

ORIGINAL ARTICLE

A Study to assess the Effectiveness of Video Assisted Teaching on Knowledge Regarding Ergonomic Exercises and it's uses among Higher Secondary School Students at Selected Schools of Olpad Taluka, Surat, Gujarat

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ABSTRACT

Objective of this study to assess the knowledge regarding ergonomic exercises and its uses among higher secondary school students at selected schools of Olpad taluka, Surat, Gujarat. Research methodology: A quantitative research approach was adopted and 60 people of selected rural area of Olpad taluka by Non-Probability convenient sampling technique. Formal permission was obtained from the authority before data collection. A Self-Structured knowledge questionnaire was used to collect the data from the participants. A Self-Structured knowledge questionnaire was prepared to assess the knowledge of samples. Content validity of developed tools and structured teaching program was established by 5 experts and necessary modification were made As suggested by them. Reliability of the tool was ascertained by Karl Pearson's coefficient correlation (r) method. Result: The mean pre-test knowledge score was 9.50 and mean post-test knowledge score was 14.60. Significance of the difference between pre-test and post-test knowledge was statistically tested using paired 't' test and it was found significant at 0.05 level (t-19.61, t-2.00 respectively). There was significant increase in the knowledge

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of the samples after administration of the video assisted teaching on knowledge regarding ergonomic exercise and it's used among higher secondary school students at selected schools Olpad, taluka, Surat, Gujarat. Hence it is concluded that video assisted teaching was effective in improving the knowledge of higher secondary school students in Olpad, taluka, Surat, Gujarat.

KEYWORDS

• Video Assisted Teaching • Ergonomic Exercise and It's Uses • Higher Secondary School Students • Selected School

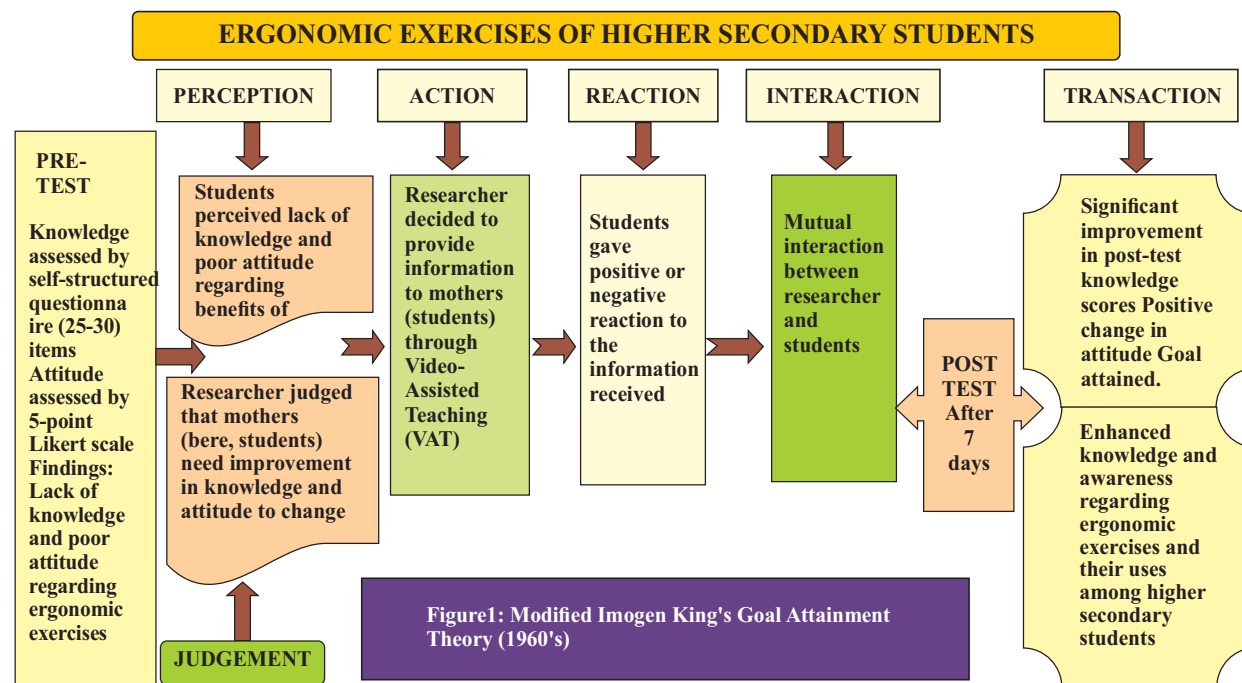
INTRODUCTION

In the present era of modernization and technological advancement, lifestyle patterns among students have undergone a significant transformation. The increasing use of digital devices such as smartphones, tablets, and computers Has led to a sedentary lifestyle, resulting in various postural and musculoskeletal problems among adolescents.

Prolonged sitting, poor posture, and inadequate physical activity have become common among higher secondary students, making them vulnerable to developing musculoskeletal discomfort, eye strain, and fatigue. To address these growing concerns, ergonomic practices and exercises play a crucial

role in maintaining physical well-being and promoting healthy study habits. Ergonomic exercise refers to a series of structured physical movements and stretches designed to promote correct posture, reduce physical strain, and enhance comfort during daily activities such as studying or using electronic gadgets.

These exercises help maintain the natural alignment of the body, prevent musculoskeletal disorders, and improve concentration and academic performance. In the school environment, where students often spend long hours sitting in classrooms or studying at home, awareness and practice of ergonomic exercises are essential for preventing long-term health complications.



OBJECTIVES OF THE STUDY

1. To assess the knowledge regarding ergonomic exercises and it's uses among higher secondary school students at selected schools of Olpad taluka, Surat, Gujarat.
2. To Assess the effectiveness of video Assisted teaching on knowledge regarding ergonomic exercises & it's uses among higher secondary school students at selected schools of Olpad taluka, Surat, Gujarat.

HYPOTHESIS

H0: There is no significant difference between mean pre-test & mean post-test knowledge score regarding ergonomic exercise and it's uses among higher secondary school students at 0.05 level.

H1: There is significant difference between mean pre-test and mean post-test knowledge score regarding ergonomic exercises and it's uses among higher secondary school students at 0.05 level.

METHODOLOGY

The methodology of a research study serves as the blueprint that guides the entire research process and ensures scientific rigor. This chapter describes the research approach, design, variables, setting, population, sample, sampling technique, development and description of the tool, data collection procedure, and plan for data analysis employed to assess the effectiveness of video-assisted teaching on knowledge regarding ergonomic exercises and their uses among higher secondary students.

The study was conducted in selected higher secondary schools of Olpad Taluka, Surat district, Gujarat, during the academic year. This chapter outlines the systematic steps undertaken to achieve the objectives of the study in a reliable and valid manner.

Research approach: Quantitative Research Approach

Research Design: Quasi Experimental one group Pre-test Post-test Design

Variable:

1. Research Variable Knowledge Regarding Ergonomic Exercise And it's uses.
2. Demographic Variable - age of student, standard of education, education of mother, family income, Residential area.

Research Setting:

- The setting is the physical location and conditions in which data collection takes place.
- This study was conducted at Mahadev Shastri Vidhyalay, Olpad Taluka, Surat, Gujarat.

Sampling technique: Non probability convenient sampling technique

Target Population: Higher Secondary School Students in Olpad Taluka, Surat, Gujarat

Criteria for Sample Selection:

- Higher secondary school students who are willing to participate.
- Higher secondary school Students who are available at the time of data collection.

Delimitation of the study:

1. The study is limited to 60 samples only.
2. The study is limited to selected schools of Olpad Taluka, Surat, Gujarat.

MAJOR FINDINGS OF THE STUDY

RESULT

The major findings of the study are presented according to the objectives of the study.

1. Findings related to demographic variables

- In the age Majority (38.33%) of the students were in the 16-18 year age.
- In the education of mother majority (36.67%) in the secondary and higher secondary.
- In the standard of education Class 11 majority students are 53.33% (32 students).
- The largest group (30.005%) had family income between 10,001 - 15000 per month.
- In the residential area Majority of the students (58.33%) came from urban areas.

2. Findings related to effectiveness of video assisted teaching on improving knowledge regarding ergonomic exercises and its uses among higher secondary school students in selected schools of Olpad taluka, Surat, Gujarat.

- In the post-test, out of 60 higher secondary school students in the experimental group:
- In the post-test 46 students (76.67%) had Adequate knowledge regarding ergonomic exercises and its uses among higher secondary school students in selected schools of Olpad taluka, Surat, Gujarat.

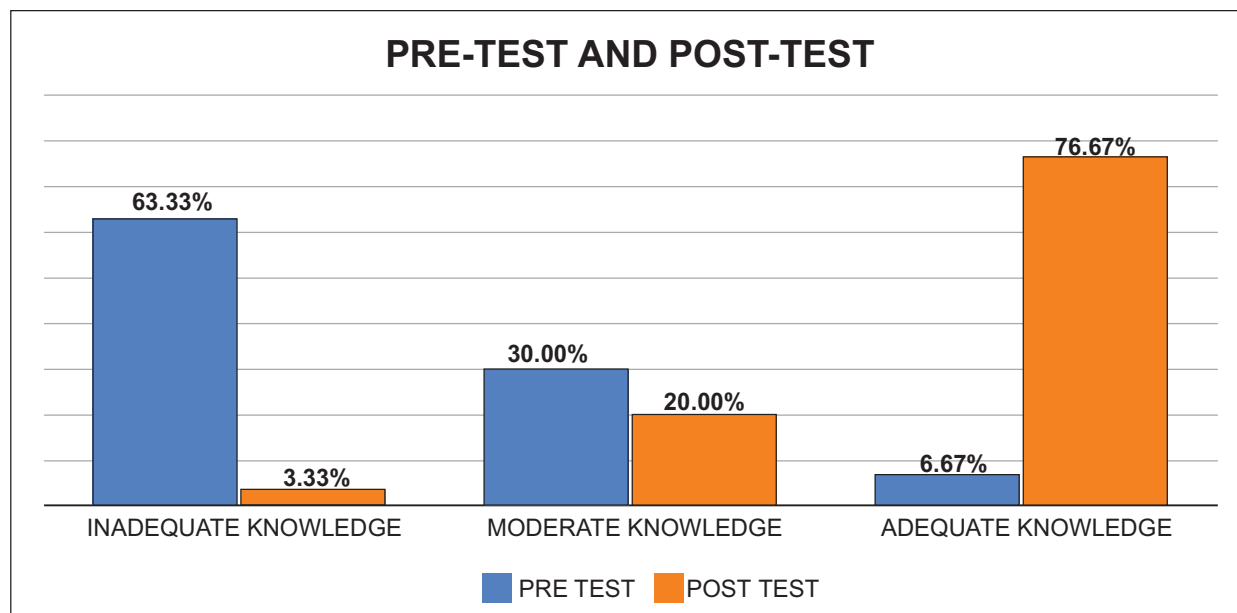


Figure 2: Bar graph showing distribution of pre-test and post-test score of video assisted teaching on ergonomic exercises and its uses among higher secondary students

The Table titled “Pre-test and Post-test” compares students’ knowledge levels before and after an intervention. In the pre-test, 63.33% (38 students) had Inadequate knowledge, 30% Moderate, and only 6.67% Adequate. After the intervention (post-test),

Adequate knowledge rose dramatically to 76.67% (46 students), Moderate knowledge dropped to 20%, and Inadequate knowledge fell sharply to 3.33% (2 students). This clearly demonstrates a significant improvement in students’ knowledge due to the intervention.

Table 1: Assess the frequency and percentage distribution of pre-test and post-test score

Level of Knowledge	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Inadequate Knowledge	38	63.33%	2	3.33%
Moderate Knowledge	18	30.00%	12	20.00%
Adequate Knowledge	4	6.67%	46	76.67%
Total	60	100%	60	100%

DISCUSSION

The purpose of the discussion is to interpret and describe the significance of the researcher’s findings in light of what was already known about the research problem being investigated and to explain any new understanding or insights that emerged as a result of the researcher’s study of the problem. The aim of the present study is to assess the effectiveness of video assisted teaching on knowledge regarding ergonomic exercises and its uses among higher secondary school students at selected schools of Olpad Taluka, Surat, Gujarat.²⁰ knowledge questionnaires were used to evaluate the knowledge of ergonomic exercises and its uses. The responses were

Analysed by using descriptive statistics (Mean, Median, Standard deviation, Frequency, Percentage) and inferential statistics (Paired t test, Chi square). Discussion on the findings was arranged on the basis of objectives of the study.

CONCLUSION

The findings of the present study concluded that the video assisted teaching was highly effective in improving the knowledge regarding ergonomic exercises and its uses among higher secondary school students. The calculated paired “t” value (19.61) was much higher than the table value (2.000) at 0.05 level of significance which clearly indicates significant

gain in knowledge score after administration of video assisted teaching. By translating these findings into practice, education, administration, and further research, nurses can play a pivotal role in preventing the rising epidemic of musculoskeletal disorders among the digital-generation youth, thereby contributing substantially to the nation's goal of healthy and productive adolescence.

RECOMMENDATIONS

On the basis of the findings of the study, it is recommended that:

1. A similar study can be replicated on a larger sample for wider generalization.
2. A comparative study can be conducted between rural and urban school students.
3. A study can be conducted to assess the practice of ergonomic exercises among students.
4. An experimental study can be conducted with a control group.

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