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Original Research Paper

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COMPUTER VISION SYNDROME AMONG ADOLESCENT GIRLS

Asha Priya Alex

Senior Lecturer, Department of Child Health Nursing. NIMS College of Nursing, Aralumoodu, Neyyattinkara, Trivandrum.Kerala,India.

ABSTRACT

Vision is the most precious sense of our body. Our eyes are in constant use every minute of the day. The way we use our eyes can determine how well we work throughout our lifetime. Over 8% of our learning is mediated through our eyes, indicating the important role our vision plays in our daily activities. The aim of the present study was to assess the effectiveness of computer-assisted instruction on knowledge regarding computer vision syndrome among adolescent girls in a selected college at Chennai. The objective of the study was to assess the existing level of knowledge on computer vision syndrome among adolescent girls to determine the effectiveness of computer-assisted instruction on knowledge of computer vision syndrome among adolescent girls. The conceptual frame work was developed based on the King's Goal Attainment Theory. A pre-experimental design with a quantitative approach was used. The present study was conducted in S.K.R Engineering College at Chennai, with the sample size of 100. A non – probability convenient sampling technique was used to select the samples. The conceptual frame work was developed based on the King's Goal Attainment Theory. The collected data were tabulated and analysed using descriptive and inferential statistics. The major findings of the study revealed that23% of the adolescent girls were having moderate knowledge and 75% were having adequate knowledge about computer vision syndrome.

KEYWORDS :

INTRODUCTION

Information and communication are two of the most important strategic issues for the success of every enterprise. Today nearly every organization uses a substantial number of computers and communication tools. Computers find a wide variety of applications in different spheres of life. With an increase in their widespread usage and their ever increasing popularity, computer education has become the need of the day. Adolescence is the transmission from childhood to adulthood. Most parents are concerned with the types of people or subject matter that their adolescents are encountering online and on television. Very few parents are worrying about the effects on their children's eyesight. India has one of the fastest growing youth populations in the world, with an estimated 190 million adolescents. (National Centre for Education Statistics, 2009).

Need for the study

Vision is our basic connection with the world. Eyes are used to interact with the environment in more than one million ways every second. The eye is an extension of the brain and is a direct link between our physical environment and our psychological mind. Over 80% of the learning comes from the vision and it said that most often one believes when one sees.

Computer have revolutionized the schools and colleges by streamlining the various process of all jobs, combining a large range of activities such as typing, reading, filing, and drawing into one process. It is estimated that 75% of adolescence in the year are involved in computer usage. Although, this greatly enhanced the efficiency of students and workers, it is eliminated that the natural "breaks" between activities kept students and workers fresh and focused. Due to such prevalent computer usage both at colleges and at home numerous medical studies have attempted to address health and safety concern for video display terminal users. (Larry, K.W.2010).

Jon, T. (2007) presented an articles on evidence of computer vision syndrome documented that more hours of using computer will leads to eye strain, neck and shoulder pain. According to the statistics of India (2010) around 65% of adolescents students were, both sex were affected with computer vision syndrome, about 50% of them were reported with the signs and symptoms of computer vision syndrome.

OBJECTIVES OF THE STUDY

- To assess the existing level of knowledge on computer vision syndrome among adolescent girls.
- To determine the effectiveness of computer-assisted instruction on knowledge of Computer vision syndrome among adolescent girls.
- To associate the selected demographic variables with post-test knowledge of computer vision syndrome among adolescent girls.

Hypothesis

H 1 - There is significant increase in the level of knowledge of adolescent girls on computer vision syndrome after the administration of computer-assisted instruction regarding computer vision syndrome.

H 2 - There is a significant association between the post-test knowledge of adolescent girls on computer vision syndrome with the selected demographic variables.

Conceptual framework

The conceptual framework of the present study is based on the "Kings' Goal Attainment Model" (1981).

Research approach

Quantitative research approach was used in this study

Research design

A pre–experimental research design (one group pre-test, post -test) was used in this study.

Setting of the study

The study was conducted in selected college (SKR Engineering College) at Chennai.

Population and sample

The study population were consisting of adolescent girls. The sample size was 100 adolescent girls in the age group of 17-19 years.

Inclusion Criteria

- Adolescent girls between the age group of 17-19 years.
- Adolescent girls who are available at the time of the data collection

Exclusion Criteria

- Adolescent girls who are not willing to participate in the

study.

Development of data collection:
The data collection tool was developed through extensive review of literature, discussion with the experts and from personal experience of the investigation.

Data collection tool contains:
Section A: Demographic data.
It consists of demographic data. It includes personal profile such as age, religion, area of living, type of family income, types of vision problem, and source of information.

Section B: Structured knowledge questionnaire.
It consists of a structured knowledge questionnaire on computer vision syndrome. It consist of 30 multiple choice questions related to definition, symptoms, causes, factors, position, management and prevention.

Data collection procedure
The data collection is the gathering of information needed to address a research problem. Data collection done for a period of six weeks from 04.01.2013 to15.02.13. The participants of the study were selected based on the inclusion criteria. The purpose of the study was explained and written consent was obtained from all the participants. The study was conducted in S K R Engineering College, Poonamallee, Chennai. The pre –test was conducted on the selected group. After that, the computer-assisted instruction on computer vision syndrome was given. The post –test was done after 7 days.

RESULTS AND DISCUSSION

Distribution of existing knowledge score on computer vision syndrome among adolescent girls.
Reveals that more number of participants were in the age group of 18 years that is82 (82%),majority of them were Hindu 71(71%), 86 (86%) of them were from urban,60 (60)% of them were using computer from 18-19 years, 53 (53%) of them using computer in college, 53 (53%) of them were using computer between 2-3 hours per day, 56(56%) of them not have no vision problem, and 38(38%) of the participants had received information regarding computer vision syndrome from their friends

Descriptive Statistics of Pre-test knowledge score on computer vision syndrome among adolescent girls.
Reveals that the overall mean score of the adolescent girls in the pre-test was 41.17 with a standard deviation of 9.76, showing an inadequacy in the knowledge on computer vision syndrome.

Descriptive Statistics of Post- test knowledge score on computer vision syndrome.
Reveals that the overall mean score of the adolescent girls in the post-test was 77.73 with a standard deviation of 8.59.This findings shows an improvement in the knowledge of the adolescent girls on computer vision syndrome.

3.4 Distribution of knowledge score on effectiveness of computer-assisted Instruction on computer vision syndrome among adolescent girls.
Interprets that the overall improvement knowledge and the mean score 35.97with a standard deviation of 12.99 which is significant at p & t is 0.001 level. Since the calculated value is greater than the table value. Hence, the research hypothesis h1 was accepted.

Sl. No	Knowledge Aspects	Effective Knowledge		Paired t test and P value
		Mean	SD	
1.	Definition	42.33	23.38	t = 18.106, P = 0.000 ***
2.	Causes	34.25	32.89	t = 10.415, P = 0.000 ***
3.	Factors	34	69.95	t = 4.861, P = 0.000 ***
4.	Symptoms	41	39.81	t = 10.299, P = 0.000 ***
5.	Position	19	69.18	t = 2.746, P = 0.007 **
6.	Management	36.67	32.65	t = 11.229, P = 0.000 ***
7.	Prevention	34.08	19.19	t = 17.752, P = 0.000 ***
	Overall knowledge	35.97	12.99	t = 27.696, P = 0.000 ***

Note: ** - P< 0.01, *** - P< 0.001, Level of significant

Association between the selected demographic variables with the post-test knowledge of adolescent girls regarding computer vision syndrome.
There is an association between the level of knowledge in post –test knowledge of the adolescent girls on computer vision syndrome with the type of vision problem at P <0.05 level of significance. Hence, the second hypothesis H 2 was accepted.

CONCLUSION

The study showed that the computer-assisted instruction was very effective in increasing the knowledge of adolescent girls on computer vision syndrome. There was a significant difference in pre-test and post- test knowledge score which were significant at P & t 0.001. The study also reveals that there was an association between the post–test knowledge of the adolescents on computer vision syndrome with the types of vision problem.

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