



**ORIGINAL RESEARCH PAPER**

**Nursing**

**ASSESS THE EFFECT OF MEDITATION ON THE ANXIETY LEVEL OF THE PREBOARD ADOLESCENTS**

**KEY WORDS:** Adolescents, Anxiety, Assess, Effect, Meditation, Preboard

<b>Kavita Kumari</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Khushboo Kumari</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Komal Rani</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Kumari Minakshi</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Kumari Nikita Sinha</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Kumari Nisha</b>	B.Sc Nursing 4th year students, College of Nursing, IGIMS, Patna
<b>Dr Dasgupta Rupashree*</b>	Associate Professor cum Vice Principal, College of Nursing, IGIMS, Sheikhpura Bagicha. Near CRC. Patna. Bihar. Pin: 800014. *Corresponding Author
<b>Mrs. Anupama Sharma</b>	Tutor, College of Nursing, IGIMS, Sheikhpura Bagicha, Near CRC, Patna, Bihar-800014

**ABSTRACT**

Life is full of challenges and becoming complex and complicated day by day for the adolescent students as the emergence of globalization had enhanced the feeling of competition in the world of academics as well as in the world of work. A quantitative, evaluative, Quasi experimental, interrupted Time series research design to assess the effect of meditation on the anxiety level of the 100 Preboard adolescents (Class 10th), was conducted w.e.f 10.03.2022 to 14.03.2022 through Non Probability Purposive Sampling Technique. Data was collected through a Standardised Anxiety Self Rating five point scale and Kolcaba's comfort theory was adopted as conceptual framework. Reliability was determined by Cronbach's alpha test which was 0.85, found to be good with high and significant reliability. Results: The major findings of the study indicated that the average mean anxiety level scores (12.11, 8.51, 5.06) of the Preboard adolescents after the administration of meditation was lower than the average mean anxiety level scores of the Preboard adolescents before the administration of meditation (17.27, 12.70, 8.55) being comparatively higher on all the three days at  $p < 0.05$ , thus, rejecting the null hypothesis at 95% level of significance. Decrease in the anxiety level scores, of the class 10th students due to the effect of meditation, was significant & not by chance. Significant association existed at  $p < 0.05$  between the effect of meditation on the anxiety level of the Preboard adolescents with the socio demographic variables like Age and Past experience of meditation of the Preboard adolescents while highly significant association existed with the religion of the Preboard adolescents thus rejecting the null hypothesis. Preboard adolescents' satisfaction level feedback regarding meditation reflected that 65% of the Preboard adolescents agreed the impact of meditation intervention on their anxiety level as good (86%). The study concluded that meditation was effective in achieving the goals of the study by reducing the anxiety level of the Preboard adolescents, thereby producing a relaxed, comforting and soothing state in them.

**Introduction:**

Life is full of challenges and becoming complex and complicated day by day for the adolescent students as the emergence of globalization had enhanced the feeling of competition in the world of academics as well as in the world of work. The reasons for which are excessive workload, pressure, cut throat competition, feeling of quality consciousness, constant comparison with others, desire to achieve more and more, constantly striving for excellence in order to stand out with others, trying to control everything. They have the baggage of their parent's unfulfilled dreams considering the adolescent students tools for accomplishing their dreams. The constant pressure on the students of achieving the educational goals is overriding the active meaningful learning thus, making the students anxious and stressed. This breakdown has adverse effects as it leads to the self communicable negativity, stress and anxiety.<sup>1</sup>

The anxiety problem among students cannot be swept under the carpet.<sup>2</sup> Although, broader strategies for global adolescent mental health have been well detailed elsewhere, it is worth reiterating, that measures such as general and

specific prevention education, self help strategies and resources, psychosocial support networks and services can be embedded in the educational settings.<sup>3</sup>

**Background of the study:**

Every year there are cases of anxiety which are being reported in children and teens. Undiagnosed anxiety can negatively impact the ability to learn and enjoy time in the school leading to poor performance and learning, poor self respect and low self-esteem.<sup>4</sup> Long term anxiety can lead to physical and mental damage, a decline in academic performances, quality of life, interpersonal tension and other issues in the students<sup>5</sup> disrupting psychological functioning and manifesting as physiological symptoms, such as elevated blood pressure, sweating, dizziness, or increased heartbeat.<sup>6</sup>

Schools are searching for innovative ways like meditation to meet the unique academic, social, emotional and behavioural needs of adolescents. Types of meditation offered in school based settings include mindfulness meditation, the relaxation response and Transcendental Meditation. These practices, as cognitive behavioural interventions available for use by

school professionals, helps students to enhance the academic and psychosocial strengths improving self regulation capacities and coping abilities.<sup>7</sup>

Meditation first originated in India a long time ago. The oldest documented evidence of the practice of meditation were wall arts in the Indian subcontinent from approximately 5,000 to 3,500 B.C, showing people seated in meditative postures with half closed eyes. The oldest written mention of meditation is from 1,500 BCE in the Vedas. The *Brihad Aranyaka Upanishad* (14th century BCE) lists nearly 70 generations of mediation gurus and students who have existed. Most likely the first meditation technique to be invented / discovered was either mantra meditation or gazing. The first time collection of scientific studies on meditation was made in 1997 by James Funderburk, a student of Swami Rama of the Himalayan International Institute of Yoga Science.<sup>8</sup>

**Need of the study:**

Anxiety is a human emotion which everyone experiences in unique ways.<sup>9</sup> It is a feeling of uneasiness and worry, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing; characterized by an unpleasant state of inner turmoil including unpleasant feelings of dread over anticipated events; accompanied by nervous behavior such as pacing back and forth, somatic complaints, and rumination.<sup>10</sup>

Anxiety disorders are the most prevalent mental health concern facing adolescents today, yet they are largely undertreated, which can continue into adulthood, growing in severity. Studies have demonstrated that school difficulties, decline in school performance and even high school non completion are associated with anxiety in children and adolescents by some but not all.<sup>11</sup> Existing literatures focusing on the prevalence and comparing level of anxiety between high school grade levels are not wide spread (Muris et al., 2010). The implications of anxiety, what can be done specifically within a school setting, in order to prevent and reduce anxiety concerns leading to ongoing problems should be taken into account.<sup>12</sup> Health Care Professionals esp. Mental Health Workers, educators and others are increasingly interested nowadays in supporting the development of the whole child and not just focusing on their academics.<sup>13</sup>

A study published by Wake Forest Baptist Medical Centre on “Neural Correlates of Mindfulness Meditation Related Anxiety Relief” in the journal *Social Cognitive and Affective Neuroscience* on June 3, 2013, revealed that anxiety was significantly reduced in every session when subjects meditated.<sup>14</sup> The effects of meditation on human being is multi dimensional, therefore, it is important to provide meditation to the adolescents who are suffering from anxiety especially during Preboards. Thus, keeping all the above in view, this study was undertaken.

**Objectives:**

1. Assess the anxiety level of Preboard adolescents before and after the administration of meditation.
2. Compare the effect of meditation before and after as well as between each day of the administration on the anxiety level of Preboard adolescents.
3. Establish the association between the effect of meditation on the anxiety level of Preboard adolescents with the selected demographic variables.
4. Analyze the satisfaction level of the Preboard adolescents after the administration of meditation as feedback.

**Hypothesis:**

H<sub>0</sub>: There will be no significant difference in the effects of meditation on the anxiety level of the Preboard adolescents before and after the administration of meditation.

H<sub>1</sub>: There will be significant difference in the effects of

meditation on the anxiety level of the Preboard adolescents before and after the administration of meditation.

H<sub>2</sub>: There will be significant association between the effects of meditation on the anxiety level of the Preboard adolescents with the socio demographic variables.

**Variables:**

1. Independent variables: Meditation
2. Dependent variable: Anxiety

**Inclusion criteria:**

1. Early Preboard adolescents (class 10<sup>th</sup>) of age group between 14 to 16 years who are studying in selected schools of Patna.
2. Adolescents who are willing to participate after informed consent from parents / guardians.
3. Adolescents who will be consistently present at the time of data collection.

**Exclusion criteria:**

1. Who are mentally ill and suffering from syndromal diagnosable established ODD/ CD/ ADHD/ ASD/ Drug abuse/ Depression/ Anxiety.
2. Who are chronically physically ill.
3. Who are on anxiolytics.

**Brief Research Methodology:**

Ethical clearance was taken from the Institutional Ethics Committee, prior to the conduction of the study.

**Research approach:** Quantitative, Evaluative

**Research Design:** Quasi Experimental, Interrupted Time Series research design.

**Sample and Sample Size:** 100 Class 10th Preboard adolescents

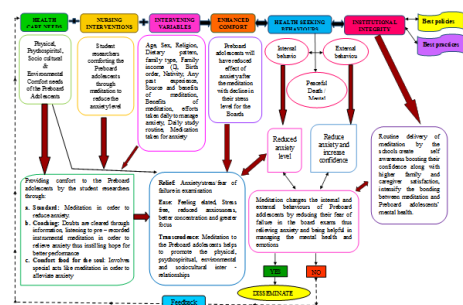
**Sampling Technique:** Non Probability, Purposive Sampling

**Setting:** Vivekanand International School, Vidya Niketan High School, Leeds Asian School.

**Characteristic of study:** Non Invasive procedure

**Validity of the tool:** The validation of the content and the tool was done by 12 experts out of whom 09 were from Nursing viz. 05 from Paediatric Nursing, 02 from Psychiatric Nursing, 01 from Community Health Nursing, 01 from Medical Surgical Nursing; 01 from Child Psychiatric, 01 from Medical Psychiatric; 01 from the field of Music.

**Conceptual Framework: Kolcaba's Comfort theory**



**Fig 1: Conceptual Framework on Katharine Kolcaba's Comfort Theory**

**Method of data collection:**

- Data collection technique and tool: Standardised Anxiety Self Rating, Observation.
- Description of the tool:

**TOOL I:** Consisting of 2 sections:

**Section – 1: Consisting of 14 items:-**

- A) Demographic profile of the Preboard adolescents
- B) General information regarding meditation

**Section – II:** Standardised Anxiety Self Rating 5 point scale consisting of 10 items with maximum score of 40, interpreted as - Minimal anxiety (0 – 8), Mild anxiety (9 – 16), Moderate anxiety (17 – 24), High anxiety (25 – 32) and Extreme anxiety (33 – 40)

**TOOL II:** Self structured Adolescent Satisfaction Feedback Form: Consisted of five point likert scale of 7 items with maximum score of 35.

**Procedure of Data Collection:** Meditation was given to the Preboard class 10th adolescents in the morning and as per the feasibility, convenience of the adolescents, permission by the research centre, and the laid down norms and protocols of the research centre (Schools) on 3 alternative days played on a laptop with a speaker with two observations on each day. The entire cycle comprised of 55 minutes duration. On the first day, the Preboard adolescents were given 5 minutes for reading the Participant Information Sheet (PIS), 15 minutes to fill the demographic performa followed by pre testing of anxiety through Self Rating Standardized Anxiety Scale of 10 min duration before the intervention followed by which meditation was administrated for 15 min to the Preboard adolescents. Finally, after the intervention the Anxiety level was again self reported within 10 minutes by the Preboard adolescents which was observed and assessed through Standardized Self Rating Anxiety Scale. The same process was followed for all the three days except filling of demographic performa. Preboard adolescents' Self reported Satisfaction feedback form of 10 minutes duration, was administered on the last day, at the end of the data collection process.

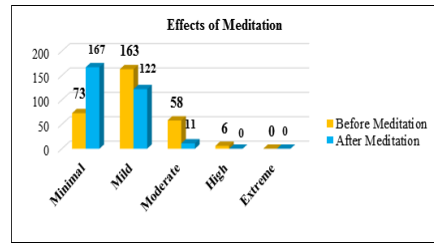
Before starting the study, on the 1st day entire procedure was explained to the adolescents while providing them the Participant Information sheet (PIS), where each and every details of the study process was mentioned for their knowledge and understanding. Vulnerable age group participant informed consent and assent form (PICAF) were taken from the parents of the adolescents too, before starting the data collection.

**Results:**

**Demographic Characteristics:** Majority 49% of the Preboard adolescents were in the aged 14 years 11 months 30 days, 58% males, 98% Hindu, 62% non-vegetarian, 54% were from joint family, 30% family income (₹) / month was ≥ 35,000/-, 45% were second born, 82% resided in urban community, 56% had past experience of meditation, 28% of the Preboard adolescents source of information about meditation was from mass media, 68% knew the benefits of meditation, 36% took efforts daily to manage anxiety from meditation intervention, 51% studied for 4 – 8 hours and 100% of Preboard adolescents did not take any medication for anxiety.

**Table 1: Demographic profile characteristics and overall effects of meditation on the anxiety level in terms of stability N = 100 × 3d = 300**

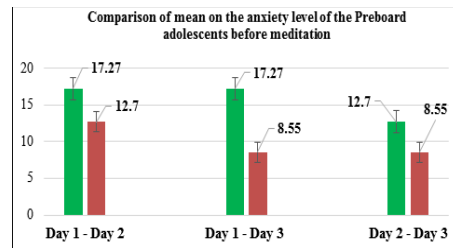
Anxiety level	Minimal n (%)	Mild n (%)	Moderate n (%)	High n (%)	Extreme n (%)	Total n (%)
Before Meditation	73 (24.3)	163(54.3)	58(19.3)	06(2)	-	300(100)
After Meditation	167(54.6)	122(41)	11(3.3)	-	-	300(100)



**Fig 2:** 3D bar diagram showing the overall effects of meditation on the anxiety level of the Preboard adolescents

**Table 2: Effectiveness before Meditation N = 100**

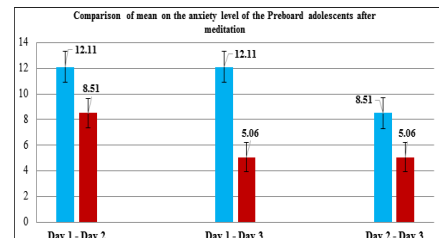
Before Meditation	Mean	SD	SE	Effect t	Paired t	p	Significance
Day 1-Day 2	17.27	4.33	0.43	4.57	19.037	0.001	HS
	12.70	3.49	0.35				
Day 1-Day 3	17.27	4.33	0.43	8.72	25.605	0.001	HS
	8.55	3.11	0.31				
Day 2-Day 3	12.70	3.49	0.35	4.15	19.624	0.001	HS
	8.55	3.11	0.31				



**Fig 3:** Bar diagram showing the comparison of mean on the anxiety level of Preboard adolescents on all the 3 days; before meditation.

**Table 3: Effectiveness after meditation N = 100**

After Meditation	Mean	SD	SE	Effect	Paired t	p	Significance
Day 1-Day 2	12.11	3.55	0.36	3.60	15.987	0.001	HS
	8.51	2.87	0.29				
Day 1-Day 3	12.11	3.55	0.36	7.05	24.337	0.001	HS
	5.06	2.11	0.21				
Day 2-Day 3	8.51	2.87	0.29	3.45	17.455	0.001	HS
	5.06	2.11	0.21				



**Fig4:** Bar diagram showing the comparison of mean on the anxiety level of Preboard adolescents on all the 3 days; after meditation.

**Table 4: Day wise Anxiety level of the Preboard adolescents before and after the administration of meditation N=100**

Anxiety	Mean	SD	SE	Mean %	Effect	Paired t	p	Significance	
DAY 1	Before	17.27	4.33	0.43	41.11	5.79	20.76	0.001**	HS
	After	12.11	3.55	0.36	46.90				

DAY 2	Before	12.70	3.49	0.35	27.9 5	80.4 5	19.7 9	0.00 1**	HS
	After	8.51	2.87	0.29	108. 4				
DAY 3	Before	8.55	3.11	0.31	66.4 3	40.4 7	17.3 4	0.00 1**	HS
	After	5.06	2.11	0.21	106. 9				

**Discussion:**

**1. Effect of meditation in context to reduction of anxiety in the Preboard adolescents:** Mean anxiety level scores after the administration of meditation was  $5.06 \pm 2.11$  was lower than the anxiety level scores before the administration of meditation -  $17.27 \pm 4.33$ . Decrease in the anxiety level, of the preboard adolescents due to the effect of Meditation, was significant & not by chance. Null hypothesis was rejected. The present study was supported by the research done by Miller, Gold, Laye-Gindhu, Martinez, Yu and Waechter, (2011) in their research study found reductions in anxiety symptoms suggesting the use of brief school based programs to eliminate “totally inhibiting anxiety” for students.<sup>12</sup> Semple et al. (2005) found evidence to suggest that meditation based practices are acceptable and potentially helpful to anxious adolescents<sup>13</sup>

**2. Association of effect of meditation on the anxiety level of the preboard adolescents with the selected demographic variables:** Significant association existed between the socio demographic variables of *age and past experience of meditation* of the Preboard adolescents with the effect of meditation at  $p < 0.05$ . Highly significant association existed for *religion* at  $p < 0.05$ . Thus, null hypothesis was rejected.

**3. Preboard adolescents feedback regarding the administration of the meditation:** Study reflected that 65% of the Preboard adolescents agreed the impact of meditation intervention on their anxiety level as good (86%). The study was supported by Broderick and Metz (2009) whereby a majority of students reported being satisfied or very satisfied with the program and that meditation practice was rated as one of the most useful activities by the students. Metz and colleagues (2013) evaluated the effectiveness of the “*Learning to BREATHE*” program whereby the participants reported a high level of satisfaction with the program. 24 students aged 14 – 16yrs reported positively for the overall, feedback regarding mindfulness in the study conducted by Lau and Hue (2011).<sup>15</sup>

**Limitations:-** Limited sample size with observations done for a small time period due to time boundaries of the study and also due to the preset academic routines in the schools.

**Conclusion:** It was concluded that though meditation was effective in reducing the anxiety level of the preboard adolescents yet males and females experienced anxiety differently with adolescent females experiencing significantly higher levels of anxiety than males. The results supported the Kolcaba's comfort theory indicating that meditation was effective as a complementary support for the preboard adolescents, in reducing the anxiety thus indicating that the Preboard adolescents had an innate ability to cope and overcome anxiety thus being comfortable, feeling better both emotionally and mentally as well as physically which can help them to perform better in their board examinations.

**Implications:** The findings of the study have valuable implications towards Nursing education, Nursing practice, Nursing administration and Nursing research with the aim to translate the evidence of this study into guidance, which the healthcare professionals can give to the preboard adolescents and their parents to help them make informed choices about reducing the anxiety, promoting sleep as well

as improve the physical and psychological health. Along with workforce preparation, better leveraging of the services would help improve the reach of effective strategies of meditation implementation in the Preboard adolescents.<sup>16</sup> Meditation can be used in various facets of life and can be practiced at any time, to offer a positive aura within and around the self in order to loosen and escape the restraints and boundaries of anxiety thus shifting from a more distressed and troubled mind to a sangfroid, aplomb and calm mind which is the need of the hour to concentrate and prepare better for the board exams, yielding good results. It's essence continues even after it is terminated.

**Recommendations:**

1. Similar study can be replicated to a larger sample with a control group.
2. Similar study can be conducted in home setting.

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**Conflict of Interests:** The author declares no conflict of interests.

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