Original Research

A Pre-Experimental Study to Assess the Effectiveness of Structured-Teaching Programme on knowledge and practice regarding stress management among adolescent Studying in a Selected school at Gurugram

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ABSTRACT:
Aim: A Pre-Experimental Study to Assess the Effectiveness of Structured-Teaching Programme on knowledge and practice regarding stress management among adolescent Studying in a Selected school at gurugram. **Methods:** A total of 50 adolescent studying in the Dronacharya senior secondary school, Farrukhnagar, gurugram were selected by using Non-probability purposive sampling techniques. All the adolescent were 12-18 years of age groups. A quantitative approach pre experimental the one group pre-test and post-test design was adopted to assess the effectiveness of structured-teaching programme on stress reduction techniques among adolescent girls. The instrument used for the study was a structured-questionnaire which consists of two sections. The first section consists of the demographic variables of the adolescent girls and the second section consists of 50 closed ended questions to assess the knowledge regarding stress-reduction techniques. The structured teaching programme on stress-reduction techniques was provided through Audio VisualAids for a period of 30 minutes. A post-test was given after 7 days. The data were analyzed using the descriptive and inferential statistics. **Results:** The students had a significant improvement (P<0.05) in their mean post-test knowledge scores in relation to all the aspects of structured stress assessment Rating Scale among students. The mean knowledge score of Stress level of knowledge among adolescence students in the post test (M=21.06, SD=4.45) was higher than that of in the pre test (M=21.50,SD=5.67). The difference was found to be statistically significant at P<0.001 level which indicates the effectiveness of structured teaching programme on Stress level of knowledge among adolescence students. the Comparison of mean and Standard Deviation of stress management practices assessment score of among adolescence in the post- test ((M=32.6, SD=4.74) was higher than that of in the Pre-test (M=19.3, SD=4.64).The difference was found to be statistically significant at P<0.001 level which indicates the effectiveness of stress management practices among adolescences. **Conclusion:** These findings support a need to promote stress awareness programs as a means of increasing knowledge and practices of stress management to resolving the problems among adolescents.
Keywords: Effectiveness, knowledge, Practices. Adolescence, Stress management, resolving problem

INTRODUCTION

Technically Adolescence is the period from the beginning of sexual maturity (puberty) to the completion of physical growth. The teenage years are also called Adolescence. During this period there will be great amount of growth in height and weight. It is also time for puberty changes. Some adolescents may experience these signs of maturity sooner or later than others. Stress is a very uneasy feeling that we all go through in our life. During adolescence they imbibe both positive and negative things from their parents and environment. The choice they make in this phase is very much dependent upon the upbringing they get and expectations from Family, Society, Peers, and more importantly their own Self. The problem arises when the adolescents are unable to cope with stressful situations and end-up themselves in the distressed state of mind. In this distressed situation they indulge themselves in Anti-Social and Self-Destructive Activities. Stress is a way

of life in the present world. Childhood experiences deeply influence an individual and profoundly affect emotional and physical health later in life. It is learnt that childhood adversities and the associated stress are very common and early trauma and stress lead to predictable patterns of brain development, traits and behaviours. Adolescence is the transition period between childhood and adulthood and it is a period of stress and strain.[1] A number of biologic and environmental stressors such as demands of school, physiologic changes, and adversities like family conflicts and responsibilities, and an uncertain future place adolescents at risk for emotional problems.[2] The impact of unresolved stress may be manifested as depression, eating disorders, elimination disorders, suicidal behaviour and dissociative disorders anxiety, poor concentration, aggression, physical illness, substance abuse etc.[3] Identification of adolescents' stress and stressors is very important and helpful for planning and implementing health promotion as well as prevention programmes in the natural setting of the school. Interventions to manage stress include relaxation techniques which require little effort and may be used at any time. There are several forms of relaxation techniques that include a number of practices such as progressive relaxation, guided imagery, biofeedback, self- hypnosis, deep breathing exercises etc. Adolescents are often helped by interventions to deal constructively with stressors in their lives. It is very much necessary to understand the stressors faced by them and their management of stress. A self controlled stress management technique such as relaxation technique that adolescents can use themselves is thought to be very much beneficial for them. Progressive Muscle Relaxation Technique focuses on tightening and relaxing each muscle group of the body with the goal of consciously producing the body's natural relaxation response, characterized by slower breathing, lower blood pressure, and a feeling of wellbeing.[4] The adolescence is the time of storm and stress. In spite of intense and frequent negative affect this period has been hypothesized to explain increased rates of affective disorders, suicide and accidental death. Yet some teens emerge from adolescence with minimal turmoil. It provides neurobiological model for adolescence which proposes that an imbalance in the development of sub cortical limbic (eg amygdala) relative to prefrontal cortical regions as a potential mechanism for heightened emotionality during this period.[5] The relationship between emotional intelligence (EI) and several addiction related behaviors like gambling, internet use and video games playing in two community based sample of adolescent 13-15 years old (N 209) and 16-18 years old (N= 458) both were measured using.[6] The study linking parents work stress to Adolescents Psychological Adjustment. It reveals that the effects of parental work stress on Adolescents Adjustment appear to be indirect .Work stress is linked to parents feelings of overload and strain, which in turn are related to less positive adjustment of adolescents. In the face of high work stress withdrawing from family involvement may be adaptive in the short run but ultimately problematic.

MATERIAL AND METHODS
This study was conducted in the Dronacharya senior secondary school, Farrukhnagar, gurugram formal permission was obtained from the principal of the school. Consent was taking from the students. subject were explained about the study and confidentiality. Students from standard IXth X, XI and XIIth were included in this study. Students who were not present at the time of data collection were excluded from this study.

METHODOLOGY
RESEARCH APPROACH AND DESIGN
The research approach used for this study is Quantitative approach. The effectiveness of knowledge on stress-reduction techniques was assessed in one group before and after giving a structured-teaching program

SETTING OF THE STUDY
The study was conducted in Dronacharya Senior Secondary School, Farrukhnagar, Gurugram.

TARGET POPULATION
Adolescent girls who are studying in the school. Accessible Population Adolescent who are studying in Dronacharya Senior Secondary School.

SAMPLE SIZE
The sample comprises of 50 adolescent who are studying in the Dronacharya Senior Secondary School.

SAMPLING TECHNIQUE
Non Probability Convenient Sampling technique was used to select subjects from the target population.

DEVELOPMENT OF THE TOOL
Structured-questionnaires and stress rating scale was selected for the study. The tool was developed after adequate retrieval of research studies and under the guidance of nursing and medical experts. The research tool was developed in English after obtaining the experts'opinion.

DESCRIPTION OF THE TOOL
Data collection is planned through self administered structured-questionnaire and stress rating scale regarding stress management which are based on the following aspects.
Tool A: Demographic variables
Tool B: Self structured knowledge questionnaires on knowledge regarding stress management
Tool C: Stress rating scale

Tool D: Structured-Teaching Programme on stress management

RELIABILITY
The reliability of the tool was established by test–retest method using a correlation coefficient method. The reliability was found to be significant (r=0.92).

VALIDITY
The content validity of the tool was assessed by obtaining opinion from five experts in the field of nursing and medicine. The experts suggested reorganization of certain items. Appropriate modifications were made accordingly and the tool was finalized.

DESCRIPTION OF THE INTERVENTION
The structured-teaching programme included introduction, definition of stress, anatomy and physiology of endocrine and nervous system, sources of stress,clinical features of stress, stress management,complication of long term stress and prevention of stress. The investigator carried out the structured-teaching programme in the English for the period of 30 minutes. Appropriate Audio-visual Aid (LCD) was used during teaching programme.

ETHICAL CLEARANCE
Permission was obtained from the Institutional Human Ethical Committee and also from the principal of Dronacharya Senior secondary school. The samples were selected, Informed Consent were obtained from the participants and explained about the purpose of the study Pilot Study: The pilot-study was conducted from for 10% of total sample. During the study, practicability of the tool was assessed. Subjects were given a Pre-test questionnaire to assess the knowledge regarding stress-reduction techniques. After the pre-test, planned LCD teaching programme was given by using the LCD projector and the post-test was conducted for the same samples after 7 days.

DATA COLLECTION PROCEDURE
Data was collected from 50 adolescents who fulfil the sample criteria from 16-11-21 to 3-12-21 using structured-questionnaires and stress rating scale using convenient sampling method. The pre-test knowledge regarding stress-Management was assessed by giving a structured-questionnaire to the adolescent for 30 minutes. Samples were gathered in one room and self administered-questionnaire was given to all the samples. The structured-teaching programme was conducted for each group as planned to make the teaching more effective. Post-test was done after 7 days for the same sample.

PLAN FOR DATA ANALYSIS
The data were analyzed based on the objectives of the study using descriptive and inferential statistics. The plan for analysis is as follows:
1. Frequencies and percentages for the analysis of the demographic data
2. Mean score, percentage and standard deviation for the knowledge score.
3. Computing Kruskal-Wallis test to determine the association between the selected demographic variables and pre-test knowledge score.
4. Paired 't'- test to find out significant differences between the mean values.

RESULTS
Table 1 show that the demographic profile of the participants. Majority of the students had inadequate knowledge in the pre test (54%) whereas in the post test 72% of them have gained adequate knowledge, after the structured teaching programme and practices of stress level of adolescence. The students had a significant improvement (P<0.05) in their mean post-test knowledge scores in relation to all the aspects of structured stress assessment Rating Scale among students. The students had a significant improvement (P<0.05) in their mean post-test knowledge scores in relation to all the aspect of Checklist assessment of students regarding providing with various techniques in resolving the problems related to stress except. Table-2. Reveals that the mean knowledge score of Stress level of knowledge among adolescence students in the post test (M=21.06, SD=4.45) was higher than that of in the pre test (M=21.50,SD=5.67). The difference was found to be statistically significant at P<0.001 level which indicates the effectiveness of structured teaching programme on Stress level of knowledge among adolescence students. Table 3.The Comparison of Mean and Standard Deviation of Pre and Post test on Structured Stress assessment Rating scale among adolescence students regarding in the post-test. The data in table 4 reveals that the Comparison of mean and Standard Deviation of stress management practices assessment score of among adolescence in the post- test ((M=32.6, SD=4.74) was higher than that of in the Pre-test (M=19.3, SD=4.64).The difference was found to be statistically significant at P<0.001 level which indicates the effectiveness of stress management practices among adolescences. Table-5 shows that there was no significant association between the level of post-test knowledge in relation the Religions, Family income per month, Type of family, Residential area and marital status of the parent. Hence the null hypothesis Ho2 is accepted.

Table1: Demographic profile of the participants

AGE	Number	%
Below 12	9	18
12-14	12	24

14-16	15	30
16-18	14	28
EDUCATION STATUS		
9th and 10th	22	44
11th and 12th	28	56
RESIDENCE		
Urban	34	68
Rural	16	32
RELIGION		
Hindu	35	70
Sikh	15	30
FAMILY INCOME PER MONTH		
Below 3000K	**6**	**12**
3000-5000K	**8**	**16**
5000-10000K	**21**	**42**
Above 10000K	**15**	**30**
TYPE OF FAMILY		
Nuclear	29	58
Joint family	21	42

Table2: Comparison of pre and post test Structured Questionnaire for assessing the Stress level of knowledge among adolescence students.

Knowledge	Mean	SD	t
Pre test	21.50	5.67	
Post test	32.06	4.45	13.91**

Table3: Comparison of Pre and Post test on Structured Stress assessment Rating scale among adolescence students.
Write t value here

Knowledge	Mean	SD	t
Pre-test	20.3	5.64	
Post-test	21.8	4.47	13.81

Table4: Comparison of mean and standard deviation of pre test and post test of stress management practices among adolescence.

Knowledge	Mean	SD	t
Pre-test	19.3	4.64	
Post-test	21.6	4.74	13.55

Table5: Association between demographic profile with post-test knowledge scores on stress management among adolescence

AGE	Moderately Adequate (51-75%)=30	Adequate (>75%)20	Chi-square value	Level of significance
Below 12	6	3	2.77	0.53
12-14	8	4		
14-16	9	6		
16-18	7	7		
EDUCATION STATUS				
9th and 10th	12	10	4.26	0.58
11th and 12th	18	10		
RESIDENCE				
Urban	21	13	3.28	0.69
Rural	9	7		
RELIGION				
Hindu	27	8	2.98	0.78
Sikh	3	12		
FAMILY INCOME PER MONTH				

Below 3000k	4	2		0.58
3000-5000k	5	3	3.69	
5000-10000k	12	9		
Above 10000k	9	6		
TYPE OF FAMILY				
Nuclear	21	8	4.02	0.87
Joint family	9	12		

DISCUSSION

Results reveal that adolescents from families with lower parent education are less optimistic than teens from more educated families. This pessimism may be a mechanism through which lower SES increases stress in adolescence.[7] The effectiveness of a cognitive intervention to help adolescents cope with stress and other forms of negative emotional arousal. The trained adolescents showed significant reductions in levels of anxiety and anger, and also improvement in self-esteem.[8] In the present study says that the Comparison of Mean and Standard Deviation on Structured Stress assessment Rating scale among adolescence students in the post- test (M=21.8,SD=4.47)was higher than that of in the Pre-test (M=20.3,SD=5.64). Comparison of mean and Standard Deviation of stress management practices assessment score of among adolescence in the post-test ((M=32.6, SD=4.74) was higher than that of in the Pre-test (M=19.3, SD=4.64).The difference was found to be statistically significant at P<0.001 level which indicates the effectiveness of stress management practices among adolescences. This Ho1 is rejected. There was no significant association between the level of post-test knowledge in relation to Religious, Family income per month, Marital status of the parent, Type of family and Residential area.

CONCLUSION

These findings support a need to promote stress awareness programs as a means of increasing knowledge and practices of stress management to resolving the problems among adolescents.

REFERENCES

1. Ann C. Crociter and Mathwew F.Bumpus. linking Parents work stress to Adolescents Psychological Adjustment. Psychological Science: A Journal of the Association for Psychological Science October 2001 ;10 (5): 156-159.
2. Bhola,P.,Kapur,M.Prevalence of emotional disturbance in Indian adolescent girls. Indian Journal of Clinical Psychology.2000;27(2),217-221.
3. BJ Casey, Rebecca.M.Jones et al. Storm and Stress of Adolescence: Insight from Human Imaging and Mouse Genetics. Devpsychobiol. 2010; 52(3) 225-235.
4. Byrne, D.g .Davenport, S.C., & Mazanov, J. Profiles of adolescent stress; The development of adolescence stress questionnaire(ASQ). Journal of Adolescence.2007;30, 393-416.
5. Compas,B.E.,Connor-Smith,J., & Jaser,S.S. Temperament ,Stress reactivity, and coping ;Implications for depression in childhood and adolescence .Journal of Clinical Child and Adolescence Psychology.2004;33,21-31.
6. Daniel .M. Finkelstein et al. Socio-Economic Differences in Adolescent Stress: The role of Psychological Resources. Journal of Adolescent Health.2007;40(2):127-134.
7. Mark Scott Smith et al. Relaxation Training , Meditation, Hypnosis and Biofeedback: Appropriate Clinical Applications. Dept of Pediatrics university of Washington school of Medicine. CLIN PEDIATRY.1987;26 (11): 581-585.
8. Memmott, R.J.Marett,K.M., Bott,R.L.,& Duke,L. Use of the Neumann system model for interdisciplinary teams. Online Journal of Rural Nursing and Health Care2000;1(2),35- 43