Effectiveness of Mindfulness Program on Anxiety, Anger, and Self-Esteem among Academic Nursing Student

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Abstract

Background: Academic nursing student experience problems related to anger and low self-esteem that negatively influence their academic and social development and have lasting effects on their well-being. **Aim**: To evaluate the effectiveness of a mindfulness program on anxiety, anger, and self-esteem among academic nursing students. **Design**: A quasi-experimental pre-posttest non-equivalent group design were used. **Setting**: The study was carried out in the Faculty of Nursing at Sohag University. **Subjects**: The subjects comprised of 120 academic nursing students from the first academic year was selected by purposive sampling technique involved in the study from the previously selected settings. The sample was partitioned into two groups, a study group and a control group (n = 60 academic nursing students in each group). **Data collection tools**: The student's personal data questionnaire, the Anxiety inventory, the Adolescent Anger Rating Scale (AARS), and the Self-esteem scale were used. **Results**: the level of anxiety, anger in the study group decreased in the post-test with and there were a significant difference in the posttest anxiety, anger scores between the control and study groups. The percentage of a high level of self-esteem increased in the mindfulness- program. also., there were a significant difference between the post- mindfulness- program self-esteem between the control and study groups. There were positive relationships between self-esteem, anger, and anxiety among academic nursing students. **Conclusion**: The study concluded that the mindfulness- program was efficacy in reducing anxiety, and anger and improving self-esteem among academic nursing students. **Recommendations**: the study should replicate in order to increase confidence in the intervention's efficacy, guarantee generalizability, and improve students' mental health.

Keywords: Academic nursing student, Anger, Mindfulness- program, and self-esteem.

Introduction

Stress is a normal part of life. It can be experienced from the environment, body, and thoughts. It is the body's reaction to any change that requires an adjustment or response *(American Psychological Association. 2021)*. Anxiety is a feeling of fear or apprehension about what is to come, and it is our body's natural response to stress *(Macauley K, et al.,. 2018)*. Long-term anxiety and depression exposure can lead to mental and physical health problems, which can impair students' quality of life, academic performance, and other areas *(Kumar B, et al.,2019)*. According to **Ramaiya, M. et al., (2022)**, the mental health issues of academic nursing students significantly increase the burden of disease in low- and middle-income nations. Early onset, prevalence, and the potential to have an impact on children, families, and communities are characteristics of mental health problems **(Moen, O. & Jacobsen, I. 2022).** Academic nursing students experience problems like low self-esteem, anxiety, and rage. Due to a lack of knowledge about emotions and how to control them, academic

nursing students may struggle to control their anger, which can lead to disruptive behavior like bullying and outbursts. These actions result from uncertainty and the inability to vent rage in a healthy way **(Costa, T. et al., 2023).**

Although disruptive behavior is common in classrooms, early intervention programs that instruct in communication, conflict resolution, emotion management, and anger control have been shown to significantly lower aggressive and violent behavior among academic nursing students. Building a positive self-concept in student is essential for supporting effective academic environments and encouraging healthy social and emotional development (**Herrera, L. et al., 2020**).

Mindfulness is regarded not as something to get or acquire, but as an internal resource that already exists, patiently waiting to be reawakened *(Li YF, et al. 2020)*. Programs that promote mindfulness have gained popularity recently, and multiple recent studies have found that they can increase students' academic performance, interpersonal interactions, vitality, and resilience while lowering anxiety, anger,

and depressive symptoms (**D'Alessandro ,A. et al. 2022; Phan, M.et al. 2022).**

Additionally, by enabling students to experience events more thoughtfully and carefully and to learn new information in a more relaxed manner, mindfulness in education can help students deal with the obstacles they face daily (**Amundsen, R. et al., 2020**). As a result, learning is improved, the risk of information overload is reduced, and some features for social and personal growth as well as benefits to one's health are made available to support academic learning methodologies. A mindfulness program can be effectively led and facilitated by nurses (**Persson ,L.et al., 2022**).

Self-esteem is a person's perception of their value or worth, or the degree to which they value, approve of, enjoy, prize, or like themselves. According to **Harris, M and Orth, U. (2020**), it is frequently considered to be the evaluative part of the self-concept, a more comprehensive representation of the self that contains cognitive and behavioral characteristics in addition to evaluative or affective ones. Related words like "self-confidence" reflected a more constrained view of one's worth. There is a clear connection between self-esteem and psychological well-being in terms of sadness, social anxiety, loneliness, and alienation. Self-esteem in people is thought to function as a trait and to be constant across time (**Li, G. et al., 2018).**

Parents, instructors, coworkers, friends, classmates, and the surroundings all have an impact on people's self-esteem. Other aspects include genetics and environment. Practically every other psychological concept or domain has been linked to it, including personality, task performance, analogous behavior, cognitive (such as attribution bias), and clinical ideas like anxiety and wrath (**Cvencek ,D.et al. 2018**).

According to **Zakeri,H. & Karimpour, M. (2011**), **Rosenberg, M. (1965**) defined self-esteem as a positive or negative attitude towards oneself. According to **Dale, L. (2019**), self-esteem is the result of two internal evaluations or judgments: one's overall opinion of oneself and their value. The degree of dissonance between what a person sought and what they perceived they had accomplished—as well as the overall sense of support they received from those around them—were critical indicators of self-esteem. **Maslo, A. (1954)** first proposed the idea that one of the five sets of wants for humans was esteem. As opposed to prestige, recognition, and attention, which were seen to be external esteem elements, self-respect, and autonomy were recognized as internal esteem factors. In contrast to esteem, which was defined as how one's perception of oneself, self-esteem was defined as one's impression of himself or herself. This is why esteem was regarded as a higher-order need. Low self-esteem is correlated with high anxiety, and positive attitudes among students are correlated with high self-esteem. (**Obeid, S. et al., 2019**).

According to several clinical studies, the feeling of failure or unfitness in a person's traits and desires is most likely one of the main causes of anxiety. In reality, if one accepts that anxiety results from feeling threatened or experiencing danger, it can be claimed that this is the area where self-esteem has been challenged. Furthermore, these factors have been explored by several experimental and field studies, which have supported clinical notions (**Dale ,L. et al. 2019**).

A relationship between the nurse and the students could only be built based on the nurse's concern for the student's health and well-being. According to **Persson, L. et al. (2022**), nurses are crucial in providing academic nursing students with initial mental health help. To help young people live healthy and successful lives, school health nurses must provide them with the required education and training. By encouraging a comprehensive balance of the intellect, body, and heart, the emphasis should be on cultivating not only intelligence but also knowledge, empathy, and wellness (**Portable, C. & Jansen, P. 2023**).

Nurses can oversee training programs that help academic nursing students develop their mental health competencies. Academic nursing students can be taught about mental health, its problems, and how to deal with them using a variety of teaching techniques. Therefore, the nurse needs to improve the availability and quality of training to evaluate and support students' mental health (**Costa ,T. et al., 2023**).

Significance of the study

Egypt's young population is rapidly growing. The adolescents (aged 10-19) are around 17 million, representing approximately 19 percent of the total population. Together with youth in the age group 20-24 years, an additional 9 million, adolescents and youth represent almost one third of the Egyptian The number of young people in Egypt is rising quickly (**UNICEF, 2021**). The most common stress which the nursing student are exposed to are 'stress experience in the educational environment', 'relationships at work', 'issues of death and suffering, 'inadequate knowledge and training', 'insufficient hospital resources', and 'communication and procedural aspects of client care' (**Pulido-Martos M 2012**) .

Students typically suffer from high levels of stress and anxiety due to concerns about college and peer pressure. Also they typically suffer from high levels of stress and anxiety due to

concerns about college and peer pressure. Students who struggle to control their stress and anxiety may exhibit behavioral abnormalities, mood swings, and even depression. Studying the effectiveness of a mindfulness program provide nurses with insightful knowledge and practical advice that is particularly pertinent to the country's social, cultural, and educational environment. As a result, academic nursing students must employ strategies like mindfulness intervention to help them manage their psychological discomfort, acquire social skills, and control their anger (**Henry, L. et al. 2022**). Programs that promote mindfulness have gained popularity recently, and multiple recent studies have found that they can increase students' academic performance, interpersonal interactions, vitality, and resilience while lowering anxiety, anger, and depressive symptoms (**D'Alessandro ,A. et al. 2022; Phan, M.et al. 2022**). So the current study aimed to evaluate the effectiveness of a mindfulness program on anxiety, anger, and self-esteem among academic nursing students

Methods
Aim of the study:
This study aimed to evaluate the effectiveness of a mindfulness program on anxiety, anger, and self-esteem among academic nursing students.
Research hypotheses:
H_1: The post-test degree of anxiety, anger levels of academic nursing students exposed to mindfulness- programs will be lower than the pre-test.

H_2: The post-test self-esteem levels of academic nursing students exposed to mindfulness-program will be higher than the pre-test mean scores.

H_3: Nursing students who will receive mindfulness program will have low scores in the anxiety scale than the control group post program.
Research design
A quasi-experimental pre-posttest non-equivalent group design was utilized in the to achieve the aim of this study
Setting]
The study was carried out in the Faculty of Nursing at Sohag University.
Subjects
The subjects comprised of 120 academic nursing students from the first academic year was selected by purposive sampling technique involved in the study from the previously selected settings. The subjects was partitioned into two groups, a study group and a control group (n = 60 academic nursing students in each group).

Inclusion criteria
- First academic year from both sexes
- Accept to participate in this study.
Exclusion criteria
- Psychotic disorders.
- Neurotic disorders
- Currently on treatment, and those with chronic low back pain.
- Students who had practiced any form of mindfulness meditation.
Sample size
The sample size was calculated using the Cochran technique for sample size with an 8% error margin, which equaled 120 academic nursing students for the 350-person population (**Pourhoseingholi, M. et al., 2013**). To choose the sample we used cards, 60 of them wrote on it letter A and other 60 letter B, the students asked to choose from cards, those who choose cards with letter A were the study group, and those who choose cards with letter B were a control group. For four weeks, the study group participated in a mindfulness program, while the control group did not get any treatment during that time.

Tools for data collection
Four tools were used to gather data:
Tool I: The **student's personal data questionnaire:**
It was established by the researchers in an Arabic language and included personal data of academic nursing students. It consisted of 3 questions, such as age, sex, and residence.
Tool II: Anxiety Inventory
This rating scale was created by **Beck,J. et al. (2001**) and is assessed the degree of anxiety in both adults and teenagers. It is a self-report inventory with 21 items and multiple-choice options. The Beck Anxiety Inventory (BAI) items distinguish between anxiety and depression by describing the emotional, physiological, and cognitive signs of anxiety but not those of depression. The scale has a 4-point scale ranging from 0 (not at all) to 3 (severely, can hardly take it). Total scores between 0 and 63 are calculated by adding the items. Scores of 0–21 indicate low levels of anxiety, 22–35 indicate moderate levels of anxiety, and 36 and higher indicate levels of anxiety that may be cause for concern.
Tool III: The Adolescent Anger Rating Scale (AARS):
It was a standardized tool developed by **Hamza, A. (2012**) in an Arabic language**.** It was used as pre-/post-tests. It is designed to measure anger forms: reactive and instrumental, intensity and psychometric signs of anger, and intrinsic and extrinsic anger. It consists of 73 items.The scale is divided into six subscales: anger exaggerated

factors (19 items), emotional feeling of anger (13 items), psychometric signs of anger (14 items), intrinsic anger (9 items), extrinsic anger (9 items), and intensity of anger (9 items).

Scoring System
Each item was responded to utilizing a 3-point Likert scale format from 3 to one range (never =1, sometimes = 2, yes = 3). The total AARS score can be measured, which varies from 73-219. A score of 164 or more (≥75%) suggests a greater anger level, the moderate level ranges from 109 to less than 164(50% to <75%), and a lower level of anger is considered if the score is less than 109 (<50%). The rating scale is achieved in 20 to 25 minutes. Cronbach's Alpha was used to determine the internal consistency of the standardized tool which was (0.94) **Hamza, A. (2012).**

Tool IV: Self-esteem scale
This rating scale was created by **Rosenberg, M. (1965**) in an English language and translated by the researcher into an Arabic language. As pre-post testing, it was utilized. The 10-item scale assesses both positive and negative feelings about oneself to assess overall self-worth. The scale is thought to be one dimension only. Every question is answered on a 4-point Likert scale, with the option "Strongly Agree to Strongly Disagree." Reverse scoring applies to items 2, 5, 6, and 9. Score "Strongly Disagree" with two points, "Agree" with three points, and "Strongly Agree" with four points. Add the ten-item scores together. Continually record your scores. Increased scores correspond to stronger self-esteem.

Tools validity: The study tools were tested for validity by a panel of five experts in the fields of Psychiatric and Mental Health Nursing and Community Health Nursing. No modifications were made.

Tools reliability: Cronbach's Alpha was used to assess the reliability of the tools; it was (0.84) for the Anxiety inventory, (0.94) for The Adolescent Anger Rating Scale (AARS) & (0.86) for the Self-esteem scale

Ethical consideration
Before starting the study, ethical approval was obtained from the scientific research ethical committee of the faculty of Nursing, at Sohag University (NO 44 on date of 7 / 2 /2023). Informed consent was acquired from each academic nursing student. Further, the privacy and confidentiality of academic nursing students' data were protected. The researchers developed and preserved unique coding to maintain the academic nursing students' anonymity. Moreover, academic nursing

students were informed of the goal of the research to elicit their participation and enable data collection.

Pilot study
Pilot research was carried out on 10% of the entire sample 12 academic nursing students to assess the clarity and applicability of the tools. No changes were made to the tools. So, they were added to the total sample.

Procedure: The actual study took place in the beginning of March until the end of May 2023; and was conducted in four main phases:

The preparatory phase
- In order to gain a thorough understanding of the theory underlying the various program components, the researchers examined both historical and contemporary literature that was pertinent to the subject of the study. Following a thorough assessment of the literature, the study tools were then created. An official approval was obtained from the Dean of the Faculty of Nursing; this includes permission to conduct the study and explained the aim and nature of the study.
- Following the evaluation of their personal information, the researcher had them complete the Adolescent Anger Rating Scale (AARS), the Self-esteem scale, and the Anxiety Inventory. The questionnaire took about thirty minutes to complete.

Planning phase
The researcher designed a mindfulness program plan following the study of relevant literature. About 60 minute\ sessions, held once a week comprised the mindfulness program. Every session, both theoretical and practical, had a designated facilitator. During this stage, the overall number of sessions as well as the instructional strategies and media were created.

Implementation phase
During this phase, a mindfulness program was offered only to the study group. The program was made in Arabic language. Additionally, every session was run like a teaching class using previously prepared session. Booklets, picture, pershore and video were used during the program's implementation and theses contents were given to the nursing students involved in program. After each session, feedback was provided. The researcher used whiteboards, handout and computer (like pictures and PowerPoint slides and video) every session,. The mindfulness program included 4 sessions:
- **First session:** Establishing a climate of trust and familiarity between researchers and students is the first step toward familiarization and preparation. Additionally, explain what anger, its type and it causes, and how to control it. Assist academic

nursing students in recognizing the various signs and symptoms, causes and effect of anxiety.

- **Second session:** Educate academic nursing students about self esteem concept, component, type and factor affecting it. Help academic nursing students to understand meaning, goals, important, effect, component and characteristic of mindfulness.
- **Third session:** Learn about Mindfulness practices and technique as meditation, relaxation ....etc.
- **Fourth session:** Training on Mindfulness practices and teach students coping strategies to deal with conflict of daily life in healthy ways by use problem-solving skills.

Evaluation phase

Evaluation phase was conducted one month after the program's implementation, the control and study groups used the Anxiety Inventory, Adolescent Anger Rating Scale (AARS), and Self-esteem scale to assess the effect of mindfulness program on anxiety, anger, and self-esteem among academic nursing students.

Statistical analysis

When appropriate, frequencies mean ± standard deviations, and percentages were used to depict the data statistically. Since the research classes are sufficient, the numerical variables were compared utilizing the student t-test for categorical data between the study classes. When the predicted frequency is less than 5, an exact test was utilized instead. Two-sided *p*-values below 0.05 were considered significant. The software IBM SPSS (Statistical Package for the Social Sciences; IBM Corp., Armonk, NY, USA) release 22 for Microsoft Windows was utilized for all statistical calculations.

Results

Table (1): Displays the academic nursing student's data. It shows that 63.3% of the study group students were between 16 and < 17 years old, and 66.6% of control group. 50% of the study group were female and 58.3 % of control group were female. Regarding residence, it was observed that 63.3% were living in urban areas of control group.

Figure (1): Regarding the level of anxiety in the study group, the percentage of a severe level of anxiety decreased from 29% in the mindfulness-program to 2% in the mindfulness- program, while in the control group, it decreased from 31% in the pre-test to 30% in the post-mindfulness- program. A significant difference was found in the post-test anxiety scores between the control and study groups.

Figure (2): Revealed that the majority of the academic nursing students in the study and control groups in the mindfulness- program (78% and 70%) and mindfulness- program (74% and 48%) had moderate levels of anger, respectively. In the study group, there was a decrease in the high level of anger from 20% in the pre-test to no one in the mindfulness-program. A significant difference was found in the mindfulness- program anger scores between the control and study groups.

Figure (3): Regarding the level of self-esteem in the study group, the percentage of a high level of self-esteem increased from 30% in the mindfulness- program to 60% in the mindfulness- program, while in the control group, it decreased from 35% in the pre-test to 30% in the post- mindfulness- program. A significant difference was found between the mindfulness- program self-esteem between the control and study groups

Table (2): demonstrates that there is a correlation between anxiety, self-esteem, and anger as well as a correlation coefficient between these three variables. Additionally, it demonstrates the positive relationship between self-esteem, anger, and anxiety among academic nursing students.

Table (3): findings, anxiety levels are similar for men and women and there no significant difference between the sexes. It also demonstrate that there is a significant difference between males and females in self-esteem and that female are more anxious about their self-esteem than male are..The outcome demonstrates that there is no significant difference between males and females in anger. However, male and female anxiety levels were equally affected by changes in academic performance. Both genders are equally affected by a rise or fall in anger and self-esteem.

Results

Table (1): Academic nursing student data of the study and control groups (n = 60 in each one):

Variables	Items	Control group		Study group	
		N (%)		N (%)	
Age	16 to < 17	40	66.6	38	63.3
	17 to ≥ 18	20	33.4	22	36.7
		M±SD	16.33±1.24		
Sex	Male	25	41.7	30	50.0
	Female	35	58.3	30	50.0
Residence	Urban	38	63.3	40	66.6
	Rural	22	36.7	20	33.4

Figure (1): Anxiety levels distribution amongacademic nursing students pre- and post-mindfulness program in the study and control group (n = 60 in each)
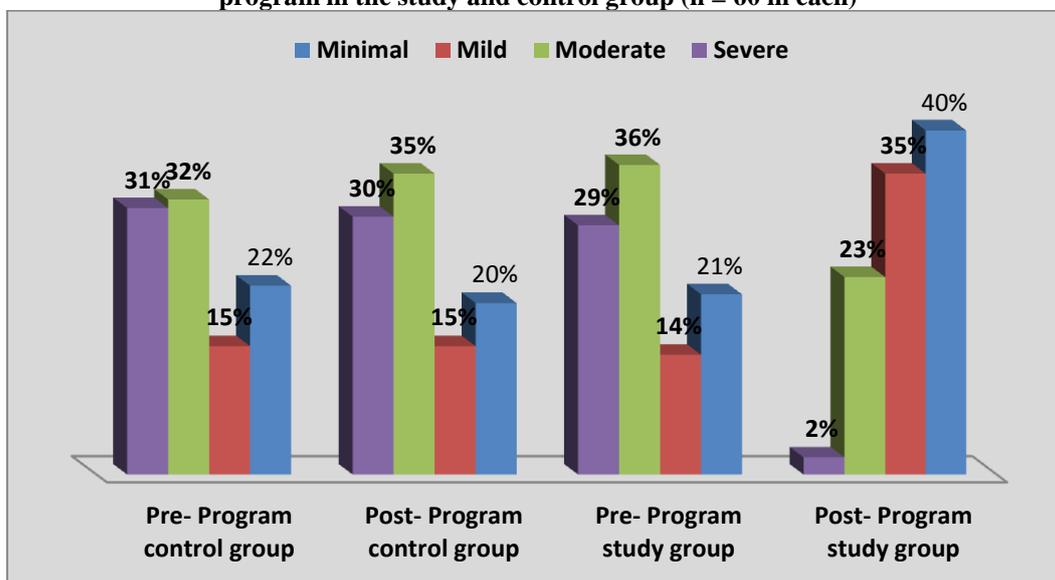

Figure (2): Anger levels distribution amongacademic nursing students pre- and post-mindfulness program in the study and control group (n = 60 in each)
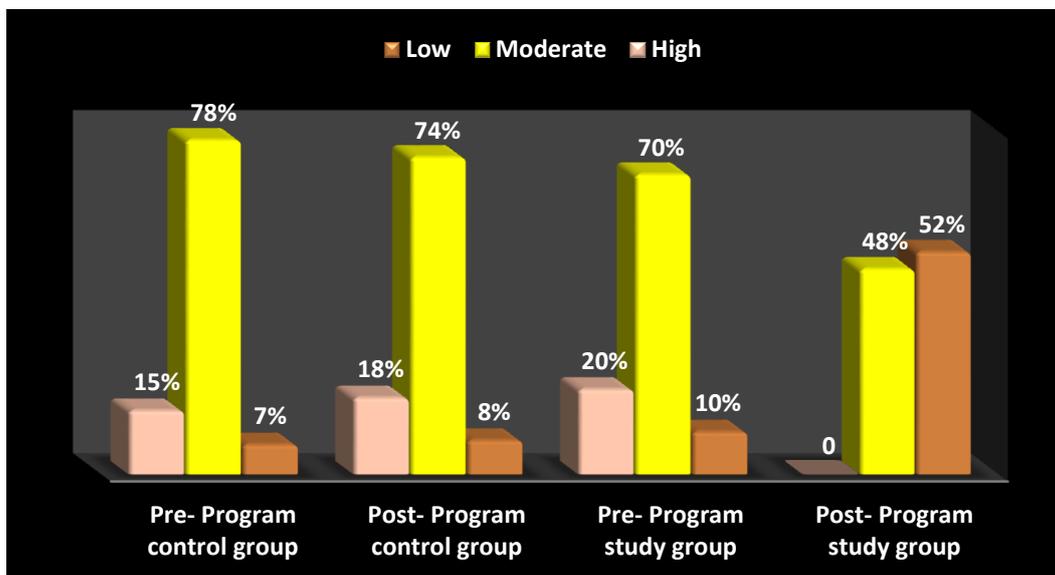
Figure (3): Self-esteem levels distribution amongacademic nursing students pre- and post-mindfulness program in the study and control group (n = 60 in each)
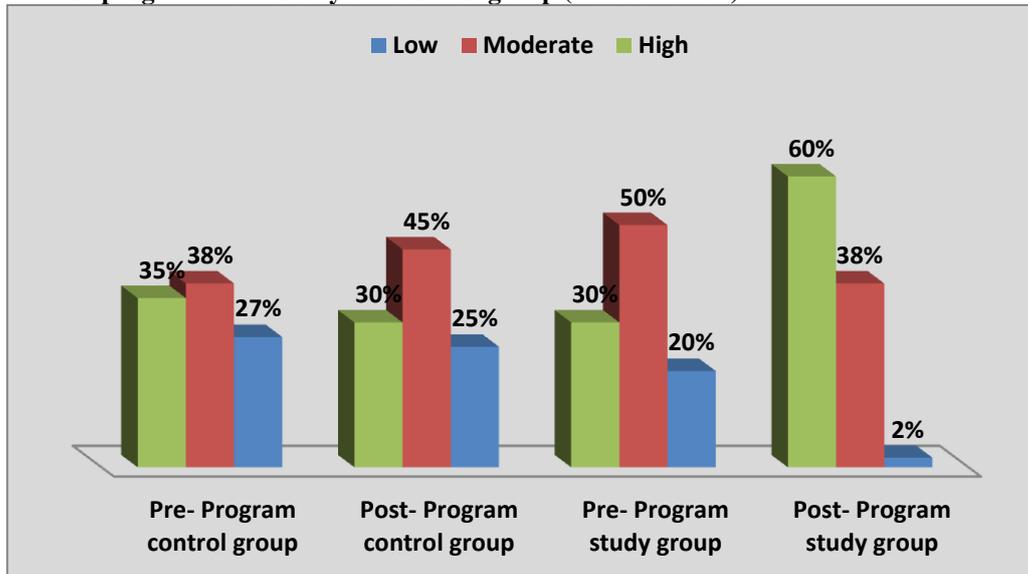

Table 2: Correlation between anxiety, self-esteem, and anger amongacademic nursing students post-mindfulness program in the study (n = 60)

Variables	Anxiety	Self-esteem	Anger
Anxiety	1	.159** .000	.442** .000
Self-esteem		1	.089* .031
Anger			1

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

Table 3: Mean, Standard Deviation, t and P Valu*e* between anxiety, self-esteem, anger, and personal data amongacademic nursing students post-mindfulness program in the study (n = 60)

Variables	Gender	Mean	Std. Dev.	t	P
Anxiety	Male	16.03	10.66	.87	.387
	Female	16.82	10.42		
Self-esteem	Male	17.35	4.043	1.83	.064
	Female	18.12	5.162		
Anger	Male	28.06	9.924	1.92	.058
	Female	29.75	10.23		

Discussion

University students must deal with a variety of difficulties, such as new social and academic contexts, which can have a negative impact on their performance and lead to symptoms of anger and anxiety. In order to become aware of one's awareness and the ability to strengthen them, mindfulness and cognitive emotion regulation can be regarded as essential components. Consequently, the current study sought to—evaluate the effectiveness of a mindfulness program on anxiety, anger, and self-esteem among academic nursing students

Malik, S., & Perveen, A. (2023)

In the present study, more than three-fifths of the study group students were between 16 and <17 years old. These findings were consistent with the study conducted by **Cvencek, D.et al., (2018)** among Nursing students where they found that most of the nursing students belong to the same years of age and most of the participants were female.

The results of the current study revealed that the level of anxiety in the study group decreased in the post-test with a significant difference found in the posttest anxiety scores between the

control and study groups. This reflected the positive effects of mindfulness programs on improving anxiety levels among academic nursing students. A recent comprehensive review of studies involving anxiety reduction methods found that mindfulness meditation will decrease nursing students' anxiety levels, though the authors cautioned that the majority of studies had low anxiety levels post-intervention **Van der Riet, P. et al., (2018**). Similarly, **Takahashi, T. et al., (2019)** found the same results.

This result is in the same line with **Spijkerman, M. et al., (2016**) who studied " Effectiveness of online mindfulness-based interventions in improving mental health " and reported that mindfulness-based interventions have improved anxiety levels among the participants. This result is supported by **Singh, S. & Gorey, K. (2018**) who studied "Relative effectiveness of mindfulness and cognitive behavioral interventions for anxiety disorders" and stated that mindfulness and cognitive behavioral interventions have a positive effect in reducing anxiety disorders among the sample.

The majority of participants stated that while exams, long study sessions, assignments, and a lack of free time are sources of anxiety in the academic world, taking care of ill patients, doubting one's clinical competence, meeting deadlines for clinical requirements, and standing for long periods of time are sources of stress in the clinical world. **Dale ,L. et al.'s (2019)** study revealed the same result. Exams, studying, assignments, management, and unique aspects of the academic program are all sources of academic anxiety. Taking care of sick patients, interpersonal conflict with peer groups, insecurity about one's own clinical competence, and fear of finishing their clinical requirements are all clinical sources of anxiety.

Results of the present study revealed that there was a decrease in the high level of anger no one had a severe level of anger in the post-test. A significant difference was found in the post-test anger scores between the control and study groups, it confirmed the success of the mindfulness- program. These findings are congruent with the study of **Suarez-Garcia, Z. et al. (2020),** which demonstrated that more than half of the study and control groups had moderate levels of anger before the program's interventions. Regarding post-programmed interventions, less than one-third of the study group had severe levels of anger, while more than two-thirds of the control group had moderate levels of anger. In contrast, **Akan,Y. (2021)** found that half of the study and control groups had moderate levels of anger before the program's interventions compared to less than

half of the study group had moderate levels of anger, while less than half of the control group had severe levels of anger. Also, **de Abreu-Costa, M. et al. (2019),** found the same results.

Accordingly, there are statistically significant differences between the study and control groups concerning total mean scores for anger. This might be attributed to the score for anger having decreased after the mindfulness program on anger in the study group's students, who are now able to cope with their anger after the intervention. Anger behavior of at-risk students can be decreased in the short-term by dint of anger management training.

This finding agrees with that of **Ongaro, K.(2019),** who revealed a significant decrease in the total mean anger score from the pre-test to the post-test in the study group, while only a slight decrease was detected in the control group between the pre-test and the post-test, respectively. Consequently, there are statistically significant differences between the study and control groups regarding the total mean anger scores. This finding contrasts with that of **Akan, Y. (2021)** found no statistically significant differences between the study and control groups concerning total mean scores for anger.

Regarding the level of self-esteem in the study group, the percentage of a high level of self-esteem increased in the mindfulness- program. A significant difference was found between the post- mindfulness- program self-esteem between the control and study groups. This could be explained by the fact that the study groups received a mindfulness- program to deal with unpleasant feelings constructively and improve self-esteem through positive thinking and effective communication. This outcome is similar to that of **Ali Kamal, R. et al., (2021),** who showed that less than half of the studied students' self-esteem was high in the pre-program and increased in the post-program. However, this finding is similar to **Mohamed, S. et al. (2022)** who showed that less than half of the studied students' self-esteem was moderate in the pre-program and increased post-program.

These results are congruent with **Esmaeil-Nezhad, E. et al. (2019)**, who found that the study group's self-esteem score significantly increased between the pre- and post-tests. However, between the pre- and post-tests, there was a small increase seen in the control group. Therefore, when it comes to the self-esteem scores, there are statistically significant differences between the study and the control groups. The results of the present study are incongruent with **Laundy, K. et al. (2021),** who found that there were no statistically significant

differences in the self-esteem scores between the study and control groups.

The current study showed that there were positive relationships between self-esteem, anger, and anxiety among academic nursing students. The score could explain this finding for self-esteem increasing and significant improvements occurring in the conditions of the study group who received a mindfulness-program and its practical techniques.

The current study showed that male and female anxiety levels do not significantly differ from one another. Additionally, it suggests that there are major differences between male and female self-esteem, with female self-esteem having higher levels of anxiety than male self-esteem. The outcome demonstrates that there is no discernible difference between males and females when it comes to rage. However, anxiety levels for both males and females were affected equally by rise or decrease. Both genders are equally affected by changes in anger and self-esteem. This may be explained by the fact that gender is a significant factor in rage. There are conflicting results about how men and women experience and display rage. As a result, for comparable reasons, males and females may experience anger with equal intensity and frequency. However, while females employ a variety of coping mechanisms to deal with their anger, males might show it through aggressive actions.

The findings of the study by **Srivastava, R. & Joshi, S. (2014**) showed that self-concept and self-esteem play a significant role in mental health; as a result, a decline in these factors will likely result in the manifestation of anxiety, depression, loneliness, shyness, and reserved traits. On the other hand, self-esteem and anxiety have a close and significant negative relationship **Obeid ,S.et al. (2019**). Furthermore, according to **Fawaz,M. & Samaha,A. (2021**), there is a link between depressive symptoms and academic and social failure, and these shortcomings have made depression symptoms worse. Additionally, successful students who receive higher grades are less anxious. According to **Ghosh , D. (2013**), there is a strong positive correlation between self-esteem and anxiety, which is linked to extremely negative and critical self-evaluation. However, those with low self-esteem are more prone to exhibit certain personality traits like shyness, a reserved state, solitude, and loneliness.

This finding agrees with **Siyez, D. (2018),** who showed that there were no significant differences between males and girls in terms of how they experienced or expressed anger. This result contrasts with that of **Akan (2021**), who

discovered only a minor increase in anger among males despite statistically significant differences in the experience or expression of anger between boys and girls.. This might be related to cross-cultural studies, which express that those differences in self-esteem depending on gender are maintained in different countries. This finding is consistent with **Herrera, L (2020**), who reported that there are statistically significant variations in boys' and girls' self-esteem. This result contradicts that of **Damle, A., & Vangani, S. (2021**), who discovered a marginal rise in female self-esteem but statistically significant differences in self-esteem between boys and girls.

Conclusion
Considering the results of the recent study, the study concluded that the mindfulness- program was efficacy in reducing anxiety, and anger and improving self-esteem among academic nursing students.

Recommendations
Based on the findings of the current study, the following are recommended:
- Conduct follow-up evaluations to investigate the intervention's long-term effects.
- The study should replicate in order to increase confidence in the intervention's efficacy, guarantee generalizability, and improve students' mental health.

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