

An Experimental Study To Evaluate The Effectiveness Of Meditation On Reduction Of Examination Stress Among 10th Class Students In Selected School Of Kanpur, Up

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Abstract

Examination stress is a non-specified stress that has been generated when the expectations of the parents, oneself is an ultimate goal for the students and Meditation is the technique that is proved to be successfully reducing the stress of an individual. Meditation leads to the deepest state relaxation and tranquilize the mind of a person. The objectives of the study were to assess the level of examination stress to determine the effectiveness of the Meditation on reduction of examination stress and find the association of pre-test level of examination stress with their selected demographic variables. A quasi experimental one group pre-test post-test research design was adopted by the investigator among 60 10th class students from selected school of Kanpur, U.P. by using a non-probability purposive sampling technique. Structured Academic Stress Scale was used to assess the examination stress in students and effectiveness of meditation on stress reduction. The results of the study shown that the pre-test mean score (63.2) is higher than the post-test mean score (53.2) of level of examination stress. The calculated 't' value (6.9) was greater than the tabulated value at 0.05 level of significance, that denotes the significant difference between pre-test and the post-test level of examination stress. The chi-square test which drawn the result that there was no significant association between the level of examination stress of 10th class students with their selected demographic variables.

Keywords: Examination stress, Meditation, 10th class students, School.

Introduction

Stress. What is stress? In general it is just a six letter word but can prove to be potent symbol for hampering the mental health maintenance and further can even result in the mental illness and have the ability to influence every generation of human race. A stressor in any individual or condition that generate anxiety responses. Depression is one of the principle root of mental ailment around the globe. The World Health Organization in 2006, given a rough calculation that this will be the second global disability in the succession to heart diseases by 2020.¹ World Health Organization has stated the mental health as a state of well being in which an individual comprehend his or her own competence of proficiency and can fend with the conventional stresses of their living.² Meditation is a enactment in which an individual uses a practical approach - such as mindfulness, line of thinking or activity and accomplish a mentally limpid and emotionally tranquil and equilibrium state of mind and body relationship.³

Need Of The Study

Examination stress is the emotional strain and anxiousness which emerges from evaluative conditions. Examination stress may prove to be troublesome when it hinders your potential to bring off and accomplish your scholastic and learning goals.⁴

A scrutinization was done on undergraduates discovers shocking statistics of stress among students. It has been found that a month earlier than examinations, just 13% of students was having high level of stress but one week priorly at the time of examinations, 82.2% undergraduates was having high stress level.⁵

Global Scenario: Globally 16% of youth or undergraduates between marked age of 10-19 years contributes to the whole population and according to UNICEF (2021) higher than 1-7 undergraduates aged between 10-19 years per 100 has been roughly calculated are living with a diagnosed mental disorder.⁶

Indian Scenario: Approximately 243 million of the undergraduates resides in India as per UNICEF and it's like 21% of country's whole population. As per the reports (2022) 63.5% undergraduates are found to be under stress because of their vocational or educational burden.⁷

Uttar Pradesh Scenario: A descriptive study has been conducted in the Intermediate Colleges of Azamgarh district Uttar Pradesh by descriptive survey method on 165 samples and results drawn the result that 51.51%

undergraduates reportedly going through moderate level of stress, while 24.85% undergraduates & 23.64% undergraduates reported with low and high level of academic stress respectively.⁸

Objectives

To assess the level of examination stress among 10th class students in selected school of Kanpur, U.P.

To evaluate the effectiveness of meditation on reduction of examination stress among 10th class students in selected school of Kanpur, U.P.

To find out the association between the effectiveness of meditation and the level of examination stress among 10th class students with their selected demographic variables

Hypothesis

NULL HYPOTHESIS-

H₀₁- There is no significant difference between the pre-test and the post-test level of examination stress score among 10th class students.

H₀₂- There is no significant association between the level of examination stress with their selected demographic variables.

POSITIVE HYPOTHESIS:

H₁- There is a significant difference between the pre-test and the post-test level of examination stress score among 10th class students.

H₂- There is a significant association between the level of stress with their selected demographic variables.

METHOD

An quantitative evaluative research approach and Quasi experimental one group pre test post test research design has been used selected by the researcher to evaluate the effectiveness of Meditation on reduction of examination stress among 10th class students. The study was conducted in selected school of Kanpur. The sample of the study was 10th class students in selected school of Kanpur. The sample size was determined by using Krejcie-Morgan formula and 60 samples were selected by non-probability purposive sampling technique.

INSTRUMENTS

A structured academic stress scale was developed by the investigator and validated by the experts.

Section A: This covers the demographic variables of the study that are their age, gender, type of family, religion, area of residence, medium of education, previous exposure to any stress reduction/mindfulness technique, academic performance in IX standard, number of siblings and parental status.

Section B: It carries a Academic Stress Scale to assess the level of examination stress of the 10th class students. The scale contains 40 test items which covers the 5 categories of the stress that were No stress (NS), Slight stress (SS), Moderate stress (MS), High stress (HS) and Extreme stress (ES) for which given scores for each item was 0, 1, 2, 3, 4 respectively. And the maximum marks will be 160. As per the sum of the scores of the subjects they got categorized which is shown by the below mentioned table:

$$Percentage = \frac{\text{Obtained score}}{\text{Total score}} \times 100$$

Table no. 1 Stress as per obtained score of the students

SR. NO.	LEVEL OF STRESS	SCORE	RANGE
1.	No Stress (NS)	0 – 32	0 – 20%
2.	Slight Stress (SS)	33 – 64	21 – 40%
3.	Moderate Stress (MS)	65 – 96	41 – 60%
4.	High Stress (HS)	97 -128	61 – 80%
5.	Extreme Stress (ES)	129 - 160	81 - 100

Validity of the content of the structured Academic stress scale has been validated by the psychiatric nursing experts The pilot study has been done on 6 10th class students having same characteristics. The reliability of the tool has been calculated by the use of test retest method of Karl Pearson's correlation coefficient and the value of r for academic stress scale was r=0.97 (acceptable range is 0.7-1).

Data Collection

Priorly the researcher took the Bramhakumaris, Rajyoga Meditation classes for the 21 days and learnt about the principles and practice prior to the implementation of the intervention then the visualization guided meditation was implemented on the students for the 15 days excluding Sundays. The data was collected with official written permission from the selected school. The investigators involved the 60 sample as per the inclusion criteria of the study. The pre test for the assessment of level of examination stress was done by the academic stress scale. Then administration of intervention that is demonstration of the Meditation was given to the samples for 15 days in a row excluding Sunday. After 15 days the post test was done with the same academic stress scale to evaluate the effectiveness of Meditation on reduction of examination stress.

Ethical Consideration

The ethical permission for the study was taken by the ethical committee of Faculty of Nursing, Rama University. The participants were explained the nature and purpose of the study. They had made sure that the collected data from them will remain confidential. Written informed consent was obtained from the participants.

Results

In pre test 6(10%) was having no stress, 30(50%) has slight stress, 17(28%) of the students was having moderate stress, 7(12%) was having high stress and none of the students had extreme stress and in post test 10(17%) was having no stress, 35(58%) has slight stress, 15(25%) of the students was having moderate stress and none of the students had high stress and extreme stress.[Table 2]

TABLE 2: Frequency And Percentage Distribution Of Pre Test And Post Test Level Of Examination Stress Among 10th Class Students

Level of examination stress	Pre-test Frequency, n (%)	Post-test Frequency, n (%)
No Stress	6 (10%)	10 (17%)
Slight Stress	30 (50%)	35 (58%)
Moderate Stress	17 (28%)	15 (25%)
High Stress	7 (12%)	0 (0%)
Extreme Stress	0 (0%)	0 (0%)
Total	60 (100%)	60 (100%)

The mean and standard deviation of pre test level of examination stress is 63.2 and 24.4 and for the post test is 53.2 and 20.8 correspondingly. It is observable that the paired “t” value for level of examination stress was 6.9 and p value was at 0.05 level which manifests that the intervention was efficacious in reducing the examination stress of the students. H₁ i.e. there is a significant difference between the pre test and the post test level of examination stress among 10th class students. [Table 3]

Table 3: Mean And Standard Deviation Of Pre Test And Post Test Level Of Examination Stress Among 10th Class

LEVEL OF EXAMINATION STRESS	MEAN	SD	P
Post Test	63.2	24.4	Significant
Pre Test	53.2	20.8	At 0.05 level

SD: Standard Deviation

The association between pre test level of examination stress score with selected demographic variables such as age, gender, type of family, religion, residence, medium of education, previous exposure to any mindfulness activity, academic percentage in IX standard, no. of siblings and parental status are non-significant. Therefore H₀₂ i.e. there is no significant association between the level of examination stress with their selected demographic variables is approved.

Table 4: Association Between Pre Test Level of Examination Stress With The Selected Demographic Variables

Demographic Variables	Stress Score	Chi Square	Significant/Non-Significant

	NS	SS	MS	HS	ES		
AGE							
15 years & below	5	15	11	2	0	X ² =5.39 df=12	Non-Significant
16 years	1	13	5	5	0		
17 years	0	2	1	0	0		
18 years & above	0	0	0	0	0		
GENDER							
Male	4	14	11	4	0	X ² =1.79	Non-Significant
Female	2	16	6	3	0	df=4	
TYPE OF FAMILY							
Nuclear	6	15	12	6	0	X ² =7.8 df=8	Non-Significant
Joint	0	11	4	1	0		
Extended	0	4	1	0	0		
RELIGION							
Hindu	6	30	1	5	0	X ² =10.5 df=12	Non-Significant
Muslim	0	0	1	1	0		
Christian	0	0	2	1	0		
Other	0	0	0	0	0		
RESIDENCE							
Rural	4	7	2	2	0	X ² =7.3 df=4	Non-Significant
Urban	2	23	15	5	0		
MEDIUM OF ENGLISH							
English	6	30	17	7	0	X ² =0 df=4	Non-Significant
Hindi	0	0	0	0	0		
PREVIOUS EXPOSURE TO ANY MINDFULNESS ACTIVITY							
Yes	2	8	5	1	0	X ² =0.68	Non-Significant

No	4	22	12	6	0	df=4	
ACADEMIC PERCENTAGE IN IX STANDARD							
50% & below	2	7	6	1	0	$X^2=2.47$	Non-Significant
50%-70%	3	15	9	4	0	df=8	
70% & above	1	8	2	2	0		

NO. OF SIBLINGS							
Nil	1	3	0	0	0		
One	2	19	9	4	0	$X^2=9.9$	Non-Significant
Two	3	8	7	2	0	df=12	
More than 2	0	0	1	1	0		

PARENTAL STATUS							
Alive & together	6	29	16	7	0		
Alive & separate	0	0	0	0	0	$X^2=0.68$	Non-significant
Single parent	0	1	1	0	0	df=12	
Not alive	0	0	0	0	0		

Discussion

The study discovered that in the group of 60 10th class students 6 (10%) was having No Stress, 30 (50%) was having Slight Stress, 17 (28%) was having Moderate Stress, 7 (12%) was having High Stress and none of the student has Extreme Stress in pre-test and 10 (17%) were having No Stress, 35 (58%) were having Slight Stress, 15 (25%) was having Moderate Stress and none of the student was having High Stress and Extreme Stress in post-test. Thus this denotes that among 10th class students majority of students were having Slight Stress and Moderate Stress and High Stress in pre-test and this got reduced that mostly mass of the students got their decreased level of stress even no students were having High Stress in post-test.

An identical study has been done to assess the level of Examination Stress among senior secondary school students. She included 120 senior secondary school students by using random sampling technique from five different government schools through descriptive survey method. The findings drawn the outcome that mass of the senior secondary school students exhibit Medium Level of Examination Stress that is 65 (54%), 53 (44%) senior secondary school students had Low Level of Examination Stress and rest 2 (2%) had High Level of Stress which signifies that senior secondary students of Shimla had different level of Examination Stress.

Study analysis results discovered that the post-test mean score (53.2) is less than the pre-test mean score (63.2) of level of examination stress. The attained value of t for level of examination stress (6.9) was greater than the table value at 0.05 level of significance, which denotes that there is a significant difference between pre-test and post-test level of examination stress among 10th class students ($P \geq 0.05$). This determines that the Level of examination Stress has been decreased in 10th class students.

A true experimental research has been done to evaluate the effectiveness of 'So Hum' Meditation in reducing the level of stress among the first year BSc Nursing students in college of Nursing in which she selected 60 students by purposive sampling technique and put each 30 students in experimental group and control group which drawn the result that the pre test mean score (155.67) of experimental group has decreased to a remarkable level (48.3) after the intervention but there is no difference found in the mean scores(155.67) of the control group. This shows that 'So Hum' Meditaion is proved to be significant way to reduce the stress.

The association between the pre-test level of Examination Stress among 10th class students such as age, gender, type of family, religion, area of residence, medium of education, previous exposure to any mindfulness activity, academic performance in IX standard, number of siblings and parental status has no significance.

The same true experimental study has been done to evaluate the effectiveness of Mindfulness Meditation on academic stress among adolescents in selected school, the 60 samples has been collected by using simple random sampling technique. The study found that 6(20%) had low stress, 18 (60%) had Moderate Stress and 6 (20%) had High stress in experimental group and 9 (30%) had Low Stress, 17 (57%) had moderate stress and 4 (13%) had High Stress. There is no significant association is found between their level of academic stress with their selected demographic variables.

Limitation

Small sample without a control group becomes a limitation of the study as it prevents generalisability.

Conclusion

The inference can be drawn that the implementation of the intervention that is "Meditation" has created a considerable impact on the reduction of examination stress of the students. Consistent practice of Meditation stand in need for reduction of examination stress or stress.

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Nil.

Conflicts Of Interest

There are no conflicts of interest.

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