

EFFECT OF YOGA BASED INTERVENTION ON ACADEMIC ANXIETY AMONG ADOLESCENT IN RELATION TO GENDER AND TYPE OF FAMILY

Pooja Patel

Ph.D. Scholar, Department of Ashtang Yoga, Lakulish Yoga University Ahmedabad Gujarat
ppoojapatel1496@gmail.com

Prof. Dinesh Panchal

Dean & Professor, Department of Ashtang Yoga, Lakulish Yoga University Ahmedabad Gujarat
dean@lyu.ac.in

ABSTRACT

The aim of the study is to examine the effects of yogic intervention on academic anxiety among adolescents in relation to gender and type of family. For this study, 80 students with ages ranging from 13 to 18 years were selected. They consisted of 40 boys and 40 girls, as well as 40 adolescents who belonged to joined a family and 40 who belonged to a nuclear family. All of them were from Navjeevan Higher Secondary School in Baroda, Gujarat. A pre- and post-singal group study was conducted. The Academic Anxiety Scale(Atieq UI Rehman and M. Abid Siddiqui) was administered to assess the level of academic anxiety. The total number of 44 items on this scale In this study, random sampling was used. Signed informed consent was obtained from all the participants before starting the study. A three-month yoga programme included 55-minute yoga sessions five days a week. The obtained data were analysed using a paired t-test. A significant difference was found in the level of academic anxiety when the pre-data was compared with the post-data. Results revealed that yogic intervention is important to reduce academic anxiety. We conclude that yoga practice enhances students mental health and promotes holistic wellness based on our findings. We recommend further research in this field.

Keywords: Yoga, Academic Anxiety, Adolescence , Family Type

INTRODUCTION

Mental health issues among adolescents are becoming a growing public health concern. According to WHO(09-Mar-2023) The highest recorded rates in the survey's 15-year history were found: 44% of students reported having symptoms of depression, 37% reported having anxiety disorders, and 15% said they had seriously pondered suicide in the previous year. According to a recent UNICEF report (2021), India has the world's highest teenage population, with "253 million people; every fifth person is between the ages of 10 and 19." The adolescent's age is one of the most important life spans of human beings.(Rocliffe et al., 2023) It's the time when the surge of life reaches its highest peak. That's why , It is very Important to develop the best personality of the adolescent during this golden period of life. One of the best development mechanisms is education. There is a race and a tough rivalry everywhere in the educational area in the twenty-first century. Since academic success is necessary for making decisions about the future, students constantly experience pressure and anxiety in their academic fields in order to survive this competition. Academic anxiety, which is caused by this kind of strain and tension in the classroom, causes uncontrollable jitteriness, worry, and panic in pupils (Encyclopaedia of Children's Health).

A small amount of academic anxiety is typical for students with various types of worry, but when it is high, the adrenal glands become more active and a biochemical change occurs in the body and mind (Jay D. Tarnow).(Soni & Singh, 2021) Students who suffer from academic anxiety may experience psycho-physiological symptoms such as headaches, hypertension, drowsiness, and other disorders. There are various yoga techniques that can help decrease academic anxiety in its early stages. Anxiety affects 265 million individuals worldwide. (Rocliffe et al., 2023). Adolescents with mental health issues do poorly in school, receive repeated failing marks, and eventually drop out. (Parajuli et al., 2023). Anxiety disorders can make it hard for people to work or study or to manage daily tasks.

In terms of their overall health and well-being, children can greatly benefit from the art and science of yoga. Yoga is a part of the Yogic route to achieving health and balance and includes advice on a healthy lifestyle, food habits, and mental attitude. (Soni & Singh, 2021) Yoga encourages slow, deep breathing exercises (Pranayama) that help the body and mind relax and also increasing oxygenation. Yoga may be useful for reducing anxiety warning signals since short, choppy breaths are a symptom of anxiety. Yoga has a long history of use as a stress-reduction method to lessen the body's natural reactions to stress as well as an alternative to exercise. The yoga-based way of life involves developing good habits (Yamas and Niyamas), practising physical postures (asanas), managing one's breath (pranayama), controlling one's senses (pratyahara), and engaging in meditation (dharana, dhyana, and samadhi). Iyengar BKS (2018).

Thus, intervention is required to improve adolescents' mental health, self-control, and mindfulness. Yoga is one form of physical activity that is important for promoting good health. (Günebakan & Acar, 2023) Adolescents' mental health, self-control, and mindfulness can all benefit from the practice of yoga. A scientific study demonstrated that yoga greatly decreases tension and anxiety. Depression and the quality of life are also reduced. (Parajuli et al., 2023) Yoga seems to have positive effects on brainwave activity in terms of stimulating the activation of alpha brainwaves, which have been associated with improvements in cognition, memory, and mood. (Shaikh et al., 2023) Even a systematic review reported that mindfulness-based interventions like yoga and meditation are efficacious in improving the attention of children and adolescents. Yoga reduces anxiety in children and adolescents. (Parajuli et al., 2022)

OBJECTIVES

1. To know the effect of yogic intervention on academic anxiety among adolescent boys.
2. To know the effect of yogic intervention on academic anxiety among adolescent girls.
3. To know the effect of yogic intervention on academic anxiety among adolescents of joint family.
4. To know the effect of yogic intervention on academic anxiety among adolescents of Nuclear family.

HYPOTHESIS

1. There is no Significant effect of yogic intervention on academic anxiety among adolescent boys.
2. There is no Significant effect of yogic intervention on academic anxiety among adolescent girls.
3. There is no Significant effect of yogic intervention on academic anxiety among adolescents of joint family.
4. There is no Significant effect of yogic intervention on academic anxiety among adolescents of nuclear family.

SAMPLES

The subjects of the present study are 80 students with ages ranging from 13 to 18 years studying in Navjeevan higher secondary schools in Vadodara, Gujarat. The sample consisted of 40 boys and 40 girls, the same as 40 adolescents who are belonging joint family and 40 who are belonging to a nuclear family. A random sampling was done to select the best and most interested samples.

RESEARCH DESIGN

A single group pre-post research design was used for this study.

Tools for Data collection

The AAS (Academic Anxiety Scale) Questionnaire was used to assess the anxiety levels of students between the ages of 13 and 18 years. This tool, developed by Dr. Mohd. Abid Siddiqui and Dr. Atieq UI Rehman (asst. professor, Dept. of Education, University of Jammu), was used to collect data. This scale is taken from the National Psychological Corporation's Agra questionnaire, which has a total of 44 items.

• Scoring

| Sr.No. | Type of Item | Agree | Undecided | Disagree |
|--------|--------------|-------|-----------|----------|
| 1. | Positive | 1 | 2 | 3 |
| 2. | Negative | 3 | 2 | 1 |

• Reliability

The reliability of the scale was decided by split-half method (odd-even). It was calculated on N=600 and was found to be $r=+0.85$ which is highly significant at .01 level of significance.

• Validity

The validity of the scale was decided by two methods :

1. Selection of items by experts in the field. The experts had unanimously decided the dimensions of the scale and had selected the preliminary tryout draft by rejecting items. In this way the experts had rejected 16 items from the pool of 70 items and as such the first tryout draft had 54 items.
2. The final selection of the items from the tryout draft of 54 items was done by item analysis and only those items were selected which had minimum 'r' significance at .05 level of significance. As such 10 items were further dropped and the final form of the scale includes 44 items. As such it could safely be said that the scale has concurrent validity.

Procedure of Intervention :-

Before starting the intervention, permission was obtained from the school principal, and participants filled out a written consent form with signed consent. The institutional committee approved the research study. . Total 80 Adolescent were randomly selected from Nav jeevan high school of vadodara. Data collection were administered in two phases. In the first phase before introducing yogic intervention Academic Anxiety scale were administrated in small manageable group of participants. After completion of data collection scoring was done as per the scoring key of each scale. In second phase, Yogic Intervention applied five days a week daily 55 minutes for three months . After completion of Yogic Intervention again Academic Anxiety scale were given to the participants for retest. After completion of the data collection responses of each participant on these scales scoring was done by the scoring key of the manual of the scale.

DATA ANALYSIS

Data was entered in the Excel sheet and analysed by online Graphpad using the paired t-test to analyse the academic anxiety levels. Zotero software was used to cite the references.

Intervention Module

Table 1: The table shows the yogic Intervention Modules for Academic Anxiety

| | |
|---------------|--|
| For 5 min | Gayatri mantra(3 times), Guru Vandana (prayer) |
| For 15 min | Warm-up (yogic-joging , starching, bending , twisting , jumping , joints rotation precticies) TTK (Tadasana , Tiryktadasana , kati-chakrasana) Standing Asana (vrikshasana , garudasana , natrajasana , ardh chandrasana) Sitting Asana (ardh mtshyendrasana, mandukasana , shashankasana,pachchimotanasana) Chakrasana , halasana ,bhujangasana , makarasana Surya Namaskar (3-4 Round) |
| For 5 min | Pragya Yog with 16 step (3-4 Round) |
| For 5 min | Savasana (relaxation) |
| For 10 min | Breathing practice Anulom vilom pranayam Bharami pranayam pranakarsan pranayam Nadisodhan pranayam |
| For 5 min | Meditation |
| For 3 - 4 min | Shanti path |

RESULTS & DISCUSSION

Table 2 : Result table showing mean SD SEM and t value of pre -post academic anxiety among various group of adolescent.

| Group | Test | N | Mean | SD | SEM | t | Level of significant |
|------------------------------|------|----|-------|-------|------|------|----------------------|
| Adolescent Boys | pre | 40 | 77.48 | 13.02 | 2.51 | 4.45 | 0.01 |
| | post | 40 | 70.89 | 13.2 | 2.54 | | |
| Adolescent Girls | pre | 40 | 72.05 | 9.97 | 1.58 | 2.05 | 0.05 |
| | post | 40 | 68.98 | 10.86 | 1.72 | | |
| Adolescent of Nuclear Family | pre | 40 | 73.93 | 12.22 | 1.93 | 2.95 | 0.01 |
| | post | 40 | 69.58 | 11.13 | 1.76 | | |
| Adolescent of Joint Family | pre | 40 | 66.9 | 9.45 | 1.49 | 2.12 | 0.05 |
| | post | 40 | 63.58 | 8.11 | 1.28 | | |

Discussion

1. The Present study showed that pre and post yogic Intervention, the pre-Mean &SD score of Academic Anxiety of Boys Adolescent was 77.48&13.02 and post-Mean &SD score was 70.89&13.2. The t-value of Academic Anxiety of Boys Adolescent was 4.45; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p < 0.01$) among Boys Adolescent .
2. The pre-Mean &SD (Standard Deviation) score of Academic Anxiety of Girls Adolescent was 72.05 &9.97, and the post Mean &SD score was 68.98&10.86. The t-value of Academic Anxiety of Girls Adolescent was 2.05; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p < 0.05$) among Girls Adolescent,
3. The pre-Mean &SD score of Academic Anxiety of Nuclear Family Adolescent was 73.93 &12.22, and the post-Mean &SD score was 69.58&11.13 The t-value of Academic Anxiety of Nuclear Family Adolescent was 2.95 ; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p < 0.01$) among Nuclear Family Adolescent.
4. The pre-Mean &SD score of Academic Anxiety of Join Family Adolescent was 66.9 &9.45, and the post-Mean &SD score was 63.58&8.11. The t-value of Academic Anxiety of join Family Adolescent was 2.12 ; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p < 0.05$) among joint Family Adolescent.

According to (Divyansh Jain, 2021), this Study," Impact of Yoga Intervention on Exam Anxiety, Mindfulness, Attention & Memory in School Going Children "; found that after one month of yoga intervention practice, Mean score (M) illustrated that the yoga group had higher score (test anxiety; M = 161.93, SD = 28.376) at baseline than the control group (M = 140.46, SD = 21.874). Results of the ANCOVA found that the magnitude of increase in test-anxiety score in the yoga group was significantly lower compared to the control group. According to (Kumar & Singh, 2017) , the study "Application of Super Brain Yoga for Academic Anxiety Management in Adolescence " found that after yogic practice daily for half an hour for thirty days , The experimental group's fifty students' pre- and post-test results on their levels of academic anxiety were 18.7 and 16.3 respectively, with pre- and post-test SDs of 5.09 and 4.90, respectively. At a confidence level of 0.001, the obtained t value is 5.21, which is statistically significant. Thus, the current study proved that the effect of yoga-based interventions on adolescent academic anxiety decreased significantly according to gender and type of family.

CONCLUSION

1. Due to yoga-based intervention significantly reduce academic anxiety among adolescent boys.
2. Due to yoga-based intervention significantly reduce academic anxiety among adolescent girls.
3. Due to yoga-based intervention significantly reduce academic anxiety among adolescent of nuclear family.
4. Due to yoga-based intervention significantly reduce academic anxiety among adolescent of joint family.

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