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RESEARCH ARTICLE

EFFECTIVENESS OF MINDFULNESS MEDITATION TECHNIQUE ON REDUCING PERCEIVED STRESS AMONG ADOLESCENTS IN SELECTED SCHOOL AT PUDUCHERRY

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ABSTRACT

Adolescence is a stage of ‘Storms and Stresses’. The period of adolescence is of ultimate important in human’s life. In this period a person gets physical, mental and emotional maturity. Adolescents are faced with challenging issues including the puberty, identity formation and transition from childhood to adulthood. Unmanaged stress can cause adolescents with potentially significant health impacts and higher risk for behavioral problems, suicide and risky sexual behavior, smoking, substance abuse, school dropout, self-harm, and poor eating habits. So the practice of mindfulness meditation technique can help the adolescents to reduce stress and improves mental health of adolescents. Quasi-experimental research design with one group pre-test and post-test was adopted. Sixty samples including male and female adolescents in New Modern Vidya Mandir Higher secondary school were selected by using simple random sampling technique (lottery method). The data were collected through interview method and pre-test data collection was done by using Cohen Perceived Stress Scale. Mindfulness meditation technique was administered for the duration of 15-30 min daily for 21 days and the post-test was conducted. The data were analyzed by using paired ‘t’ test and Kruskal Wallis and Mann Whitney test. The study showed that the post-test level of stress of adolescents mean score (6.12) are significantly less than the pre-test level of stress mean score (18.98) by using paired ‘t’ test (21.079). This study reveals that mindfulness meditation technique has highly statistical significance in reduction of stress among adolescents at P-value <0.0001*. This study revealed that the level of perceived stress was high among adolescents. The post-test level of stress score was lower than the pre-test score after administration of mindfulness meditation technique. Thus, this study proves that mindfulness meditation was effective in reducing perceived stress among adolescents.

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INTRODUCTION

Every person’s expectations or desire is to make their life physically and mentally strenuous. The obstacles which prevent the person from achieving them, which may be personal or environmental in nature, can make life stressful. Goldstein introduced a new definition, that is, “Stress is a condition where expectations genetically programmed, established by prior learning or deduced from circumstances do not match the current or anticipated perceptions of the internal or external environment. Many people experience stress as they combine busy lives and the demands of study and or work while trying to also save time for friends and family. For some people, stress becomes almost a way of life. We know that stress over a prolonged period of time can have increase certain health risks. Adolescence is a stage of ‘Storms and Stresses’. The period of adolescence is of ultimate important in human’s life.

In this period a person gets physical, mental and emotional maturity. Everyone is affected by stress and reacts to it in different ways, but adolescents are faced with important and challenging issues including the puberty, identity formation and transition from childhood to adulthood (Elamurugan, 2010). Chronic or unmanaged stress can cause adolescents with potentially significant health impacts and higher risk for anxiety disorders, depression, behavioral problems, suicide and risky sexual behavior, smoking, substance abuse, school dropout, self-harm, and poor eating habits. The results of prolonged stress may cause disruption in the following areas such as physical, emotional, spiritual and social health of adolescents. The practice of meditation technique has one of the cited benefits of stress reduction, which has a positive effect on sleep patterns and the overall well-being of the persons. The practice of meditation technique has also been reported to reduce stress and modify personality characteristics through increased measurement in areas of extraversion, agreeableness, openness to experiences, and emotional stability.

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Need for the study: Globally 1 out of every 10 students is suffering significant distress (<https://www.teenhelp.com/stress-anxiety/teen-stress-statistics>). According to the Centers for Disease Control and Prevention, the Leading Causes of Death Reports in 2016: Suicide is the second cause of death for adolescents due to stress among adolescents. In India about 20 adolescents kill themselves every day due to stress. Research Journal of Pharmaceutical, Biological and Chemical Sciences Reported that in Tamil Nadu out of 60 students academic stress 36(60%) was in moderate level of academic stress, 24(40%) was in severe level of academic stress. Puducherry is ranked as first or second position in suicide rate in India. Around 35.4% suicide victims were youths in the age group of 12-29 years and 33.3% were middle aged persons in the age group 30-44 years due to stress. Among Union Territories, Delhi ranks first in suicidal rate, followed by Puducherry. Mindfulness Meditation gives better relaxation, better concentration, and more self-awareness are the common benefits. Numerous studies and anecdotes from educators point to the positive changes meditation brings to the classroom. So mindfulness meditation used to reducing the stress.

Statement of the problem: "Effectiveness of mindfulness meditation technique on reducing perceived stress among adolescents in selected school at Puducherry"

General objectives

- To assess the level of perceived stress among adolescents.
- To evaluate the effectiveness of mindfulness meditation technique on reducing perceived stress.
- To associate the level of perceived stress among adolescents with selected demographic variable.

MATERIALS AND METHODS

Research design: Quasi – Experimental Design (One group pre-test and post-test design) design was used for this study.

Research approach: The quantitative research approach was used for this study.

Sample: Adolescents who are the age group between 13 and 15 years and who are fulfilling the inclusion criteria.

Sample size: The sample size for this study was 60 patients.

Sample technique: The target population who fulfill the inclusion criteria are selected and sample selected by using Simple Random Sampling Technique (Lottery Method).

Research variables

Independent variable: Mindfulness meditation Technique
Dependent variable: Stress

Sample selection criteria

Inclusion criteria

- a) Adolescents those who willing to participate the study
- b) Adolescents those who are in 13–15 years of age
- c) Those who are available at the time of data collection

Exclusion criteria: Adolescents those who are on leave during data collection

- a) Adolescents those who already participated in same study

Population: Adolescents aged between 13 and 15 years in New Modern Vidhya Mandir Higher Secondary school at Puducherry.

Description of tool

It consists of two parts: Part I and Part II

Part I: Demographic variables include age, gender, standard of studying, religion, residential area, type of family, family income, education of the father, education of the mother, occupation of the father, occupation of the mother, dietary pattern, number of siblings.

Part II: Sheldon Cohen's Perceived Stress Scale

It consists of 10 questions and the questions were asked about the feelings and thoughts during the past month. Each item is rated on a 5-point rating scale ranging from never (0) to almost always (4), positively worded items are reverse scored and the ratings are summed with higher scores indicating more perceived stress. PSS-10 scores are obtained by reversing the scores on the four positive items For example, 0 = 4, 1 = 3, 2 = 2, etc. and then summing across all 10 items. Items 4, 5, 7 and 8 are the positively stated items.

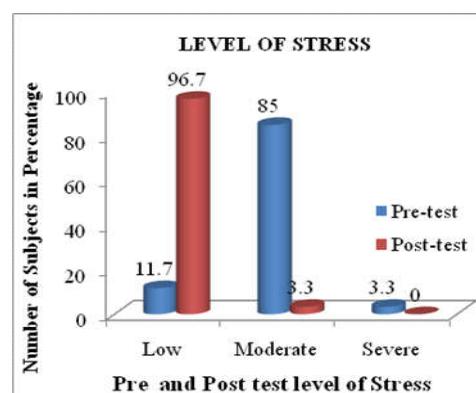
Scoring interpretation

Low stress	Moderate stress	Severe Stress
0–14	14–26	27–40

Research findings: Data will be obtained from the sample will be organized and summarized with to the descriptive and inferential statistics.

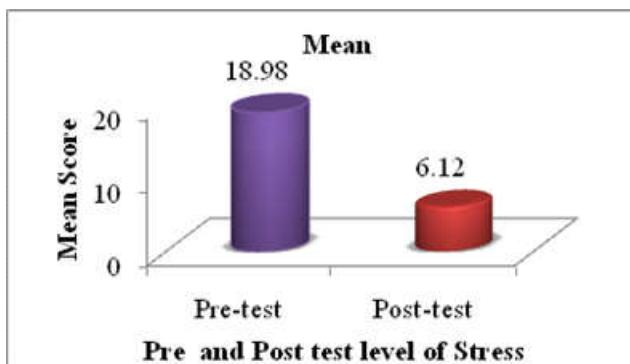
Section A: Describes the Frequency Distribution of Demographic Variables of adolescents with perceived stress such as Age, Gender, Standard of studying, Religion, Residential, etc.

Level of Stress	PRE TEST (N=60)		Post Test (N=60)	
	Number	Percentage	Number	Percentage
Low Stress (0-14)	7	11.7	58	96.7
Moderate Stress (14-26)	51	85	02	3.3
Severe Stress (27-40)	2	3.3	-	-
TOTAL	60	100	60	100



Section B: Assessment of pre-test and post-test level of perceived stress among adolescents.

Test	Mean	Standard deviation	Difference	Paired t-test	p-value
Pre-test	18.98	4.696	12.867	21.079	<0.0001*
Post-test	6.12	3.189			



The above table and graph reveals that in pre-test out of 60 Adolescents, 7 (11.7%) of them have low stress, 51 (85%) of them have moderate level of stress and 2 (3.3%) of them have severe level of stress. After mindfulness meditation technique for 21 days, the level of stress reduced to low stress among 58(96.7%) of adolescents, moderate stress among 2 (3.3%) of adolescents and there is no severe stress.

Section C: Effectiveness of mindfulness meditation technique on level of stress among adolescents

The above table and graph show that in pretest, the mean score was 18.98 with the standard deviation of 4.696 and in the post test mean score was 6.12 with the standard deviation of 3.189 after mindfulness meditation technique. The difference was found Highly Statistically Significant at $p<0.001$ level and can be attributed to the effectiveness of mindfulness meditation technique among adolescents. Hence the stated hypothesis (H_1) was accepted.

Section D: Association between levels of perceived stress among adolescents with their selected demographic variables.

There was significant association between the gender and the level of stress at (0.0014) $p<0.01$ and with the education of mother and the level of stress at (0.002) $p<0.01$ and with the number of siblings and the level of stress at (0.0055) $p<0.01$. Hence the data reveals that the research hypothesis (H_2) is accepted in case of gender, education of mother and number of siblings.

RESULTS

The study finding shown that post-test level of stress mean score (6.12) was significantly less than the pre-test level of stress mean score (18.98) by using paired 't' test(21.079) and there is significant effectiveness of mindfulness meditation technique at p -value <0.0001*. It was revealed that mindfulness meditation technique was effective in reducing perceived stress among elderly adolescents. Hence the stated research hypothesis (H_1) was accepted, i.e. there is a difference in the level of stress before and after mindfulness meditation among adolescents.

Association between the level of perceived stress among adolescents with selected demographic variables there is association between the gender and the level of perceived stress at (0.0014) $p<0.01$ and with the education of mother and the level of perceived stress at (0.002) $p<0.01$ and with the number of siblings and the level of perceived stress at (0.0055) $p<0.01$. Hence the research hypothesis (H_2) was accepted, that is there will be an association between the level of perceived stress among adolescents and the selected demographic variables.

Conclusion

The main study was to assess the Effectiveness of mindfulness meditation Technique on reducing perceived Stress among adolescents in selected school at Puducherry. This study revealed that the prevalence of stress is high among adolescents in schools and the post-test mean level of stress score was lower than the pre-test score after administration of mindfulness meditation. Thus this study proves that mindfulness meditation Technique was effective in reducing perceived stress among adolescents. As a healing technique mindfulness meditation can be given to adolescents on regular basis in order to reduce their stress and teachers also can be trained to use meditation for their students.

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