CLINICAL STUDY

Effectiveness of Self-Instructional Module on Knowledge Regarding Effect of Outdoor Games in Stress and Anxiety Reduction Among Adolescents

B RAJESH

ABSTRACT

This study was aimed at finding the effectiveness of self-instructional module on knowledge regarding the effect of outdoor games in stress and anxiety reduction among adolescents at a selected junior college in Bhadrachalam, Telangana. Purposive nonprobability simple random sampling technique was adopted to select 60 participants. Self-structured tool was used to collect the data. The results revealed that in the pre-test, majority of the respondents (66.7%) had inadequate knowledge, 33.3% had moderate knowledge and nobody had the adequate knowledge regarding the effect of outdoor games on stress and anxiety reduction, and the percentage mean and the standard deviation was 49.7 and 5.83. The self-instructional module on the effect of outdoor games on stress and anxiety reduction was distributed after pre-testing on the same day. In the post-test, majority of the respondents (86.7%) had adequate knowledge, and 13.33% had moderate knowledge while nobody had inadequate knowledge regarding the effect of outdoor games on stress and anxiety reduction, and the percentage mean and the standard deviation was 81.2 and 6.33. The paired 't' test value was 27.51. The calculated 't' value was greater than table value (0.05, 59df) = 2.00. Hence, the null hypothesis (H_0) was rejected and research hypothesis (H_1) was accepted. This indicates that there is a significant difference between mean pre-test and post-test knowledge scores of adolescents. It was concluded that the self-instructional module has been effective in increasing knowledge of adolescents regarding effect of outdoor games on stress and anxiety reduction.

Keywords: Knowledge, self-instructional module, stress, anxiety, outdoor games

Most of the people and students experience stress and anxiety in their daily busy schedule. Stress refers to a demand that the brain or physical body is exposed to. Students can report feeling stressed when they face several demands. The feeling of being stressed can be incited by an event that has the potential to make someone feel frustrated or nervous. Anxiety can be a reaction to stress. The level of the anxiety of each student is due to various factors, such as gender, age, level of education, etc.

The term stress has now become so infused into our thoughts that sometimes it feels that it has always been there. Stress can occur in students. From the large number of stresses faced by students and young adults, academic stress emerges as a significant health problem. In recent years, it has been estimated that 10% to 30% of students experience academic-related stress. Academic burden, unrealistic ambitions, lack of opportunities, and competitiveness are some of the sources of stress which give rise to fear and anxiety.

Stress is an individual's physical, mental and emotional reaction to a condition that disturbs the normal equilibrium. If stress is intense, continuous or repeated, if the person is unable to cope or if support is lacking, then it becomes a negative phenomenon leading to physical illness and psychological disorders. Stress is nothing but a state of mental and emotional strain. Playing stress relief games is a good way to get rid of anxiety and depression. Games relieve stress a lot faster than traditional relaxation techniques or methods. Games can give effective and instant stress relief solutions.

Assistant Professor
Teerthanker Mahaveer University, Moradabad, Uttar Pradesh
E-mail: gnanraj1986@gmail.com

Anxiety is a natural response to a perceived or imagined threat. It is as natural as many of the emotions that we go through in everyday situations. Anxiety acts like our body's alarm system, warning us of possible dangers or difficulties. Anxiety refers to apprehension or uneasiness that develops from expectation of danger, whose source is not known. College students require significantly more effort than students of high school. College students are expected to become more independent and instructors are usually more demanding and work is more difficult. As a result of increased demands, college students to experience greater levels of stress related to academics.

A study of over 1,00,000 students by Penn's Center for Collegiate Mental Health noted that more than half of the students visiting campus health clinics had anxiety as a concern. The finding was substantiated by the American College Health Association (ACHA) 2015 National College Health Assessment survey, reporting that around 15.8% of college students had been diagnosed with, or treated for, anxiety. The survey noted that 21.9% of students stated that within the last 1 year, anxiety had impacted their academic performance, characterized by getting a lower grade on an exam or a major project, receiving an incomplete or dropping a course. That increased from 18.2% in the ACHA's 2008 survey.

Outdoor games/activities may be followed to find peace in nature, enjoy life and relax and can also be used as a medium in education and team building. The outdoors may meet the needs of physical health, risk-taking, building social ties and may also fulfil the needs of achievement. The outdoors can serve as an environment where people show what they can do.

The average age of onset for many mental health conditions seems to be the usual college age range of 18 to 24 years. In fact, according to the National Institute of Mental Health, 75% of all individuals with an anxiety disorder will experience symptoms before age 22. Other students, who might not have clinical anxiety, stress or depression, still suffer. According to the 2006 ACHA survey, 45% of women and 36% of men felt so depressed that it was difficult to function.

The goals of this study are to promote health, to preserve health, and to minimize suffering from stress and anxiety of the students. The goals are embodied in the outdoor games. Successful reduction of stress and anxiety can be achieved through the cost-effective and joyful method of playing outdoor games. From all the findings, we came to the conclusion that stress and anxiety are the major problems experienced by students. So, a self-instructional module on knowledge regarding effect of outdoor games on stress and anxiety reduction will help to improve the knowledge of college students.

MATERIAL AND METHODS

The quantitative research approach with one group research design was adopted in this study. Non-probability simple random sampling technique was used to select the participants (n = 60). The tool used for the study was organized as Section I- Sociodemographic data, and Section II- Structured questionnaire, to assess the knowledge regarding the effect of outdoor games on stress and anxiety reduction. The self-instructional module on the effect of outdoor games on stress and anxiety reduction was distributed after pre-testing on the same day. All the items in the questionnaire were prepared based on the reviews, previous studies, journals, magazines, research articles and studies related to stress and anxiety reduction. Ten experts constituting 3 psychiatrists, 2 psychologists and 5 mental health nursing personnel validated the tool. The reliability of the tool was computed by using split half technique. The Karl Pearson's coefficient correlation method was used to check reliability. The calculated 'r' value was 0.90. It indicates that the tool which is taken by the researcher is reliable, valid and predictable of the desired objectives. The data was analyzed by using descriptive and inferential statistics.

RESULTS

Figure 1 shows the classification of respondents according to their knowledge level in the pre-test. The data showed that majority of the respondents (66.7%) had inadequate knowledge, 33.3% had moderate knowledge and none had adequate knowledge regarding stress and anxiety reduction by outdoor games.

Figure 2 shows the classification of respondents according to their knowledge level in the post-test. The data showed that majority of the respondents (86.7%) had adequate knowledge, 13.33% had moderate knowledge and nobody had inadequate knowledge regarding stress and anxiety reduction by outdoor games.

Table 1 and Figure 3 show that in pre-test, majority (66.7%) of the respondents had inadequate knowledge, 33.3% of them had moderate knowledge but none of them had adequate knowledge regarding stress and

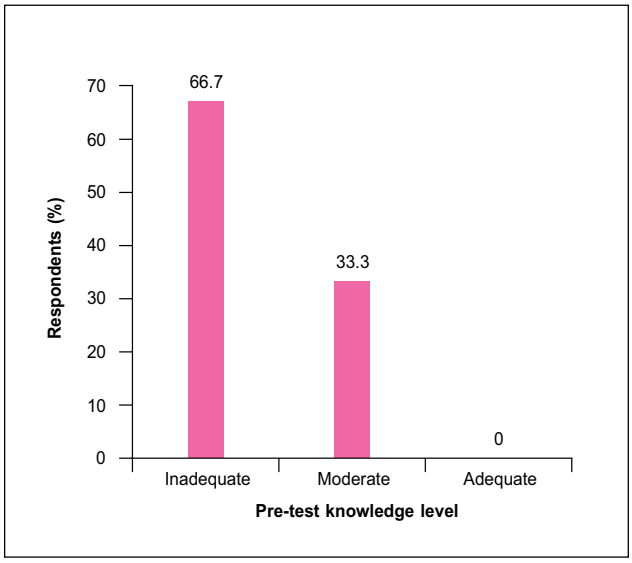


Figure 1. Classification of respondents on pre-test knowledge level of stress and anxiety reduction by outdoor games.

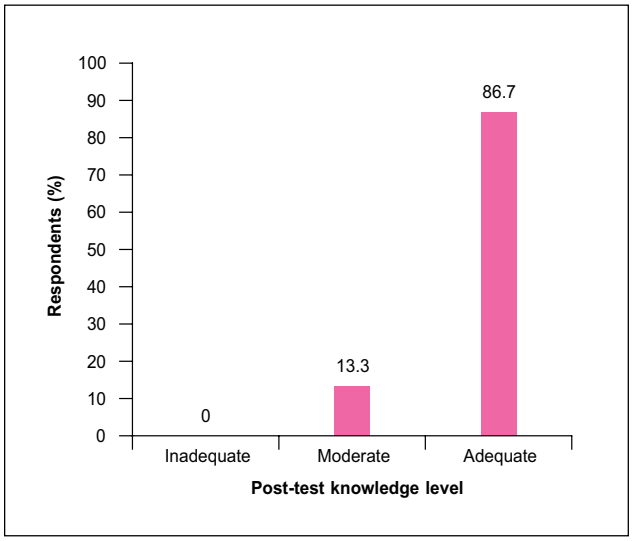


Figure 2. Classification of respondents on post-test knowledge of stress and anxiety reduction by outdoor games.

anxiety reduction by outdoor games. In the post-test, majority (86.7%) of the respondents had adequate knowledge, 13.3% had moderate knowledge and none of them had inadequate knowledge level regarding stress and anxiety reduction by outdoor games.

Table 2 and Figure 4 depict mean, mean%, standard deviation (SD), SD% of pre-test and post-test knowledge scores, enhancement in post-test knowledge score and paired 't' test value. The mean percentage of pre-test was 49.7% and post-test was 81.2% with the enhancement of 31.36%. The paired 't' test value was 27.51. The calculated 't' value is greater than table value (0.05, 59df) = 2.00. Hence, the null hypothesis (H_0) is rejected and research hypothesis (H_1) is accepted. This indicates that there is a significant difference between mean pre-test and post-test knowledge scores of respondents. It was concluded that the self-instructional module has been effective in increasing knowledge of adolescents regarding effect of outdoor games on stress and anxiety reduction. The Chi-square analysis was

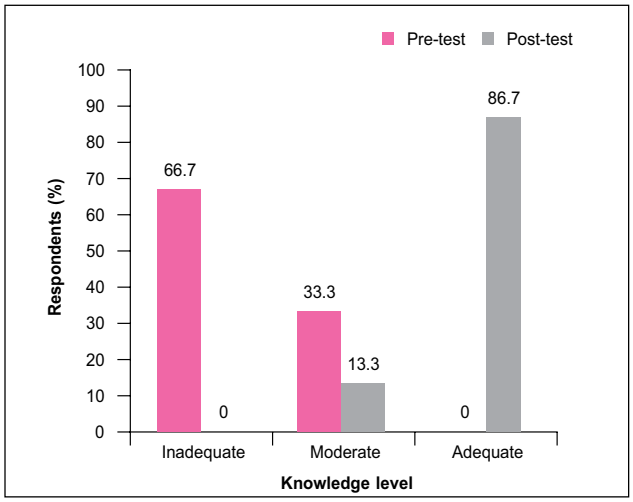


Figure 3. Classification of respondents on pre-test and post-test knowledge.

Table 1. Classification of Respondents on Pre-test and Post-test Knowledge Level of Stress and Anxiety Reduction by Outdoor Games (n = 60)

Knowledge level	Category	Classification of respondents			
		Pre-test		Post-test	
		Number	Percentage (%)	Number	Percentage (%)
Inadequate	≤50% score	40	66.7	0	0.0
Moderate	51-75% score	20	33.3	8	13.3
Adequate	>75% score	0	0.0	52	86.7
Total		**60**	**100.0**	**60**	**100.0**

Table 2. Overall Pre-test and Post-test Mean Knowledge Scores on Effect of Outdoor Games on Stress and Anxiety Reduction Among Adolescents

Aspects	Max. score	Respondents knowledge				Paired 't' test
		Mean	SD	Mean (%)	SD (%)	
Pre-test	30	14.9	1.75	49.7	5.83	27.51*
Post-test	30	24.30	1.9	81.2	6.33	
Enhancement	30	9.41	2.52	31.36	8.36	

*Significant at 5% level; t (0.05, 59df) = 2.009.

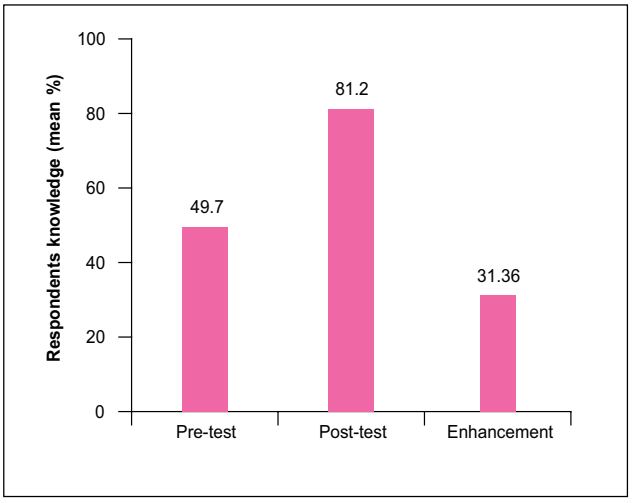


Figure 4. Overall pre-test and post-test knowledge level on stress and anxiety reduction by outdoor games.

carried out to determine the association of post-test knowledge regarding effect of outdoor games on stress and anxiety reduction among adolescents with their selected demographic variables such as age, gender, religion, type of family, family income, dietary pattern, residential area, type of recreation, source of stress and anxiety and source of information regarding effect of outdoor games on stress and anxiety reduction. Out of these, the knowledge was significantly associated with type of family (10.61, df = 3), residential area (6.65, df = 2) and source of information (9.16, df = 3) at 5% level ($p < 0.05$).

The results of Chi-square analysis indicated that there was significant association between pre-test knowledge with their selected demographic variables such as type of family, residential area and source of information regarding effect of outdoor games on stress and anxiety reduction among students. Hence, null hypotheses (H_{02}) was rejected and research hypotheses (H_2) was accepted. It indicates that there was a significant association between the pre-test knowledge regarding effect of outdoor games on stress and anxiety reduction among respondents with their selected demographic variables.

DISCUSSION

The present study assessed the knowledge level regarding the effect of outdoor games on stress and anxiety reduction among adolescents and found that majority (66.7%) of the subjects had inadequate knowledge in the pre-test and maximum (86.7%) number of subjects had adequate knowledge in the post-test and concluded that there was a significant improvement in subjects' knowledge in the post-test after administration of self-instructional module. Thus, the self-instructional module was found to be effective in improving the knowledge regarding effect of outdoor games on stress and anxiety reduction among adolescents.

Provision of self-instructional module will improve students' knowledge regarding stress and anxiety and steps to be followed to reduce stress and anxiety by outdoor games. The students had expressed that they were able to gain more knowledge regarding effect of outdoor games on stress and anxiety reduction and the teaching enabled them to reflect on their own performance and skills, and they had actively participated in the learning process. Significant perceived learning among students had taken place in all aspects of self-instructional module regarding effect of outdoor games on stress and anxiety reduction.

Hence, the developed self-instructional module was instructionally effective, appropriate and feasible and can be used to motivate and help the adolescents.

It emphasizes that adequate knowledge owned by the nurses might help them to update themselves on the recent advancements, which in turn helps them to give health education to the students on stress and anxiety reduction, to follow precautions in early identification and prevention of complications and also to improve abilities.

Student nurses should be made aware on various aspects of stress and anxiety complications, which arise

due to lack of care. The student nurses from school and college of nursing should be encouraged to attend specialized courses and seminars regarding stress and anxiety reduction.

Staff development program in any organization is the prime responsibility of the nurse administrator. In the era of technological advancement, the demand for quality and competent care poses a challenge to nurse administrators to demonstrate their efficiency in providing care to students with stress and anxiety complications and reduction at the earliest.

The nurse administrator should formulate policies, protocols, and guidelines and systems of emphasis on nursing research or clinical studies are needed to improve the quality of the nursing care.

CONCLUSION

The present study was done to evaluate the effectiveness of self-instructional module on knowledge regarding effect of outdoor games on stress and anxiety reduction among adolescents. There was a substantial increase in the level of knowledge among students after intervention of self-instructional module. Hence, the self-instructional module proved to be effective in increasing the knowledge and improving correct practices regarding effect of outdoor games on stress and anxiety reduction among adolescent students.

SUGGESTED READING

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