

## A STUDY TO ASESSE THE EFFECTIVENESS OF SNAKE AND LADDER GAME ON KNOWLEDGE REGARDING HEALTHY HABITS AMONG SCHOOL AGE CHILDREN IN SELECTED SCHOOLS OF PATAN DISTRICT

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### ABSTRACT

*INTRODUCTION: The importance of health education during childhood cannot be overstated. School-aged children are at a critical stage of cognitive and emotional development, making this period an ideal time to impart knowledge about healthy habits. However, despite efforts from various educational programs, many children still lack adequate awareness and understanding of the significance of healthy habits. This game involves players advancing along a board by rolling dice and moving their pieces, with "snakes" causing setbacks and "ladders" offering advances. OBJECTIVES: To evaluate the effectiveness of snake and ladder game on knowledge regarding healthy habits among school age children DESIGN: A quantitative approach using pre-experimental pre-test post-test design with one group. SETTINGS: Selected schools of Patan District PARTICIPANTS: 100 school age children fulfilling inclusive criteria METHODS: 100 school age children were selected using non-probability convenience sampling techniques in selected schools of Patan district. TOOLS: Self-structured Questionnaire was used to assess the level of knowledge regarding healthy habits among school age children. RESULTS: The results of the study showed that the mean post-test knowledge score 22.20 was higher than the mean pre-test knowledge score 16.48. The calculated value 8.46 was greater than the table value  $t=2.02$  at 0.05 level of significance. It was also found that, there was no association between pre-test levels of knowledge and selected demographic variables. This was proved that snake and ladder games were an effective planned teaching method for improving knowledge of school age children regarding healthy habits. CONCLUSION: school age children had poor or average knowledge. Snake and Ladder games were effective in improving their knowledge CLINICAL IMPLICATION: the game can be given to all the children to improve their knowledge regarding healthy habits.*

**Keywords:** Assess, Effectiveness, Snake and ladder game, Knowledge, Healthy habits, School age children

## INTRODUCTION

The importance of health education during childhood cannot be overstated. School-aged children are at a critical stage of cognitive and emotional development, making this period an ideal time to impart knowledge about healthy habits. However, despite efforts from various educational programs, many children still lack adequate awareness and understanding of the significance of healthy habits such as proper hygiene, physical activity, balanced nutrition, and mental well-being.

The Snake and Ladder game, traditionally a recreational activity, can be adapted to convey educational content. This game involves players advancing along a board by rolling dice and moving their pieces, with "snakes" causing setbacks and "ladders" offering advances. By incorporating health-related questions and tasks into the game's mechanics, this version of the game has the potential to educate children on healthy practices in an enjoyable and interactive manner.

Health education is an essential component of a child's overall development, shaping not only their understanding of health and well-being but also their capacity to make informed choices throughout their lives. School-aged children, in particular, are at a critical stage where they begin to develop habits and behaviors that can persist into adulthood. This is the period where preventive health measures can have the most significant impact. A foundation built on healthy habits during these years can foster long-term physical, mental, and social well-being. However, in many parts of the world, including in Nepal, children continue to face challenges related to their health behaviors, such as poor nutrition, lack of physical activity, and inadequate hygiene practices. 3

Children are often influenced by their environment, including family, school, and community, and these external factors can greatly impact their health. In recent decades, there has been a growing concern regarding the health issues faced by school-aged children, particularly in relation to lifestyle diseases such as obesity, diabetes, and hypertension. These diseases, which were once considered to be problems for adults, are increasingly affecting children. According to a 2016 report by the World Health Organization (WHO), childhood obesity has tripled in many regions, including South Asia, over the past three decades.

## OBJECTIVES

- To assess the knowledge regarding healthy habits among school age children in selected schools
- To evaluate the effectiveness of snake and ladder game on knowledge regarding healthy habits among school age children
- To find out the association between knowledge regarding healthy habits among school age children with the selected demographic variables.

## HYPOTHESIS

- H1: There will be no significant difference between the pre-test and post-test knowledge regarding healthy habits among school age children.
- H2: There will be significant difference between the pre-test and post-test knowledge regarding healthy habits among school age children

## RESEARCH METHODOLOGY

### RESEARCH DESIGN

a pre-experimental one group pre-test post-test design was adopted

### SETTING OF THE STUDY

The study was conducted in selected schools of Patan District, Gujarat.

### SAMPLE AND SAMPLING TECHNIQUE

In this study, the sample included school age children in selected schools of Patan district . The sample size was determined based on feasibility and statistical power (e.g.,  $n = 100$ ). The sampling technique was Convenient sampling technique, participants were selected based on inclusion criteria and were available during the study period.

### DEVELOPMENT AND DESCRIPTION OF THE TOOL

A structured knowledge questionnaire was developed to assess the knowledge of the caregivers regarding healthy habits .

The tool included the following sections: Section A: Demographic variables (age of the school age children , gender, education of mother , education of father, area of residence , monthly income etc. ).

Section B: Knowledge questionnaire regarding healthy habits (30 multiple-choice questions).

The Snake and Ladder game was personally designed and printed on a 4\*4 sheet .The students were made to play the game in a group of 2 that is 4 students at a time.

### INTERVENTION

The Snake and Ladder game

### DATA ANALYSIS

Data were analyzed using Descriptive statistics: Mean, standard deviation, frequency, and percentage to describe demographic variables and knowledge scores. Inferential statistics: Paired t-test was used to

compare pre-test and post-test scores to assess the effectiveness of the intervention. Chi-square test was used to determine the association between demographic variables and knowledge scores.

## RESULT

- The pre-test mean score on Knowledge is  $16.48 \pm 6.22$  and post-test mean score is  $22.20 \pm 3.93$  respectively. The 't' value is 8.46 which is greater than the table value 2.000. Hence the research hypothesis H1 is accepted at  $p \leq 0.05$  levels. Thus, it becomes evident that snake and ladder game is effective in improving knowledge regarding healthy habits among school age children .
- Based on the third objectives used to Chi-square test use to associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is a significance association between the knowledge and demographic variables such as age, education, education of father, education of mother

## DISCUSSION

This study was conducted to assess the effectiveness of a Snake and Ladder game on knowledge regarding healthy habits among school-age children in the selected schools of Patan district. The aim of the study was to determine how effective a game-based teaching strategy is in improving children's knowledge and understanding of healthy habits. School-age children are at a crucial developmental stage where lifestyle behaviors such as personal hygiene, balanced nutrition, physical activity, and cleanliness are formed, yet many children lack adequate awareness and motivation to practice healthy habits in their daily lives. By implementing a structured Snake and Ladder game as an educational intervention, this study sought to promote learning through play, enhance children's interest and participation, and improve their retention of health-related information. The use of this interactive and child-friendly approach helps children understand the importance of healthy habits in an enjoyable manner, encourages positive behavior change, and supports the development of lifelong healthy practices.

The study was conducted by using pre experimental one group pre-test post-test research design. The tool used for the study is self structured questionnaire to assess the knowledge of the school age children regarding healthy habits. The responses were analyzed through descriptive statistics (Mean, Frequency, Percentage distribution, Standard deviation) and inferential statistics ('t' test and Chi-square).

## CONCLUSION

The Snake and Ladder game significantly improved knowledge among school age children . Despite children's different backgrounds levels, the intervention was effective across the board. Relationship to patient and residence area impacted knowledge levels, indicating the need for targeted educational

interventions. Snake and ladder game is a powerful, low-cost, scalable tool for improving literacy regarding healthy habits among school age children.

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