was sufficient, while 47.4% reported that their income was limited or insufficient with no statistically significant difference between the both groups regarding all items of socio-demographic characteristics (P>0.05) (Table 1).

Figure 1 illustrates the levels of PSA among the total nursing students. It reveals that the majority (60.3%) of the studied nursing students had a moderate degree of public speaking anxiety (PSA), 34.1% had a low level and just 5.6% had a high level.

Table 2 presents the PSA levels among the studied groups. The majority of the intervention and control groups had moderate level of PSA (57.1% and 63.5% respectively), followed by low levels of PSA (38.8% and 29.4% respectively), then the high level of PSA (4.1% and 7.1% respectively), with no statistically significant difference between both groups (P>0.05). In addition, the mean total score of PSA was 105.6±16.8 with no statistically significant differences between the intervention (104.7±18.5) and control groups (106.6±14.9) (t=1.1 p >0.05). This result replies to the first research question, ‘‘what is the PSA level among studied groups of undergraduate nursing students?"

Figure 2 demonstrates self-esteem levels among the total studied nursing students. It shows that the majority of nursing students (72.4%) had a normal self-esteem level, 21.2% had a poor level and only 6.5% had a high level.

Table 3 shows levels of self-esteem among the studied groups. The majority of both groups had within normal level of self-esteem (74.1% and 70.6% respectively), followed by poor level of self-esteem (18.8% and 23.5% respectively), and good self-esteem (7.1% and 5.9% respectively) with no statistically significant difference between both groups (P>0.05). Furthermore, the mean overall self-

esteem score was 18.19±4.1 with no significant differences between the intervention (17.9±3.9) and control groups (18.4±4.1) (t=0.87, p>0.05). This finding answers the second research question ‘‘what is the level of self-esteem among studied groups of undergraduate nursing students?"

Figure 3 shows PSA levels among the study groups pre and post EMDR intervention. It illustrates that at pre intervention, the majority of intervention group (57.1%) and control group (63.5%) of nursing students had a moderate level of PSA with no statistically significant difference between both groups (X^2 =4.1, P=0.12), whereas post EMDR intervention technique revealed a significant improvement in the different PSA levels among intervention group compared to control group (p<0.001). The low level of PSA in the intervention group was increased post EMDR intervention from 38.8 % to 60%, while both moderate and high levels decreased from 57.1% to 37.1% and 4.1% to 2.9% respectively, compared to PSA levels in the control group remained nearly the same and the difference between both groups was statistically significant (X^2 =35.1, P<0.001). This finding matches the first research hypothesis, which reported that the “Intervention group who will get the EMDR intervention approach will have experience a lower level of PSA than the control group".

Figure 4 demonstrates self-esteem levels among the study groups pre and post EMDR intervention. It reveals that at pre intervention, most of intervention group (74.1%) and control group (70.6%) of nursing students had a normal level of self-esteem with no statistically significant difference between both groups (X^2 =1.2, P>0.05), whereas post EMDR intervention technique showed a significant improvement in the different self-esteem levels among intervention group compared to control group (p<0.001). The poor level of self-esteem in the intervention group was decreased from 18.8 % to 4.7% post EMDR intervention approach, while both within normal and good levels increased from 74.1% to 85.9% and 7.1% to 9.4% respectively, compared to self-esteem levels in the control group and the difference between the two groups was statistically significant (X^2 =18.5, P<0.001). This outcome confirms the second research hypothesis, which suggests that the “Intervention group that will obtain the EMDR intervention approach will have higher degree of self-esteem than the control group".

Table 4 reveals that post EMDR intervention technique, the mean total score of PSA was statistically significant decreased in the intervention group from 104.7 ± 18.57 to 92.4 ± 15.7 (t= 18.9, P<0.001), while it remained nearly the same in the control group (106.6 ± 14.9 and 106.8 ±14.7) (t= 1.23, P>0.05). The difference between both groups post intervention in the mean total score of PSA was significant (t=8.7, p<0.001). The mean total score of self-esteem was increased significantly post intervention in the intervention group from 17.9 ± 3.9 to 20.9 ± 3.4 (t= 12.4, P<0.001), while it is still nearly the same in the control group (18.4 ± 4.1 and 18.1 ±3.6) (t= 1.57, P>0.05), and difference between both groups was statistically significant post intervention (t=7.3, p<0.001). Besides, mean total score of subjective felling of distress was decreased in the intervention group post EMDR intervention from 5.7 ± 1.6 to 2.8 ± 1.3 (t= 17.49, p<0.001), while it remained almost the same in control group (5.7 ± 1.5 and 5.7 ±1.4) and the difference was significant between both groups post EMDR intervention (t=18.3, p<0.001). This finding supports the third research hypothesis which stated that ‘‘Intervention group who will receive the EMDR intervention technique will have a lower PSA mean score as well as subjective

distress, but will have higher mean score of self-esteem than the control group".

Table 5 illustrates that there was a significantly negative correlation between the total score of PSA and score of self-esteem (r = -.271, P= 0.000). This means that a lower level of public speaking fear was linked with a higher self-esteem. Moreover, there was a significantly positive association between PSA total score and SUD score (r = .795, P= 0.000). This indicates that a higher level of anxiety about public speaking was associated with a higher level of subjective anxiety or distress. Also, there was a significant negative correlation between the total score of self-esteem and SUD score (r= -.179, P= 0.000). This reveals that a higher level of self-esteem was associated with a lower level of subjective distress. This result answers the third research question "Is there a correlation between PSA, self-esteem and subjective units of distress?"

Table 1 Distribution of socio-demographic data among the studied groups (N=340)

Socio-demographic data	Groups				Total		Test	P-value
	Intervention		Control					
Age (Year) Mean ±SD	20.92±1.2		20.96 ±1.3		20.93±1.33		t=0.32	0.75
Sex :	No.	%	No.	%	No.	%		
Male	50	29.4	45	26.5	95	27.9	χ^2=0.37	0. 54
Female	120	70.6	125	73.5	245	72.1		
Residence								
Rural	140	82.4	130	76.5	270	79.4	χ^2=1.81	0.18
Urban	30	17.6	40	23.5	70	20.6		
Academic years								
First	52	30.6	48	28.3	100	29.4		
Second	44	25.9	56	32.9	100	29.4	χ^2=2.17	0.53
Third	36	21.2	34	20	70	20.6		
Fourth	38	22.3	32	18.8	70	20.6		
Mother's education								
No read and write	12	7.1	11	6.5	23	6.8		
Basic education	18	10.6	28	16.5	46	13.5	χ^2=4.6	0.19
Moderate education	83	48.8	66	38.8	149	43.8		
High education	57	33.5	65	38.2	122	35.9		
Father's education								
No read and write	10	5.9	4	2.4	14	14.2		
Basic education	18	10.6	26	15.3	44	12.9	χ^2=6.2	0.10
Moderate education	77	45.3	88	51.8	165	48.5		
High education	65	38.2	52	30.5	117	34.4		
Family income								
Easily enough	87	51.2	92	54.1	179	52.6		
Hardily enough	70	41.2	59	34.7	129	37.9	χ^2=2.2	0.33
Not enough	13	7.6	19	11.2	32	9.5		

Total	170	100	170	100	340	100.0		

Figure 1 Public speaking anxiety levels among the studied undergraduate nursing students (N=340)

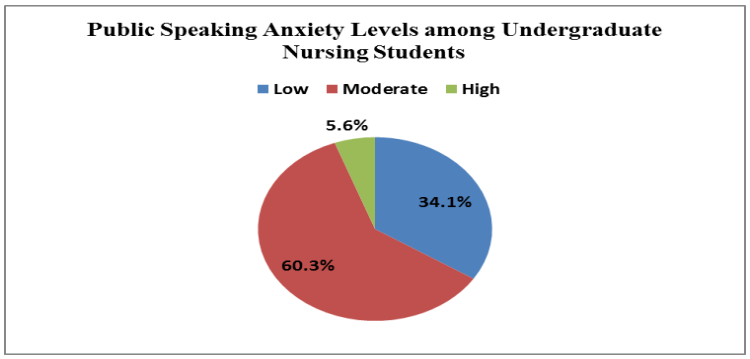

Table 2 Public speaking anxiety levels among the study groups of undergraduate nursing students (N= 340)

Public speaking anxiety	Groups				Total		Test of significant	P-value
	Intervention		Control					
	No.	%	No.	%	No.	%		
Public speaking anxiety level							χ^2=4.1	0.12
Low	66	38.8	50	29.4	116	34.1		
Moderate	97	57.1	108	63.5	205	60.3		
High	7	4.1	12	7.1	19	5.6		
Total	170	100.0	170	100.0	340	100.0		
Mean total score	104.7±18.5		106.6±14.9		105.6±16.8		t=1.1	0.29

Figure 2 Self-esteem levels among the studied undergraduate nursing students (N=340)

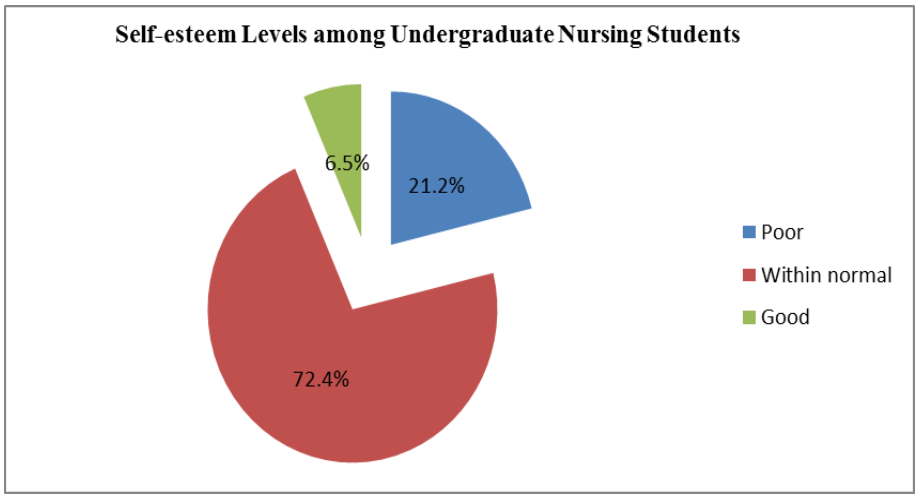

Table 3 Distribution of self-esteem levels among the study groups of undergraduate nursing students (N= 340)

Self-esteem	Groups				Total		Test of significant	P-value
	Intervention		Control					
	No.	%	No.	%	No.	%		
Self-esteem level Poor Within normal Good	32 126 12	18.8 74.1 7.1	40 120 10	23.5 70.6 5.9	72 246 22	21.2 72.4 6.5	χ^2==1.2	0.54
Total	170	100	170	100	340	100.0		
Mean total score	17.9±3.9		18.4±4.1		18.19±4.1		t=0.87	0.38

Figure 3 Distribution of public speaking anxiety levels among the study groups pre and post EMDR intervention (N= 340)

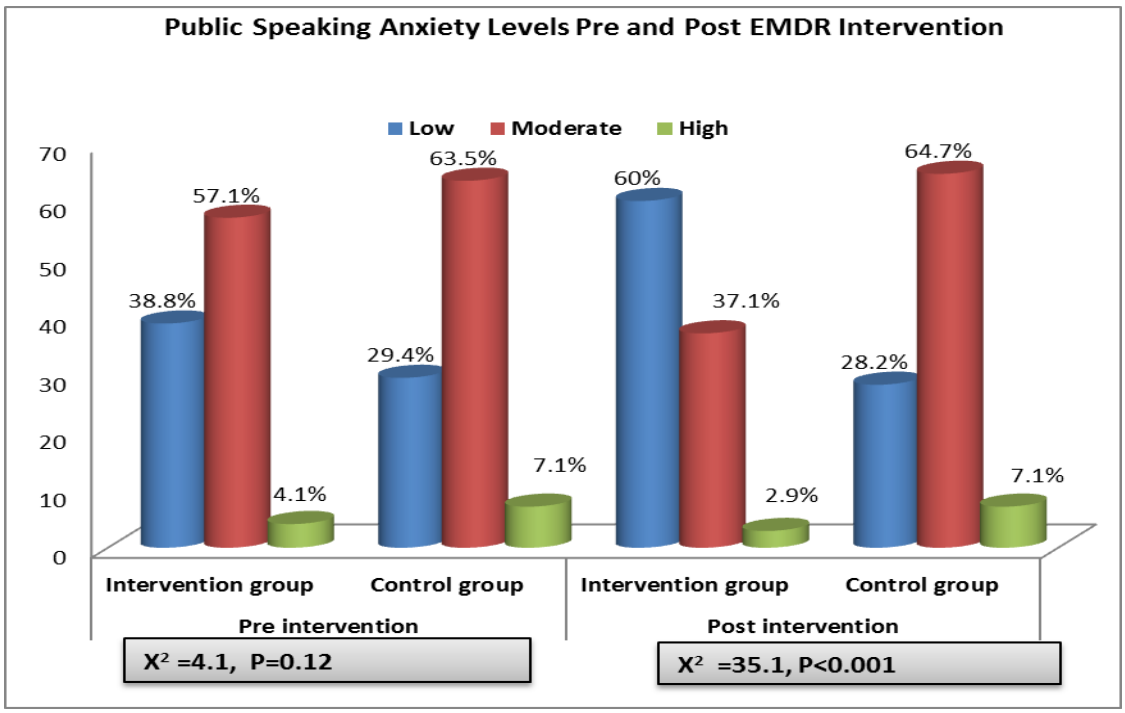

Figure 4 Distribution of self-esteem levels among the study groups pre and post EMDR intervention (N=340)

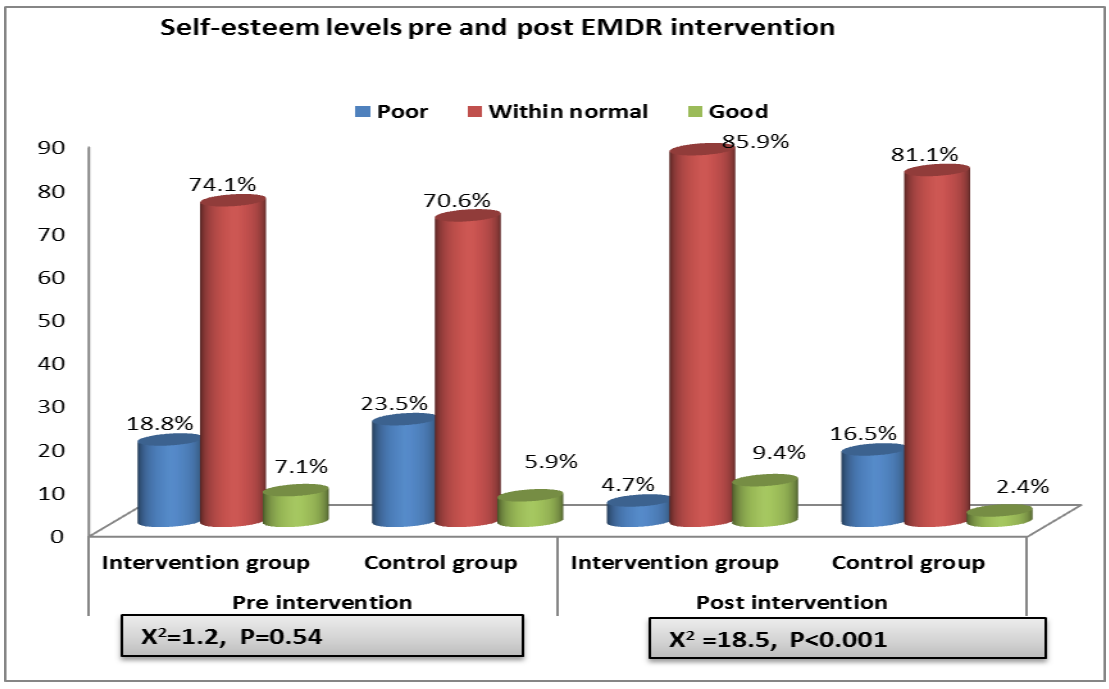

Table 4: Distribution of mean total score of public speaking anxiety, self-esteem, and subjective units of distress among the studied groups pre and post EMDR intervention (N= 340)

Variables	Intervention group	Control group	t-test	P value
	Mean ± SD	Mean ± SD		
Public speaking anxiety				
Pre intervention	104.7±18.57	106.6±14.9	t=1.1	0.29
Post intervention	92.4±15.7	106.8±14.7	t=8.7	P<0.001
P value	t= 18.9, P<0.001	t= 1.23, P>0.05		
Self-esteem				
Pre intervention	17.9±3.9	18.4±4.1	t=0.87	P=0.38
Post intervention	20.9±3.4	18.1±3.6	t=7.3	P<0.001
P value	t= 13.4, P<0.001	t= 1.67, P>0.05		
Subjective units of distress				
Pre intervention	5.7±1.6	5.7±1.5	t=0.10	P=0.92
Post intervention	2.8±1.3	5.7±1.4	t=18.3	P<0.001
P value	t= 17.49, P<0.001	t= 1.62, P>0.05		

Table 5: Pearson correlation (r) matrix between total score of public speaking anxiety, self-esteem, and subjective units of distress levels among the study groups (N= 340)

Variables	Public speaking anxiety	Self-esteem	SUD
Public speaking anxiety		r= -.271**	r= .795**
		P= 0.000	P= 0.000
Self-esteem	r= -.271**		r= -.179**
	P= 0.000		P= 0.001
SUD	r= .795**	r= -.179**	
	P= 0.000	P= 0.001	

****.** Correlation is significant at the 0.01 level (2-tailed).

SUD: Subjective units of distress

4. Discussion

Communication skills like public speaking are essential for nursing students in order to listen to the patient's feelings as well as describe nursing procedures. Communication is one of the ways that nurses keep good collaboration with clients in order to help them achieve their health needs, and with other health care workers in order to help clients handle client issues. When nurses interact with other health care professionals, effective communication is beneficial and plays a role in client recovery. It also has an impact on the satisfaction of client and family, as well as it is crucial in order to improve the quality of nursing care. Nurses who have the ability to communicate effectively will have no trouble in developing relationships with patients and their families [47].

The demand for public speaking skills is also increasing because persons advance in their careers; they are more likely to introduce and

speak in group meetings, seminars, and conferences and express their views on the issues at hand. However, because of public speaking anxiety (PSA) some individuals become restless when they must speak in front of an audience. Speaking anxiety is one of the challenges that nursing students confront in class, in clinical settings, and in the community. Students should be educated to deal effectively with unwanted challenges by taking steps to eliminate or reduce PSA [19]. Thus, the overall aim of this study was to examine the efficiency of eye movement desensitization and reprocessing (EMDR) intervention technique on PSA and self-esteem among undergraduate nursing students.

Speaking anxiety in public is one of most frequent social anxiety complaints [12]. It is very frequent in both students when they reach college years and the overall public [9]. Several studies showed that nursing students during their collage face a higher levels of anxiety than medical students and other non-nursing students [48]. According the current findings revealed that at pre EMDR sessions, sixty percent of nursing students groups had a moderate degree of PSA, more than one third had low level and six percent had a high level with no statistically significant difference between both groups. This finding could be due to lack of communication skills, experience and fear of being critiqued by the audiences when there is poor performance among nursing students who are frequently confronted with situations that demand them to speak well in public particularly when performing their tasks in a facility or in the community and being needed to be become health promoters. Because of this, most nursing students experience different levels of anxiety. This result was consistent with Hidayoza et al., [10] who conducted a study to "assess the level of PSA, coping strategies, and the relationship between the level of PSA and coping strategies at Unit Kegiatan Bahasa Asing". This research work revealed that most students experience moderate levels of PSA using the personal report of public speaking anxiety scale. Beside, Naser & Isa [49] who performed a quantitative research study intended to recognize the PSA in oral presentation class among UiTM Shah Alam undergraduates using public speaking classroom anxiety scale. This indicated that more than half of students experienced a medium level of anxiety, which is consistent with other studies performed by Idrus (2021) [50] and Sim et al., [51]. Likewise, Marinho et al., [52] who carried a study to identify the "prevalence of public speaking fear among college students and its relationship with socio-demographic characteristics". This study results showed that the majority of college students in Brazil who were registered in health sciences had reported a PSA.

On the other hand, these findings were inconsistent with [53] who explored the categories of the PSA among college students at department of psychology and medical, faculty of medicine, university of Syiah Kuala". This study employed the personal report of public speaking anxiety scale to estimate categories of the PSA, found that forty seven point four percent of college students had low anxiety in public speaking, forty eight point five percent in the moderate category of PSA, but only four percent in the high category of speaking anxiety in public . Also, inconsistent with Gallego et al., (2020) [38] assessed PSA among university students that selected from the "department of education and the language Centre at the university of Jyväskylä". According to the results of this study, fifty percent of students had recorded high anxiety, forty percent reported moderate anxiety, and only eight percent had low anxiety by personal report of communication apprehension scale. On the contrary, Pontillas (2020) [54] who examined effect of "popsispeak on reducing

the PSA in English subjects language colleges students in Philippines". This showed that about fifty-seven percent had moderate PSA, while thirty five point seven percent had a high level of PSA, and only seven percent had low PSA level. The disparities in PSA levels between the current study and the previous studies could be attributable to differences in sample sizes, students' fields of study, measuring instruments, and sociocultural variables.

Self-esteem is the extent to which a person respects herself or himself. The level of self-esteem of the students has a significant impact on whether they have successfully or ineffectively adjusted to the problem. The student with high self-esteem exhibits self-confidence and has positive anticipations in new situations [55]. The current study showed that the majority of the studied nursing students groups had normal levels of self-esteem, followed by less than one-fourth had poor level of self-esteem while six point five percent had good self-esteem levels with no statistically significant difference between both groups. These findings were consistent with Kumar (2020) [56] evaluated "social anxiety and self-esteem among nursing students in nursing colleges at Trivandrum district in State of Kerala". This study used Rosenberg self-esteem scale to assess self-esteem levels among nursing students and revealed that the most of the students had normal self-esteem followed by low self-esteem then high self-esteem degree. Moreover, results of [57] studied "self-esteem levels among university nursing students in a college of nursing at Bangalore, Karnataka". This showed that the majority of participants reported experiencing normal self-esteem level, while less than one third reported having low self-esteem and none of the participants revealed a high level of self-esteem. Beside Ketat et al., [55] conducted a cross sectional study to "determine the prevalence and factors predisposing to low self-esteem among university students in Southern Tunisia". This revealed that about thirty percent of university students had low self-esteem. Furthermore, Nandan, (2021) [58] studied" self-esteem among the nursing students in institutions of Noida ". This study used Modified Rosenberg's self-esteem scale, and showed that more than half of nursing students had a moderate level of self-esteem , followed by about one fourth had a high of self-esteem levels while seventeen percent had poor level of self-esteem. Similarly, results of Velmurugan et al., [21] reported that about two thirds of nursing students from various colleges at Bangalore had normal level of self-esteem while about one fourth out had self-esteem low and about eleven percent had high self-esteem level using Rosenberg's self-esteem scale. On the contrary, Murad (2020) [25] examined "social anxiety in relation to self-esteem among university students in Jordan". This indicated that the most of participants had a high-level self-esteem. The variation in self-esteem levels between the current and previous studies could be attributed to differences in the scale used as well as the cut-off point for estimating self-esteem levels.

Regarding the correlation between PSA and self-esteem, the current study showed that there was a significantly negative correlation between the total score of PSA and score of self-esteem. This might be because the student's ability to communicate with others in the environment setting is determined by their communication skills and their sense of self-esteem. Persons with low self-esteem and communication skills are more likely to feel nervous and anxious when communicating with others whereas persons with good self-esteem are more likely to be relaxed when communicating with others. The present outcome was consistent with [59] who studied " self-esteem, self-consciousness and social

anxiety among college students". This showed a negative correlation between self-esteem and social anxiety. Similarly, Murad (2020) [25] revealed that the level of social anxiety and self-esteem among university students in Jordan had a statistically significant negative association. Furthermore, the negative association between self-esteem and social anxiety has been demonstrated in several studies. For example, self-esteem had found to be a significant predictor of social anxiety in a survey conducted in Pakistan [60]. Additional study in China revealed that increased self-esteem was associated with low social fear in Chinese undergraduate students, indicating that self-esteem improvement can be utilized as a preventive psychotherapy to minimize social anxiety [61]. Moreover, Kumar [62] performed a study among students at Indian institute and found that PSA was adversely associated with self-esteem. On the contrary, this result was inconsistent with Kumar, (2020) [56] conducted a descriptive correlational study on "social anxiety and self-esteem among nursing students". According to the study's findings, there was no significant relationship between self-esteem and social anxiety among students nurses. The explanations for this difference could be due to the various characteristics of the studied samples.

EMDR is the most recent psychotherapy intervention technique established to handle mental health problems, especially anxiety disorders [27]. According to a review of study in this area by Shapiro [28] reported that EMDR allows health personnel to rapidly detect and successfully control their unpleasant experiences through memory processing and it can help to treat physical and psychological difficulties. In the nursing career, nurses should be able to speak well because they communicate continuously in the work environment in the front of large groups of persons for educating patients or in training. Therefore, students during their college years must learn how to deal with speaking anxiety [40]. EMDR strategy has been applied for a variety of age groups and problems, including anxiety disorders [30], low self-esteem [33] and depression, with a positive results [36].

According to the results of the current study, revealed a highly significantly reduction in the PSA level and its mean score post EMDR intervention sessions in the intervention group, compared to PSA levels and mean score in the control group and the difference between both groups was statistically significant. This result was in the same line with a meta-analysis study performed by [30] showed that EMDR is effective in decreasing anxiety, and social phobia signs besides somatic and behavioral symptoms. Furthermore, Rezaei, (2020) [63] conducted a study aimed at investigating the "effectiveness of the EMDR therapy on the fear of negative evaluation and social anxiety of female students in Northeastern Iran". This showed that EMDR strategies assisted female students in reducing their anxiety of negative evaluation and their social phobia. Moreover, Aslani et al., (2014) [64] evaluated "effectiveness of EMDR therapy on PSA of university students". This study revealed that EMDR is efficient in lowering symptoms of speaking anxiety among university students and improving the confidence of speaker measures in the experimental group, however no difference was seen in the control group. Additionally, Hekmatiyan fard et al., (2021) [65] investigated the "effectiveness of EMDR therapy on the anxiety speech and educational self-efficacy in students with social anxiety in the Persian Gulf University". The outcomes demonstrated a strong difference between the experimental and control groups' mean posttest scores, indicating that EMDR can decrease anxious speech, social anxiety, and enhances student self-efficacy. Similarly results of Kaptan et al., [66] who performed "a systematic

review of randomized and nonrandomized trials on group protocols of EMDR therapy for treating a range of mental health difficulties in adults and children studied". The results indicated that EMDR procedures could be an effective way of enhancing a variety of mental health concerns, such as post-traumatic stress disorder, depression, and anxiety.

Regarding the influence of EMDR intervention sessions on self-esteem of the studied nursing students, the current study findings showed significantly improvement in the self-esteem level as well as its mean score among the intervention group post EMDR sessions compared to self-esteem levels in the control group and the difference between both groups was statistically significant. From the viewpoint of the researchers, EMDR helps students to substitute these negative feelings with positive feelings such as feeling confident and motivated and beliefs of empowerment, as well as self-appreciation. The present result was in agreement with Oh et al., (2018) [67] who performed a study "aimed to evaluate the effects of the EMDR integrative group treatment protocol on the depression, anxiety, post-traumatic stress, self-esteem in graduate nursing students". According the results of this study reported that after achieving eight sessions of EMDR integrative group treatment, there were meaningful differences in self-esteem between the experimental and control groups. The results showed that this approach could be used to reduce anxiety and enhancement self-esteem in graduate student nurses. On the same line, a randomized controlled trial via Griffioen et al., [33] who investigated "the effect of EMDR therapy and cognitive behavioral therapy (CBT) on low self-esteem in a general psychiatric secondary health care population". This result revealed that both EMDR and CBT had the likely to be successful interventions for individuals with poor self-esteem and a wide spectrum of associated psychiatric illnesses when provided in sufficient numbers of sessions. Similarly, results of Wanders et al., [68]"compared EMDR with CBT for children with self-esteem and behavioral problems". This concluded that the effects of EMDR and CBT on behavioral and self-esteem issues showed to be significant. Despite the minor variations in the effectiveness between EMDR and CBT, the young people who underwent EMDR initially demonstrated considerably bigger changes in target behaviors than the CBT group. The findings supported the use of EMDR to improve students' self-esteem and related issues.

Regarding the outcome of EMDR intervention sessions on subjective distress or anxiety in the nursing students using SUD scale, the current finding found that post EMDR intervention sessions, the mean total score of SUD was statistically significant decreased in the intervention group compared to control group, and the difference both groups post EMDR intervention was significant ($t=18.3$, $p<0.001$). This finding supported the third research hypothesis which stated that ‘‘intervention group who will receive the EMDR intervention technique will have a lower PSA mean score as well as SUD, but will have a higher mean score of self-esteem than the control group''. The present results were consistent with Goga et al., (2022) [69] who utilized SUD scale to determine if the EMDR with virtual assistant system procedure improved negative thoughts and feelings associated with the traumatic event. According to the study finding, there was a significant reduction in SUD scores from pre- to post-intervention. These findings suggested that the EMDR approach had a lot of capacity and successful in reducing anxiety, distress, and negative thoughts and feelings related to traumatic situations. Similarly results of a ameta-analysis of randomized controlled trials

by Chen et al., [70]concluded that EMDR therapy significantly decreases posttraumatic stress disorder (PTSD) symptoms, anxiety, and subjective distress in PTSD patients. Moreover, Jangir et al., [71] investigated the impact of behavior modification techniques on reducing PSA among school students. This finding showed that students had significantly lower mean PSA scores, as well as lower SUD scale mean scores, and higher self-esteem scores after intervention with behavior modification techniques.

Concerning the correlation between PSA total score and subjective units of distress (SUD) score, the present research revealed that there was a significantly positive association between PSA total score and SUD score. This indicated that a higher score of anxiety about public speaking was associated with a higher score of SUD. This result was congruent with Parrish et al., [72] examined" feasibility of virtual reality for adolescent social anxiety disorder". This study showed that adolescents with social anxiety disorder experienced significantly greater SUD in the public speaking than those without social anxiety disorder. Similarly, Faria & Vijaya [73] assessed" distress, self-esteem and PSA among teaching faculty". This study revealed that there was a significant relation between distress and PSA.

As regarding correlation between the total score of self-esteem and SUDS score, the current research result reported that there was a significant negative correlation between the total score of self-esteem and SUD score. This revealed that a higher level of self-esteem was associated with a lower level of subjective distress. The present findings were contradicted with Faria & Vijaya [73] who showed no link between SUD ratings and self-esteem scores among teaching professionals. The difference could be due to variations in the target group's characteristics.

4.1. Conclusion

The majority of the studied nursing students groups at pre EMDR intervention sessions had a moderate degree of PSA followed by low level, then the high level of PSA with no statistically significant difference between both groups. Whereas the post EMDR intervention technique revealed a significantly reduction in the PSA level and mean score in the intervention group compared to PSA levels in the control group and the difference between both groups was statistically significant. Beside, most of both the intervention and control groups had normal levels of self-esteem, followed by poor level at pre intervention with no statistically significant difference between both groups. While the post EMDR sessions showed significantly improvement in the self-esteem level as well as its mean score among intervention group compared to the control group and the difference between both groups was statistically significant. Moreover, there was a significantly negative correlation between PSA total score and self-esteem score as well as between self-esteem total score and SUD score, whereas there was a significantly positive association between SUD score and PSA total score.

4.2. Implications for nursing practice

Nurses have more chances for unique and positive connection with adolescents, families, and individuals around them than other healthcare professional. According to the present findings, we can suggest that the efficient, low-cost, safe and reliable strategies should be used to decrease students' degree of speaking anxiety in public and enhance their self-esteem. Nursing students must overcome speaking anxiety, as they must talk in front of audience members for patient education as well

as in-service training. Students must learn to deal with PSA during their college years. The EMDR is one of the most effective approaches to deal with fear of public speaking. The EMDR approach can be employed as a non-pharmacological and supportive strategy to help nursing students overcome their fear of public speaking and enhancing their self-esteem. Students' self-esteem is very essential and vital when practicing nursing in healthcare setting because it enhances their self-awareness and allows them to be competent nursing staff members in the future. Furthermore, the necessity of holding a seminar and workshop for nursing students at start of every academic year to assist them in coping with social anxiety and enhance their self-esteem. In addition, encouraging students to participate in social activities, collaborative work, and community interactions to enable them overcome social anxiety and developing a good self-image. Future research studies should look into the long-term follow-up impact of EMDR on nursing students at various academic institutions.

References

1. Herbein, E., Golle, J., Tibus, M., Zettler, I., & Trautwein, U. (2018). Putting a speech training program into practice: Its implementation and effects on elementary school children's public speaking skills and levels of speech anxiety. Contemporary Educational Psychology, 55, 176-188. https://doi.org/10.1016/j.learninstruc.2017.10.008
2. Nadia, H., & Yansyah, Y. (2019). The effect of public speaking training on students' speaking anxiety and skill. Proceeding of the 65th TEFLIN International Conference, Universitas Negeri Makassar, Indonesia, Vol. 65, No. 01.
3. Kavanagh, J. M., & Szweda, C. (2017). A crisis in competency: The strategic and ethical imperative to assessing new graduate nurses' clinical reasoning. Nursing Education Perspectives, 38(2), 57-62.
4. Chard, R., & Makary, M. A. (2015). Transfer-of-care communication: nursing best practices. AORN journal, 102(4), 329-342. doi: 10.1016/j.aorn.2015.07.009
5. Rogers, E. R., & King, S. R. (2012). The influence of a patient-counseling course on the communication apprehension, outcome expectations, and self-efficacy of first-year pharmacy students. American journal of pharmaceutical education, 76(8). doi: 10.5688/ajpe768152
6. Wati, N. L., Yosep, I., Dharmansyah, D., & Ibrahim, M. (2021). The Influences of "Public Speaking-Attractive Training" to the Public Speaking Anxiety (PSA). KnE Life Sciences, 454-461. doi: 10.18502/kls.v6i1.8634.
7. Bridges, J., Nicholson, C., Maben, J., Pope, C., Flatley, M., Wilkinson, C., & Tziggili, M. (2013). Capacity for care: meta-ethnography of acute care nurses' experiences of the nurse-patient relationship. Journal of advanced nursing, 69(4), 760-772. doi: 10.1111/jan.12050
8. Kristanto, R., Sudarwanto, S., & Kurniawati, W. (2020). Public Speaking serta Teknik Ice Breaking dan MC Sebagai Upaya Pengajaran yang Menarik. Jurnal Komunitas: Jurnal Pengabdian kepada Masyarakat, 2(2), 127-132. doi: https://doi.org/10.31334/jks.v2i2.734
9. Chowdhury, A.R., & Mete, J. (2016). A Quantitative Study on Public Speaking

Anxiety in Bengali Medium Schools in West Bengal. International Journal of Science and Research (IJSR) ISSN (Online): 2319-7064 118-121. doi: 10.21275/ART20179259

10. Hidayoza, P., Amri, Z., & Wahyuni, D. (2019). Level of Public Speaking Anxiety and Coping Strategy Used by English Debaters at Unit Kegiatan Bahasa Asing in Dealing with English Debate. Journal of English Language Teaching, 8(1), 51-60. doi: https://doi.org/10.24036/jelt.v8i1.103271
11. Tiyas, A., Nurhidayah, Y., & Herdiawan, R. D. (2020). " Why I Can't Speak Up?": Students' Anxiety in Public Speaking. Journal of English Language Learning, 3(1), 318845. https://doi.org/10.31949/jell.v3i1.1619
12. American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5 (5th ed.). Washington, DC: American psychiatric association.
13. Gallego, A., McHugh, L., Penttonen, M., & Lappalainen, R. (2021). Measuring public speaking anxiety: self-report, behavioral, and physiological. Behavior Modification, 0145445521994308. https://doi.org/10.1177/0145445521994308
14. Black, R. (2019). Glossophobia (Fear of public speaking): Are you glossophobic. Retrieved 23/05/21 from https://www.psycom.net/glossophobia-fear-of-public-speaking#causes%20of%20glossophobia
15. Khairani, R. G. M. (2020). An Experiment of Public Speaking Anxiety on College Students. ICPsy 2019-International Conference on Psychology
16. Billings, D. M., & Halstead, J. A. (2019). Teaching in nursing e-book: A Guide for Faculty. Elsevier Health Sciences.
17. Iqbal, A., Bhatti, M. S., Parveen, S., & Javaid, Z. (2017). Effects of Speech Anxiety on Students' Performance at Secondary Level. Education and Information Management, Journal of Managerial Sciences, 11 (3), 107-121.
18. Venkatesh, A. (2020). Public Speaking Anxiety in College Students: Developing A Treatment Protocol Through Correlation Of Socio-Environmental Causes To Non-Traditional Treatment Methods. https://digitalcommons.odu.edu/vchc-conference/2020/ Presentations/59/
19. Wati, N. L., Sansuwito, T. B., Sirait, H. S., Pusporini, L. S., Ruswadi, I., Rahayu, S. M., & Darmawati, I. (2021).The Effect of Emotinal Freedom Technique to the Public Speaking Anxiety (PSA) among Nursing Students. Mal J Med Health Sci 17(SUPP14): 86-89
20. Afolayan, J., Donald, B., Onasoga, O., Babafemi, A., & Agama Juan, A. (2013). Relationship between anxiety and academic performance of nursing students, Niger Delta University, Bayelsa State, Nigeria. Adv Appl Sci Res, 4(5), 25-33. Available online at www.pelagiaresearchlibrary.com
21. Velmurugan, K., Balamurugan, G., Vijayarani, M., (2018). Self-esteem among nursing students. Journal of Health Professions, 8 (1), 13–15.
22. Hashemi, Z., Shokrpour, N., Valinejad, M., & Hadavi, M. (2020). Communication apprehension and level of anxiety in the medical students of Rafsanjan University of Medical Sciences. Journal of Education and Health Promotion, 9(1), 350. doi:

10.4103/jehp.jehp_401_20. eCollection 2020

23. Alhagery, S. (2011). Effectiveness of a collective counseling program in the development of self-esteem among the visually impaired in the Sultanate of Oman (Unpublished MA thesis). University of Nizwa, Sultanate of Oman.

24. Cuncic, A. (2020, March 21). How Self-Esteem Affects Social Anxiety Disorder. Retrieved from https://www.verywellmind.com/self-esteem-and-social-anxiety-4158220

25. Murad, O. S. (2020). Social Anxiety in Relation to Self-Esteem among University Students in Jordan. International Education Studies, 13(2), 96-103. doi:10.5539/ies.v13n2p96

26. Ebrahimi, O. V., Pallesen, S., Kenter, R. M., & Nordgreen, T. (2019). Psychological interventions for the fear of public speaking: a meta-analysis. Frontiers in psychology, 10, 488. https:// doi.org/10.3389/fpsyg.2019.00488.

27. Landin-Romero, R., Moreno-Alcazar, A., Pagani, M., & Amann, B. L. (2018). How does eye movement desensitization and reprocessing therapy work? A systematic review on suggested mechanisms of action. Frontiers in psychology, 9, 1395. https://doi.org/10.3389/fpsyg.2018.01395

28. Shapiro, F. (2014). The role of eye movement desensitization and reprocessing (EMDR) therapy in medicine: addressing the psychological and physical symptoms stemming from adverse life experiences. The Permanente Journal, 18(1), 71. doi: 10.7812/TPP/13-098

29. Shapiro, F., & Forrest, M. S. (2016). EMDR: The breakthrough therapy for overcoming anxiety, stress, and trauma. Basic Books.

30. Yunitri, N., Kao, C. C., Chu, H., Voss, J., Chiu, H. L., Liu, D., & Chou, K. R. (2020). The effectiveness of eye movement desensitization and reprocessing toward anxiety disorder: a meta-analysis of randomized controlled trials. Journal of psychiatric research, 123, 102-113. doi: 10.1016/j.jpsychires.2020.01.005

31. Zeighami, R., Behnammoghadam, M., Moradi, M., & Bashti, S. (2018). Comparison of the effect of eye movement desensitization reprocessing and cognitive behavioral therapy on anxiety in patients with myocardial infarction. The European Journal of Psychiatry, 32(2), 72-76. doi:10.1016/j. ejpsy.2017.09.001

32. Shapiro, F. (2017). Eye movement desensitization and reprocessing (EMDR) therapy: Basic principles, protocols, and procedures. Guilford Publications; Third edition (December 29, 2017).chapter 3, page 62–71

33. Griffioen, B. T., van der Vegt, A. A., de Groot, I. W., & de Jongh, A. (2017). The effect of EMDR and CBT on low self-esteem in a general psychiatric population: A randomized controlled trial. Frontiers in psychology, 8, 1910. doi: 10.3389/fpsyg.2017.01910

34. Chen, R., Gillespie, A., Zhao, Y., Xi, Y., Ren, Y., & McLean, L. (2018). The efficacy of eye movement desensitization and reprocessing in children and adults who have experienced complex childhood trauma: A systematic review of randomized controlled trials. Frontiers in psychology, 9, 534. doi: 10.3389/fpsyg.2018.00534.

35. Rostaminejad, A., Behnammoghadam, M., Rostaminejad, M., Behnammoghadam, Z.,

& Bashti, S. (2017). Efficacy of eye movement desensitization and reprocessing on the phantom limb pain of patients with amputations within a 24-month follow-up. International Journal of Rehabilitation Research, 40(3), 209-214. doi:10.1097/MRR.0000000000000227

36. Paauw, C., de Roos, C., Tummers, J., de Jongh, A., & Dingemans, A. (2019). Effectiveness of trauma-focused treatment for adolescents with major depressive disorder. European journal of psychotraumatology, 10(1), 1682931. doi: 10.1080/20008198.2019.1682931

37. Jahromi, M. K. & Ramezanli, S. (2014). Evaluation of Barriers Contributing in the Demonstration of an Effective Nurse-Patient Communication in Educational Hospitals of Jahrom. Glob J Health Sci, vol. 6, issue 54, doi: 10.5539/gjhs.v6n6p54.

38. Gallego, A., McHugh, L., Villatte, M., & Lappalainen, R. (2020). Examining the relationship between public speaking anxiety, distress tolerance and psychological flexibility. Journal of Contextual Behavioral Science, 16, 128-133. https://doi.org/10.1016/j.jcbs.2020.04.003

39. Reghuram, R., & Mathias, J. (2014). A study on occurrence of social anxiety among nursing students and its correlation with professional adjustment in selected nursing institutions at Mangalore. Journal of Health and Allied Sciences NU, 4(02), 064-069. doi:10.1055/s-0040-1703766

40. Dİncer, B., ÖzÇelİk, S. K., Zülfünaz, Ö. Z. E. R., & BahÇecİk, N. (2020). Breathing therapy and emotional freedom techniques on public speaking anxiety in Turkish nursing students: A randomized controlled study. EXPLORE, Volume 18, Issue 2, March–April 2022, Pages 226-233. doi: 10.1016/j.explore.2020.11.006

41. Shapiro, F., & Maxfield, L. (2002). Eye movement desensitization and reprocessing (EMDR): Information processing in the treatment of trauma. Journal of clinical psychology, 58(8), 933-946. doi: 10.1002/jclp.10068.

42. Kirkwood, B. R., & Sterne, J. A. (2010). Textbook" Essential Medical Statistics" Second Edition, Publishing: Blackwell Publishing. pp 413 – 419.

43. McCroskey, J. C. (2013). Personal Report of Public Speaking Anxiety (PRPSA). Measurement Instrument Database for the Social Science. Retrieved from www.midss.ie.

44. Wolpe, J. (1990). The practice of behavior therapy (4th ed.). New York, NY: Pergamon Press.

45. Kim D., Bae H., Park Y. C. (2008). Validity of the subjective units of disturbance scale in EMDR. J. EMDR Pract. Res. 2, 57–62. doi: 10.1891/1933-3196.2.1.57

46. Rosenberg, M. (1989). Society and the Adolescent Self-Image. Revised edition. Middletown CT: Wesleyan University Press, 1989

47. Losa-Iglesias, M. E., López López, D., Rodriguez Vazquez, R., & Becerro de Bengoa-Vallejo, R. (2017). Relationships between social skills and self-esteem in nurses: a questionnaire study. Contemporary Nurse, 53(6), 681-690. doi: 10.1080/10376178.2018.1441729

48. Patterson, S. L. (2016). The effect of emotional freedom technique on stress and anxiety in nursing students: A pilot study. Nurse education today, 40, 104-110. DOI: 10.1016/j.nedt.2016.02.003

49. Naser, N. A. M., & Isa, I. A. M. (2021). Public Speaking Anxiety in Oral Presentation Class among Undergraduates. International Journal of Academic Research in Business and Social Sciences, 11(10), 877 – 889. doi:10.6007/IJARBSS/v11-i10/11456

50. Idrus, F. (2021). Profiling English Language Learning Anxiety among Selected Rural Area Secondary School Students in Malaysia: A Case Study. International Journal of English Language Teaching, Vol.9, No.1, pp.1-20.

51. Sim, S. P. L., Yeo, J. Y., & Lau, K. Y. L. (2020). English Student Speaking Anxiety Among Students From Two Public Universities in Sarawak. International Journal of Service Management and Sustainability, 5(1), 107-122. doi:10.24191/ijsms.v5i1.9862

52. Marinho, A. C. F., Medeiros, A. M. D., Lima, E. D. P., Pantuza, J. J., & Teixeira, L. C. (2019, October). Prevalence and factors associated with fear of public speaking. In CoDAS , 31(6):e20180266. doi: 10.1590/2317-1782/20192018266.

53. Gufriyansyah, R., & Khairani, M. (2020). An Experiment of Public Speaking Anxiety on College Students. ICPsy 2019 - International Conference on Psychology, 1-11. doi:10.5220/0009433900050011

54. Pontillas, M. S. D. (2020). Reducing the public speaking anxiety of ESL college students through popsispeak. 3L, Language, Linguistics, Literature, 26(1). doi:10.17576/3L-2020-2601-07

55. Ketata, N., Ben Ayed, H., Baklouti, M., Trigui, M., Yaich, S., Abdelmoula, M., & Damak, J. (2021). Self-esteem and university students: Findings from a multi-center study. European Journal of Public Health, 31(Supplement_3), ckab165-593. https://doi.org/10.1093/eurpub/ckab165.593

56. Kumar L.M. (2020) Social anxiety and self -esteem among nursing students: A descriptive correlational study. J Nurs Occup Health, 1(1): 23-27.

57. Belsiyal, C. X. (2015). Level of self-esteem among B. Sc.(N) students in a selected college of nursing at Bangalore, Karnataka. Asian Journal of nursing education and research, 5(2), 254. doi: 10.5958/2349-2996.2015.00050.6

58. Nandan, L. (2021). Self-Esteem among the Nursing students of selected Institutions of Noida. International Journal of Nursing Education and Research, 9(1), 91-95. doi: 10.5958/2454-2660.2021.00023.5

59. Mundada, N. (2020). Self-esteem, self-consciousness and social anxiety among college students. International Journal of Indian Psychology, 8(4), 670-678. DIP:18.01.083/20200804, doi:10.25215/0804.083

60. Fatima, M., Niazi, S., & Ghayas, S. (2017). Relationship between Self-Esteem and Social anxiety: Role of Social Connectedness as a Mediator. Pakistan Journal of Social and Clinical Psychology, 15(2), 12–17.

61. Tan, J., Lo, P., Ge, N., & Chu, C. (2016). Self-esteem mediates the relationship between mindfulness and social anxiety among Chinese undergraduate students. Social Behavior and Personality, 44, 1297–1304. doi: https://doi.org/10.2224/sbp.2016.44.8.1297

62. Kumar, M., Kalakbandi, V., Prashar, S., & Parashar, A. (2017). Overcoming the effect of low self-esteem on public speaking

anxiety with mindfulness-based interventions. Decision, 44(4), 287-296. doi 10.1007/s40622-017-0166-4

63. Rezaei, S. (2020). The Effectiveness of Eye Movement Desensitization and Reprocessing (EMDR) on Fear of Negative Evaluation (FNE) and Social Adjustment in Female Students with Social Phobia. International Journal of Psychology, 14(1). doi: 10.22034/ijpb.2020.170331.1086

64. Aslani, J., Miratashi, M., & Aslani, L. (2014). Effectiveness of Eye Movement Desensitization and Reprocessing Therapy on Public Speaking Anxiety of University Students. Zahedan Journal of Research in Medical Sciences, 16(10), 46-49.

65. Hekmatiyan fard, S., Rajabi, S., Hoseini, F. (2021). The Effectiveness of Eye Movement Desensitization and Reprocessing Therapy on the Anxiety Speech and Educational self-efficacy In students With Social anxiety. Counseling Culture and Psycotherapy, 12(45), 269-294. doi: 10.22054/qccpc.2020.49651.2309

66. Kaptan, S. K., Dursun, B. O., Knowles, M., Husain, N., & Varese, F. (2021). Group eye movement desensitization and reprocessing interventions in adults and children: A systematic review of randomized and nonrandomized trials. Clinical Psychology & Psychotherapy, 28(4), 784-806. doi: 10.1002/cpp.2549

67. Oh, K. O., Gang, M. H., & Kim, S. H. (2018). EMDR-IGTP on the Depression, Anxiety, Post Traumatic Stress, and Self-esteem of Graduate Nursing Students. Journal of Digital Convergence, 16(6), 233-240. https://doi.org/10.14400/JDC.2018.16.6.233

68. Wanders, F., Serra, M., & De Jongh, A. D. (2008). EMDR versus CBT for children with self-esteem and behavioral problems: A randomized controlled trial. Journal of EMDR Practice and Research, 2(3), 180-189. https://doi.org/10.1891/1933-3196.2.3.180

69. Goga, N., Boiangiu, C. A., Vasilateanu, A., Popovici, A. F., Drăgoi, M. V., Popovici, R., & Hadăr, A. (2022, January). An Efficient System for Eye Movement Desensitization and Reprocessing (EMDR) Therapy: A Pilot Study. In Healthcare (Vol. 10, No. 1, p. 133). Multidisciplinary Digital Publishing Institute. doi: 10.3390/healthcare10010133.

70. Chen, Y. R., Hung, K. W., Tsai, J. C., Chu, H., Chung, M. H., Chen, S. R., et al. (2014). Efficacy of eye-movement desensitization and reprocessing for patients with posttraumatic-stress disorder: a meta-analysis of randomized controlled trials. PLoS ONE 9:e103676. doi: 10.1371/journal.pone.0103676

71. Jangir, S. K., & Govinda, R. B. (2017). Reducing Public Speaking Anxiety with Behavior Modification Techniques among School Students: A Study. International Journal of Indian Psychology, 5(1), 91-97. doi: 10.25215/0501.011

72. Parrish, D. E., Oxhandler, H. K., Duron, J. F., Swank, P., & Bordnick, P. (2016). Feasibility of virtual reality environments for adolescent social anxiety disorder. Research on Social Work Practice, 26(7), 825-835. DOI: 10.1177/1049731514568897

73. Faria, C & Vijaya R. (2019). Distress, self-esteem and public speaking anxiety among teaching faculty. International Journal of Indian Psychology, 7(2), 54-61.

DIP:18.01.008/20190702,
doi:10.25215/0702.008