



## An Examination of the Effectiveness of Child-To-Child Role Play in Promoting Awareness of Eye Care in Early Adolescence

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### ABSTRACT

A quantitative quasi-experimental study of public high school students in Bareilly city's knowledge of role-playing in eye care. 50 students were selected by using stratified random sampling technique. The data was collected by structured knowledge questionnaire. The study revealed that most of the early adolescence have highest percentage of knowledge are in age group (56%) 14-15 years. Highest percentages are in sex (54%) male. Highest percentage are in religion (94%) Hindu. Highest percentages are in types of family (58%) Nuclear family. Highest percentages are in food habit (38%) Non-vegetarian. Highest percentage are in educational qualification of mother (44%) No formal education. Highest percentage are in presence of visual problem (80%) No. Highest percentage are in previous exposure of health education regarding eye care (70%) No. Highest percentage are in sources of knowledge (40%) Internet. In pre – test knowledge score was 02% (poor), 98% (average), 00% (good) and in the post – test knowledge score was 00% (poor), 62% (average), 38% (good), and the obtained t value = 11.46, which was significant at 0.05 level. There was significant association found between pretest level of knowledge and demographic variables among early adolescence student regarding eye care. The investigator concludes that knowledge regarding eye care is helpful to prevent future eye problems associated with eye care. It proves that early adolescence who had knowledge regarding eye care can prevent themselves from future problems and can provide better care and education to others. The investigator concluded that the planned questionnaire were helpful in assisting level of knowledge of early adolescence.

Keywords: Role -play, Public high school students, Eye care, Knowledge questionnaire.

### 1. Introduction

The human eye is the organ that gives us the ability to see, which allows us to see and comprehend the outside world more than we can with any other one of our four senses. We use our eyes for almost all of our activities, including reading, working, watching television, writing letters, driving a car, and many other ones. It's likely that the majority of people would agree that sight is the most important sense. The eye can distinguish between bright, subtle, and dim light, but it cannot distinguish between an item that is completely dark.<sup>1</sup> Eye health is a crucial aspect of overall wellness. It's crucial for children's growth as well as adult independence. For most people, having strong vision is essential to being able to participate in their employment, interests, and even the bulk of everyday duties. Any part of your visual system that isn't working properly or transmitting the proper signals may cause your eyesight to decline. We are able to appreciate the beauty of the world, partake in thrilling new experiences, and learn new skills thanks to our eyes. Understanding eye prevention measures and getting regular eye exams are the greatest ways to maintain your eyes' health and your vision. Artificial washing may be required to remove debris, prevent dryness, and guarantee that the eyelids are closed if the eye's normal cleansing process—tear production and blinking—is interfered with.<sup>2</sup>

Eye cleaning can be performed independently or in combination with other treatments such as swabbing the eyes, administering eye medication, and applying eye padding, dressings, or shields.

#### 1.1 Need of the study

**“An eye for eye only ends up making the whole world blind.”<sup>3</sup>**

The study's primary goal is to evaluate the value of role-play in helping students gain knowledge about eye care for their future. Early adolescence has some understanding of eye care, but an organised training programme can raise it. This study aims to demonstrate that early adolescence has a knowledge gap. The role-play has the potential to improve understanding of eye care. This study will also show how important role-playing is in enhancing our understanding of early adolescence.<sup>4</sup> Today, millions of kids regularly use computers. Long-term computer screen viewing can cause eyestrain symptoms as dry eyes, headache, weariness, and impaired vision. Poor lighting, glare, an unsuitable workstation setup, a visual issue that the individual was

previously unaware of, or a combination of these factors may be to blame for these symptoms. Many of these symptoms associated to computer use in adults can also occur in children. In this study, the most prevalent eye symptoms associated with juvenile computer usage, the potential causes, and techniques to avoid them are addressed. However, some particular aspects of how children use computers may make them more vulnerable than adults to the development of these problems.<sup>5</sup>

### 1.2 Objective of the study

- To assess the effectiveness of child to child approach regarding eye care at Smt. Shanti Devi High School Bareilly U.P.
- To find the association between post test knowledge scores of early adolescence with their selected demographic variables.

### 1.3 Hypothesis

**H<sub>1</sub>:** There will be a significant increase to the mean post-test knowledge scores of early adolescence studying in a selected school of Bareilly regarding knowledge of eye care.

**H<sub>2</sub>:** There will be a significant association between the post test knowledge scores of children with their selected demographic variables.

## 2. Methodology

The research design used in this study is quasi experimental with one group pretest posttest design. The study was conducted at Smt. Shanti Devi High School of Bareilly, U.P.” 50 early adolescence were Selected through stratified random sampling technique. The data was collected by using structured questionnaire to assess the knowledge of early adolescence. The effectiveness of role play in term of change of knowledge score of early adolescence it exposed role play on knowledge regarding eye care among early adolescence.

## 3. Results and findings

The analysis and interpretation of the observation are given in the following section.

### 3.1 SECTION A: Description of demographic variables of study participants.

**Table 1- Frequency and percentage distribution of demographic variables of study participants.**

N=50

Demographic variables	Frequency	Percentage
<b>Age (in years)</b>		
a) 12-13 years	22	44%
b) 14-15 years	28	56%
<b>Sex</b>		
a) Male	27	54%
b) Female	23	46%
<b>Religion</b>		
a) Hindu	47	94%
b) Muslim	02	4%
c) Christian	00	0%
d) others	0	0%
<b>Types of family</b>		
a) Nuclear family	29	58%
b) Joint family	21	42%
c) Extended family	00	0%
d) Broken family	00	0%

The data presented in table no. 1 shows frequency and percentage distribution of demographic variables of study participants & it depicts that most of the early adolescence (56%) were 14-15 years of age. Majority (54%) were in male. Majority of (94%) were in Hindu. Majority of (58%) were in nuclear family.

3.2 SECTION B: Analysis based on objectives

Table 2- Pre-test and post-test distribution of subjects according to their knowledge on eye care.

Level of knowledge	Pre-test knowledge score			Post-test knowledge score	
	Sore	Frequency	%	Frequency	%
POOR	Below 10	01	2%	00	0%
AVERAGE	11—20	49	98%	31	62%
GOOD	Above 20	00	00%	19	38%

Maximum score =36

The data presented in table no. 2 reveals that in pre – test knowledge score was 02% (poor), 98% (average), 00% (good) and in the post – test knowledge score was 00% (poor), 62% (average), 38% (good).

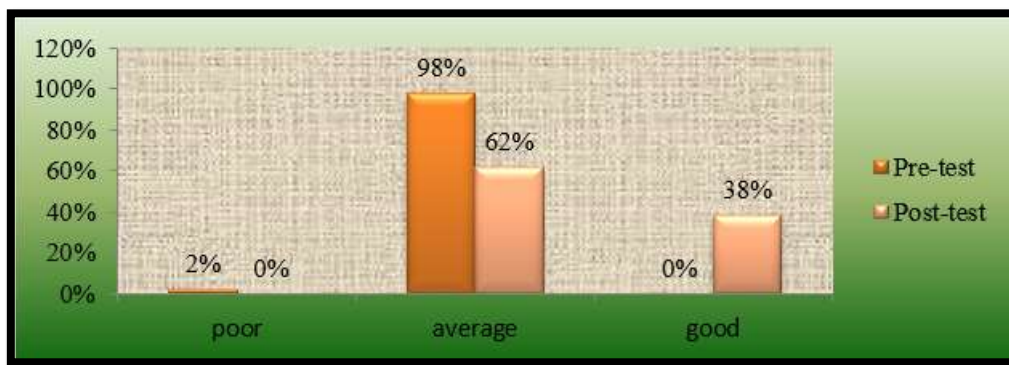


Fig. 1- Percentage distribution of level of knowledge regarding eye care among early adolescence.

**Objective 1 :** To assess the effectiveness of child to child approach regarding eye care among early adolescence at Smt. Shanti Devi High School Bareilly U.P.

**H<sub>1</sub>:** There will be a significant increase to the mean post-test knowledge scores of early adolescence studying in a selected school of Bareilly regarding knowledge of eye care.

Table 3- Comparison of pre test and post test knowledge score regarding eye care among early adolescence

Knowledge aspects	Mean	Mean %	SD	Enhancement	t value	df	Inference
Pre – test	14.8	29.6%	2.97				
Post – test	19.96	39.92%	4.37	10.32%	11.46	49	

Maximum score =36

The data presented in table no. 3 depicts the comparison of pre-test and post test knowledge score regarding eye care among early adolescence. The obtained pretest and posttest mean and standard deviation was  $14.8 \pm 2.97$  and  $19.96 \pm 4.37$  respectively.

Dependent t-test was performed to compare the pretest and posttest knowledge regarding eye care among early adolescence and the obtained t value was  $t=11.46$ .

The paired ‘t’ value obtained for all the knowledge aspects were found to be significant at  $p<0.05$ . hence the null hypothesis was rejected and the research hypothesis was accepted. Thus it can be interpreted that role play was effective in improving knowledge of early adolescence regarding eye care.

**Objective 2:** To find the association between post test knowledge scores of early adolescence with their selected demographic variables.

**H<sub>2</sub>:** There will be a significant association between the post test knowledge scores of children with their selected demographic variables.

**Table 4- Association between pre test level of knowledge and demographic variables among early adolescence regarding eye care**

Demographic variable	Poor		Average		Good		d f	Calculated value	Table value
	F	%	F	%	F	%			
<b>Age (in years):-</b>									
a) 12 – 13 years	00	00%	11	22%	11	22%	1	2.37	3.84
b) 14 – 15 years	00	00%	20	40%	08	14%			
<b>Sex :-</b>									
a) Male	00	00%	18	36%	09	18%	1	0.53	3.84
b) Female	00	00%	13	26%	10	20%			
<b>Religion :-</b>									
a) Hindu	00	00%	29	58%	18	36%			
b) Muslim	00	00%	02	04%	00	00%	3	2.40	7.82
c) Christian	00	00%	00	00%	00	00%			
d) Others	00	00%	00	00%	01	02%			
<b>Types of family:-</b>									
a) Nuclear family	00	00%	17	34%	12	24%			
b) Joint family	00	00%	14	28%	07	14%	3	2.40	7.82
c) Extended family	00	00%	00	00%	00	00%			
Broken family	00	00%	00	00%	00	00%			

The data presented in table no. 4 depicts the description of association between pre-test level of knowledge and demographic variables among early adolescence regarding eye care. The obtained chi square value for age is 2.37 less than the table value, which indicate that there is significant association between level of knowledge of eye care with selected demographic variables. Hence, the researchable hypothesis is accepted. The obtained chi square value for gender 0.53 less then the table value which indicate that there is significant association between level of knowledge of eye care with selected demographic variables, Hence the researchable hypothesis is accepted. The obtained chi square value for religion is 2.40 less than the table value which indicate that there is significant association between level of knowledge of eye care with selected demographic variables, Hence the researchable hypothesis is accepted. The obtained chi square value for types of family is 2.40 less than the table value which indicates that there is significant association between level of knowledge of eye care with selected demographic variables, Hence the researchable hypothesis is accepted.

#### 4. Discussion

This section relates to the findings of the study to the findings of the previous studies.

Analysis Comparison of pre and post test knowledge score regarding eye care among early adolescence.

The obtained mean and standard deviation for the pretest and posttest were 14.8, 2.97 and 19.96, 4.37, respectively. Early adolescent subjects' knowledge of eye care was compared between pretest and posttest using a dependent t-test, and the resulting t value was 11.46. All knowledge aspects' paired 't' values were determined to be significant at  $p < 0.05$ .

This finding was supported by Anitha P. (2020)<sup>6</sup> on determine the effectiveness of child to child approach through role play regarding prevention of accidents among children. This was statically Significant level  $< 0.001$ .

#### 5. Conclusion

According to the study's findings, the majority of early adolescents had average knowledge while just a small percentage had high levels of understanding on eye care. The "t" test, which was used to compare the pre-test and post-test knowledge scores, showed a real increase in knowledge. Role play was therefore shown to be a successful strategy for enhancing early adolescent understanding of eye care.

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