



# **A PRE-EXPERIMENTAL STUDY TO ASSESS THE EFFECTIVENESS OF KNOWLEDGE OF PRIMARY SCHOOL TEACHERS REGARDING EARLY DETECTION AND PREVENTION OF COMMON HEALTH PROBLEMS AMONG SCHOOL CHILDREN IN SELECTED SCHOOLS AT REWA (MP).**

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## **ABSTRACT**

Children's health is integral to societal progress, reflecting the future of any nation. This study aims to assess and enhance the knowledge of primary school teachers regarding early detection and prevention of common health problems among school children in Rewa. Grounded in Maya Angelou's assertion on the enduring potential of children, and recognizing World Health Day 1984's focus on children's well-being, this research emphasizes the significance of prioritizing child health. Despite global efforts and governmental policies, challenges persist, especially in developing nations, where factors like malnutrition and inadequate healthcare prevail. The study proposes a comprehensive school health program integrating health services into schools to ensure holistic well-being. The objectives include assessing pretest knowledge, evaluating the effectiveness of a planned teaching program, and examining associations between knowledge levels and socio-demographic variables. Through a pre-experimental design, employing a one-group pretest-posttest approach, the study targets primary school teachers in Rewa, utilizing quantitative research methods. The findings aim to contribute to the improvement of school health services and ultimately enhance the health and well-being of children, who are vital agents in propagating health practices within their communities.

**KEYWORDS:** Children's health, Primary school teachers, School health education, Early detection, Prevention, Common health problems

## **INTRODUCTION**

Children's health is crucial for national progress, as they represent the future of society. Maya Angelou's quote, "A child is a talent to endure stem from the ignorance of alternatives," underscores the importance of prioritizing children's well-being. World Health Day 1984 emphasized the need to safeguard children's mental and physical health. Despite being cherished, many children face illness or premature death, especially in developing countries where factors like malnutrition and inadequate healthcare persist. Recognizing this, governments, including India, have implemented policies focusing on child health, integrating health services into schools. However, challenges remain, and efforts to enhance school health services are ongoing. A comprehensive school health program is essential, encompassing health appraisal, education, and access to care, to ensure the holistic well-being of children, who are pivotal in propagating health practices within families and communities.

## **NEED FOR THE STUDY**

School children constitute a vital and substantial segment of population. School children are vulnerable section of population by virtue of their physical, mental, emotional and social growth and development during this period. School children are expressed to various stressful situations .

Children coming to school belong to different socio economic and cultural background which affect their health and nutritional status and require and help guidance in promoting, protecting and maintaining their health and nutritional status. Children school in age are prone to get specific health problem. It is based on health needs of school children. It is planned in co-ordination with school health personal, parents and community people. It emphasize on promotive and preventive, aspects.

Studies conducted by many among children revealed the morbidity pattern. Reported that 40 percent the morbidity was caused by deficiency of iron and vitamin and skin disease



## OBJECTIVES

- To assess the pretest knowledge of primary school teachers regarding early detection and prevention of common school health problems among school children at Rewa.
- To assess the posttest level of knowledge of primary school teacher regarding early detection and prevention of common health problem among school children at Rewa .
- To evaluate the effectiveness of the planned teaching program on level of knowledge of primary school teacher regarding early detection and prevention of common health problem among school children
- To associate the pretest and posttest level of knowledge of regarding common health problem in school children.

## HYPOTHESIS

All hypothesis will be tested

H0: There will be no significant relationship between knowledge level of the primary school teacher regarding early detection and prevention of common health problem among school children with selected socio demographic variables.

H1: There will be a significant relationship between knowledge levels of The primary school teacher regarding early detection and prevention of common health problem among school children with selected socio Demographic variables

H2: There will be a significant difference between pretest and post-test Knowledge of the primary school teacher regarding early detection and prevention of common health problem among school children.

## ASSUMPTIONS

- School teachers are the most important link in the school health team in providing care to the children.
- Primary school teacher may have some knowledge regarding early detection and prevention of common health problem in school children.
- Teaching program with pictorial booklet consist of information regarding detection and prevention of common health problem in school children.

## DELIMITATIONS

- The study was delimited to selected health problems
- The study was delimited to selected primary school teachers in Rewa
- Primary school teacher who are willing to participate
- Primary school teacher who are able to read and understand English and Hindi

Review of the literature is a written summary of the state of existing knowledge on a research problem. A review of literature involves systematic identification, location, scrutinization and summary of written material that contain information on research problem.<sup>12</sup>

The review of literature related to present study was organized under the following headings:

- Studies related to knowledge on Anemia
- Studies related to knowledge on Worm Infestation.
- Studies related to knowledge on Scabies
- Studies related to knowledge on Conjunctivitis.
- Studies related to knowledge on Common Cold.
- Studies related to knowledge on School Health Services

## RESEARCH METHODOLOGY

Methodology is the most important part of any research study, which allows the researcher to form drawing for the study undertaken. Research methodology refers to the controlled sounding related to the way of obtaining, organizing and analyzing data. Methodological studies address the expansion, validation and evaluation of research instruments and techniques.

Research methodology is a way to solve the research problem in systematically. It includes steps, procedures and strategies for gathering and analysing the data in a research investigation.

The present study was aimed at assessing the knowledge of the primary school teachers regarding school health problem in selected school at Rewa. The chapter deals in detail with the methodology adopted for the study. It also describes the research approach, research design, setting of the study, population, sampling technique, sample size, criteria for selection of sample, development of the tool, description of the tool, ethical consideration of the study, content validity, pilot study, reliability of the tool, procedure for data collection and plan for data analysis.



### Research Approach

Research approach is the most significant part of any research. The appropriate choice of the research approach depends upon the purpose of the research study which was under taken.

Evaluative research is an practical form of research that involves verdict out how well a program, practice, procedure or policy is working. In view of the nature of the problem and to achieve objective of the present study, an experimental evaluative approach was considered to the most operative.

(A/c to Polit & Hungler 1995)

In view of the objective of the study the researcher has used quantitative research approach is considered to a suitable.

The researcher has used one group pretest-post-test study, as it provides a comparison between a group of subject before and after the treatment.

In this study the investigator aimed at finding the effectiveness of planned teaching program.

### Research Design

The research design is the plan for how the study will be conducted. It is concerned with type of data to be collected and the means used to obtain these data.

Research design is the arrangement can be defined as a blue print to conduct a research study, Which involves the description of research approach, study setting, Sampling size, sampling technique, tools and method of data collection and analysis ton answer research question or for resting research hypothesis.

The research design adopted for the study is pre-experimental: One group pre-test-Post-test research design.

### Target Population

“The target population is defined as the entire aggregation of cases that meets designated set of criteria”.

Target population in this study will refers to all primary school teachers.

### Accessible Population

“A sample is a portion of the population that has been selected to present the population of interest”.

(Talbot)

Primary school teachers in selected school in Rewa city.

The population for the study was primary school teachers available in time of study

### Sample and Sampling Technique

“Sample the process selecting a portion of the population to present the entire population”.

Sampling technique is the act or process of selecting a suitable sample or a representative part of a population for the purpose of determining parameters or characteristics of the whole population.

(Jaypee)

A sample consist a sub set of the unites that compose the population”. The purposive sampling technique was used to select the accessible population from the target population. The sample size for the study was 60primary school teachers. To select the study sample purposive sampling technique was used.

A sample is “a subset of the population selected to represent the population. Teachers who were working in the selected government and private schools were considered as sample”.

### Criteria for selecting the sample

For the selection of sample, the researcher set the following criteria.

**Inclusion criteria:** The study included the teachers who were:

- Working in selected schools.
- Available at time of data collection
- Willing to participate in the study
- Able to understand languages like English and Hindi

**Exclusion criteria: The study excludes who were not**

- Working in selected schools
- Available at the time of data collection
- Willing to participate in the study



- Able to understand Languages English, and Hindi

### Sample size

Based on the selection criteria, total 60 primary school teachers from Four selected schools were considered as the sample size

### Limitations

- The present study was limited to 60 teachers who were working in select Government and Private schools.
- The Study was limited to Selected Health Problems like Anemia, Worm Infestations, Scabies, Conjunctivitis and Common Cold.
- Willing to participate in the study.
- Available at the time of data collection

### Method of Data Collection

The Research design use for the study was pre-Experimental research design. The study was conducted among primary school teachers in selected school of Rewa city. A sample size of 60 primary school teachers was selected through purposive sampling technique. 60 primary school teachers were selected to participate in the study.

For present study the data was collected using structured questionnaire.

The tool for the present study was developed by the investigator based on the objectives, review of the related literature and suggestion of experts in the field of child health Nursing.

### Description of the tool

The tool consists of two parts

#### Section A:

The tool consists of demographic data of school teachers viz Age, Sex, Religion, Educational Qualification, Teaching experience and Health programmes conducted in schools related to health problems.

#### Section B

It consists of items on knowledge related physical health problems of school children like Worm Infestation, Scabies, Conjunctivitis and Common cold.

#### Ethical Consideration

Ethical clearance was obtained from the institutional ethical committee. Permission was obtained from authorities of selected schools and consent was obtained from the participants.

#### Content Validity

The ability of an instrument to measure the variables that it is intended to measure.

The prepared tool was validated by 05 experts in the field of child health nursing, community Health Nursing.

The tool was modified according to the suggestion of experts.

### Pilot Study

A small-scale version, Or trial run, Done in preparation for a major study.

In order to test the relevance and practicability of the study, a pilot study was conducted on 11/09/2019 to 13/09/2019 study was conducted P.M.P school Rewa. Pilot study was conducted by selecting primary school teacher who were present in this time. Purposive sampling was technique was used to select the primary school teacher, followed by demographic data.

The purpose of the pilot study is to assess the feasibility of the study and plan for statistical analysis.

In order to find out the feasibility and reliability of the tool it was tried out on 7 teachers from government primary school, and 3 teachers from Private school. The tool was found to be peaceful and applicable after the pilot study.

### Method Of Data Collection

The investigator obtained prior permission from the authorities of selected government and private schools for the data collection. Consent was obtained from the participants. Data were collected from 03-09-2019 to 05-09-2019 the time schedule was planned from 9am to 2pm. Totally 60 teachers were selected from government and private schools. The investigator interviewed the sample by using structured questionnaire schedule.

### Plan for Data Analysis

The data obtained were analyzed on the objectives and hypothesis by using both descriptive and inferential statistics.



**Descriptive Statistics.**

- Sample characteristics were described through frequency and percentage distribution.
- Knowledge of school teacher was analyzed in terms of mean and standard deviation

**Inferential Statistics**

- Chi-square test was used to identify the relationship between the selected socio-demographic variables primary school and their knowledge regarding common Health Problem among school children.

**RESULTS**

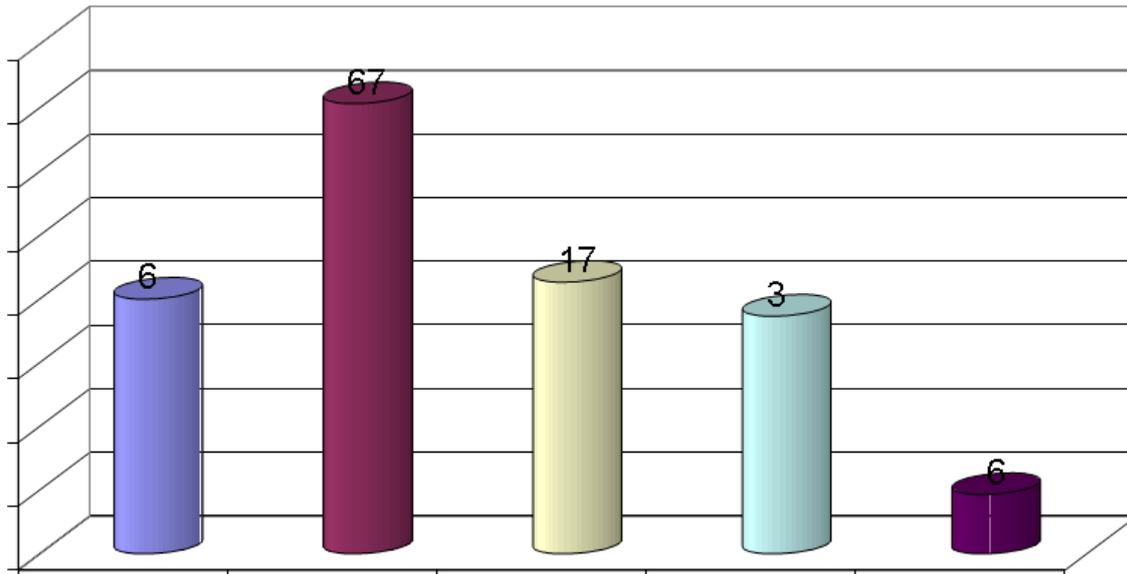
**ANALYSIS AND INTERPRETATION**

Data analysis is essential for a scientific study and for ensuring that all relevant data are used for making contemplated compare and analysis, the turn analysis refers to commutation of certain measures along with searching of pattern of relationship that exist between data groups .4

Section A: Sample characteristics.

Age	Frequency	Percentage
21-25 years	10	17
26-30 years	36	60
31-35 years	11	18
36 years and Above	3	5

Table 1 narrates the percentage distribution of primary school teachers by their age, more than one third of the primary school teachers were between the age group of 31-40 years (37%), followed by more than one fourth of primary teachers between in the age group of 21-30 years (26%), less than one fourth of primary teachers between the age group of 41-50 years (23%) and one sixth of primary school teachers between the age of 51 years and above (14%).



Percentage distribution of school teachers by their educational qualification

Section B: Knowledge of primary school teachers regarding selected health problems.

Section C: Association between the knowledge regarding selected health problems with selected socio-demographic variables.

**Research Variable's**

A Variable is defined as anything that has a Quantity or Quality that Varies.

The dependent variable is the variable a Researcher is interested in. An independent variable is a variable believe to affect the dependent variable.

Confounding variable's are defined as interference caused by another variable.

Two types of variable were defined in the study.



They are as follows :-

**1) Independent Variable :-**

An independent variable is the variable that is varied or manipulated by the researcher. It is the presumed cause that 'logically' has some effect on a dependent variable.

The independent variable in this study was planned teaching program on prevention of neonatal hypothermia.

**2) Dependent Variable :-**

A dependent variable is the presumed effect or response that is measured or observed as a result of the variation in the independent variable.

The dependent variable in this study was level of knowledge of post natal mothers regarding prevention of neonatal hypothermia  
Reliability of the tool

Consistency and dependability of research instrument to measure a variable.

Test-retest method was used in order to assess the reliability of the tool by conducting the structured questionnaire to the same sample of 10teachers.

The coefficient of correlation was computed by karl-Spearson’s coefficient correlation method. The ‘r’ value was found to be 0.97, which shows highly positive correlation. It indicated that the tool was highly reliable.

Deals with the analysis of the level of pre -test knowledge of primary school teacher regarding early detection and prevention of common health problems among school children.

Based on the knowledge score the primary school teachers were in the low knowledge 0-24 (50%) followed by average knowledge 25-36(51-75%), and above 37-48 (75%).

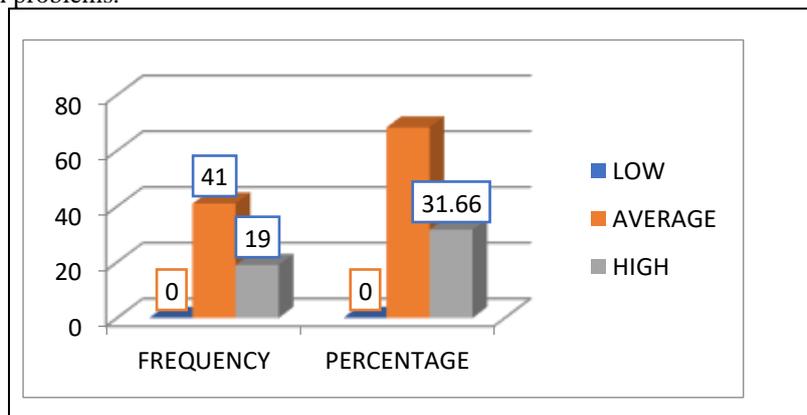
**Percentage distribution of sample according the level of pretest knowledge among school children regarding early detection and prevention of common health problems.(pre-test).**

N = 60

Knowledge Score	Frequency	Percentage
Low	36	60
Average	17	28.33
High	7	11.66
Total	60	100

(Meanscore21.5 S.D=9.62)

Table 2 describes the knowledge regarding health problems among the sample more than half of the sample had poor knowledge (60%) and more than on third of sample had average knowledge (28.33%) and only 11.66 percentage sample had high knowledge. The mean knowledge score was 21.5 with standard deviation 9.62. Primary school teachers were having poor knowledge regarding school health problems in school children. So that there need to teach and to participate in school health programme and in motivation in school health problems.



The data given in table no 2 and figure no 8: shows that out of 60 subject in the sample size majority 41(68.33%) were having average knowledge, 19 (31.66%) were having high knowledge and none were having low knowledge.



The sample characteristics selected for association with primary school teacher's knowledge about health problems measures were Age, Sex, Religion, Educational Qualification, Teaching Experience and School Health Programme conducted to related to school health problems in school children.

#### **Association between the knowledge of primary school teachers regarding health problems measures with their age.**

**N=60**

$X^2$  Value = 8.55 df=3  $P < 0.05$  (Table value 7.815)

The association between the knowledge primary school teachers with their age in the total sample 39 teachers well falling between 21-30 Years of age, among them 23 teachers had low knowledge (15%), 11 teachers had average knowledge (7%) and 5 teachers had high knowledge (3%).

55 teachers were belonging to the age group of 31-40 years in that 24 teachers had low knowledge (16%), 20 teachers had average knowledge (13%) and 11 teachers had high knowledge (7%).

34 teachers were belonging to the age group of 41-50 years in that 13 teachers had low knowledge (9%), 16 teachers had average knowledge (11%) and 5 teachers had high knowledge (3%).

22 teachers were belonging to the age group of 51 years and above. In that 16 teachers had low knowledge (11%), 4 teachers had average knowledge (3%) and 2 teachers had high knowledge (1%).

Chi-square test was computed for knowledge on selected health problems measures with age, at 5% level of significant with degree of 3. Table value is 7.815 and the calculated value was 8.55 It was less than the table value ( $P < 0.05$ ) so there was no significant association between knowledge of primary school teachers regarding health problems measures with age

Chi-square test was done to find out the relationship between knowledge on health problems measures with Sex at 5% level of significant with degree of freedom 1 calculated value was 0.614, which was less that the table value (3.841) so there was no significant association was observed between the school teacher's knowledge on health problems measures with sex.

Chi-square value was computed. It was (1,660) less than the table value (5.991) at 5% level of significant with degree of freedom 2, so there was no significant relationship between primary school teacher's knowledge on health problems with religion.

40 teachers were qualified with bachelor in education. In that 32 percent teacher had low knowledge, 20 percent had average knowledge and 13 percent teachers had high knowledge.

10 teachers were qualified with Master education in that 10percent had low knowledge, 5 percent had average knowledge and 2 percent had high knowledge.

2 teachers were qualified physical education in that 2 percent had low knowledge, 2 percent had average knowledge and 0 percent had high knowledge, and 4 teachers were others had low knowledge 3 percent and 2 percent average knowledge and 2 percent had high knowledge.

Chi-square test was done to find out the association between the knowledge and Educational Qualification. The calculated value was (8.679) with degree of freedom 3 at 5% significant level. The table value was (7.815), so the calculated value was higher than the table value so there was significant relationship was found between the knowledge of school teachers with their Educational Qualification.

Chi-square value was computed. It was (2.115) less than the table value (5.991) with degree of freedom 3 at 5% significant level. So there was no significant association was found between the knowledge primary school teachers regarding selected health problems with their teaching experience.

The study utilized a Chi-Square test to examine the relationship between the knowledge of primary school teachers on selected health problems and the school health program implemented in their schools. The Chi-Square value obtained (0.452) was less than the table value (3.841) at a 5% level of significance, indicating no significant relationship between these variables.

In discussions about the health of school-age children, the prevalence of diseases and health hazards in developing countries is highlighted, with preventable clinical illnesses being a significant concern. School-aged children represent a substantial subset of the population, requiring attention to their educational, health, and social development. Given their vulnerability to childhood diseases, comprehensive health services in schools are essential, with primary school teachers playing a crucial role in promoting



children's health. The present study, conducted among primary school teachers in Rewa, aimed to assess their knowledge of health problems.

The study found that more than half of the primary school teachers had poor knowledge, followed by those with average and high knowledge levels. Analysis revealed significant relationships between knowledge and age and educational qualifications, while no significant associations were found with variables such as sex, religion, teaching experience, and participation in school health programs.

The study employed a descriptive design, with data collected through structured questionnaires. Validity and reliability were ensured through expert validation and test-retest methods. Major findings included the demographic characteristics of the sample, with the majority being female Hindu teachers with bachelor's degrees in education and 6-10 years of teaching experience.

In summary, while significant relationships were found between primary school teachers' knowledge and certain demographic variables, no significant association was observed with participation in school health programs. This underscores the need for further education and training for primary school teachers regarding health problems to enhance their effectiveness in promoting children's well-being.

The study revealed that more than half of the sample exhibited poor knowledge (51%), while more than one-third had average knowledge (54%), and only a small percentage demonstrated high knowledge (15%). Significant relationships were observed between primary school teachers' knowledge and selected variables such as age and educational qualification. However, no significant associations were found between knowledge and variables such as sex, religion, teaching experience, and participation in school health programs.

### Implications and Recommendations

The findings have implications across various domains of nursing. In nursing education, there is a need to focus on training nursing students regarding common health problems in schoolchildren, emphasizing preventive and promotive aspects. Students can be encouraged to organize school health programs and participate actively in health awareness campaigns. In nursing practice, nurses must educate school teachers on common health problems through health education sessions and individualized instruction. Moreover, nurse administrators should plan training programs for nursing personnel on preventive and control measures for physical health problems in schoolchildren and organize educational programs in schools and community settings.

In terms of recommendations, future studies could include larger samples or comparative analyses between private and government schools, urban and rural settings, or among the general public. Additionally, experimental studies assessing the effectiveness of structured teaching programs could provide valuable insights into improving knowledge among primary school teachers. Overall, the study's conclusions and recommendations provide a foundation for further research and interventions aimed at enhancing the health knowledge of primary school teachers and improving the health outcomes of schoolchildren.

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