"A STUDY TO ASSESS THE EFFECTIVENESS OF PLANNED TEACHING PROGRAM, IN TERMS OF KNOWLEDGE AND PRACTICES, OF ANMs, TOWARDS THE MANAGEMENT OF COLD CHAIN YSTEM, FOR DIFFERENT CATEGORIES OF VACCINES, OF SELECTED RURAL AREAS IN KANPUR"

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ABSTRACT

This study aims to assess the effectiveness of a planned teaching program for Auxiliary Nurse Midwives (ANMs) in managing the cold chain system for various categories of vaccines in selected rural areas of Kanpur. The objectives include developing a structured teaching program, evaluating the knowledge and practices of ANMs, examining the correlation between their knowledge and practices, and assessing the effectiveness of the teaching program. Using a pre-experimental research approach with a one-group pre-test post-test design, the study involved 60 ANMs working in rural healthcare settings. Non-probability convenient sampling was utilized for participant selection. Data were collected through structured questionnaires administered before and after the teaching program. The findings revealed a significant increase in both knowledge and practice scores of ANMs after the administration of the teaching program. The mean post-test knowledge scores were significantly higher than the pre-test scores, supporting hypothesis H1. Similarly, the mean post-test practice scores were significantly higher than the pre-test scores, confirming hypothesis H2. A high degree of correlation was observed between pre-test and post-test knowledge, as well as between pre-test and post-test practice. The study concludes that the planned teaching program was effective in enhancing the knowledge and practices of ANMs in managing the cold chain system for vaccines. These findings underscore the importance of structured educational interventions in improving healthcare delivery, particularly in rural areas. Future research could focus on longitudinal studies to assess the long-term impact of such teaching programs on healthcare practices and patient outcomes.

Introduction

In recent years, effective vaccine management has emerged as a critical aspect of public health, ensuring the potency and efficacy of immunizations across diverse populations. However, in rural areas, where healthcare resources are often limited, maintaining the cold chain system for vaccines poses unique challenges. In response to this pressing need, this study endeavors to evaluate the effectiveness of a planned teaching program tailored for Auxiliary Nurse Midwives (ANMs) in rural Kanpur, focusing on enhancing their capacity to manage the cold chain system for various categories of vaccines.

OBJECTIVES

1. To develop the planned teaching program for ANMs on the management of cold chain system for different categories of vaccines.
2. To assess the knowledge of ANMs in management of cold chain system for different categories of vaccines.
3. To assess the practices of ANMs in management of cold chain system for different categories of vaccines.
4. To find out the correlation between knowledge and practice of ANMs.
5. To assess the effectiveness of planned teaching program regarding management of cold chain system for different categories of vaccines.

HYPOTHESIS

- **H₁** The mean post-test knowledge scores of ANMs after the administration of guidelines on management of cold chain system will be significantly higher than the mean pre-test knowledge scores as measured by structure knowledge questionnaire at 0.05 level of significance.

- **H₂** The mean post-test practice scores of ANMs after the administration of guidelines on management of cold chain system will be significantly higher than the mean pre-test knowledge scores as measured by structure knowledge questionnaire at 0.05 level of significance.

- **H₃** The planned teaching program will be effective for the ANMs to manage the cold chain system at 0.05 level of significance.

OPERATIONAL DEFINITIONS

Auxiliary nurse midwives (ANMs): Refers to female health workers who have successfully completed 2 years or 18 months duration training program from recognized schools and are posted at sub centers, primary health center, community health center and dispensaries in selected cities.

COLD CHAIN: The cold chain is the system of transport and storage of vaccines at recommended low temperature from the manufacturer to the point of use.

MANAGEMENT: refers to task and activities carried out for management of cold chain system for vaccine

VACCINES: vaccine is the delicate immune biological substance designed to produce specific protection against a given disease.

KNOWLWDGE: refers to correct responses of auxiliary nurse midwives on structured questionnaire about management of cold chain system for vaccine as evident from knowledge score.

PRACTICE: refers to one's ability to perform an activity correctly. In the present study, practice denotes activities carried out with regard to cold chain management as expressed by auxiliary nurse midwives on practice questionnaire as evident from their practice score.

EFFECTIVENESS: refers to the acquisition of knowledge and improvement in practices regarding management of cold chain system for vaccines after introduction of guidelines as evident from the knowledge scores and practice scores.

PLANNED TEACHING PROGRAM: It is planned education knowledge program, given to the ANMs to increase the knowledge regarding management of cold chin system.

RESEARCH METHODOLOGY-

RESEARCH APPROACH

The investigator selects "Pre experimental" as research approach on the basis of problem and objectives to be accomplished. An evaluative approach is applied from of research that involves how well a program, practice, procedure or policy is working.

The research design selected for the study was pre-experimental one group pre-test post-test design because control group could not be selected. This is relatively forward research design in which there is an intervention group without a control group, called as pre-experimental one group pre-test post-test design which comes under one of the category of Experimental design.

VARIABLES-

Independent variable- it is the intervention or treatment that the investigator performs to see the resulting change in the dependent variables. The independent variable in this study was planned teaching program.

Dependent variable- It is an outcome variable. The dependent variable is the presumed cause for the resulting effect on the dependent variable. Dependent variable in this study was knowledge and practice of management of cold chain system for different categories of vaccines.

SETTING OF THE STUDY-

The setting refers to the physical location and conditions where data collection takes place. In this study, the research was conducted in "CHCs, PHCs, and Subcenters inKanpur the rural area included. ANMs who are working in rural areas, CHCs, PHCs, and sub centerwhere taken as samples.

POPULATION-

A population is a group whose members possess specific attributes that a researcher is interested in studying.

Target population- the target population of this study was ANMs who are working.

Accessible population- the part of the target population that is available to the investigator. The accessible population in this study was all ANMs who are working in rural areas, CHCs, PHCs, and sub center.

SAMPLE AND SAMPLING TECHNIQUE-

A sample is the subset of a population selected to participate in research study. The sample size is determined based on the type of precision required, significant level, type of variables, type of study, purpose of the study and type of data collection procedure and feasibility of men, money and material.

In this study the samples were 60 ANMs who are working in rural areas, CHCs, PHCs, and sub center.

Non probability convenient sampling technique was used for selection of samples. The sample who were available at the time of data collection and also who fulfills the inclusive criteria.

SAMPLING CRITERIA-

The criteria for sample selection are mainly depicted under two headings, which includes the Inclusive criteria and the exclusive criteria.

Inclusive criteria-

1. ANMs who are working and posted in rural areas, CHCs, PHCs and Subcenters.
2. ANMs who are working and read Hindi.
3. ANMs who are working and available at the time of data collection.

Exclusive criteria-

1. ANMs who are working and not willing to participate in the study.

Results

The mean of pretest knowledge score of ANMs was 13.18 with S.D. 5.41. The mean of pretest practice score of ANMs was 17 with S.D. 5.92. The mean of posttest knowledge score of ANMs was 24.43 with S.D. 5.16. The mean of posttest practice score of ANMs was 26.1 with S.D. 6.22.Correlation between Pretest knowledge & posttest knowledge 0.93. Correlation between Pretest practice & posttest practice 0.85.t test value ItI =23.64. So, t paired pre & posttest knowledge of t calculation > 0.05 level of significance. t calculated >t tabulated that means planned teaching program is effective.t test value ItI=24.57. So, t paired pre & posttest practice of t calculation > 0.05 level of significance.t calculated>t tabulated that means planned teaching program is effective.

DISCUSSION

It deals with the discussion part according to the results, obtained from statistical analysis based on the data of the study, the reviewed literature, hypothesis which was selected for the study. The purpose of the study, technical research efforts of the investigator presented the discussion of the study that revealed the fact about knowledge of ANMs regarding management of cold chain system for different categories of vaccines after the administration of planned teaching program.

In order to achieve the objectives of the study, one group Pre-test and Post-test design was adopted. Convenient sampling technique was used to select sample. The data were collected from 60 respondents of the ANMs before and the administration of planned teaching program by structured questionnaire.

CONCLUSION

The obtained findings led to the following conclusions:

- The mean score for overall Pre-test level of knowledge among ANMs in the Pre-test was 13.18 with standard deviation of about 5.41. And the meanscore of Post-test level of knowledge was 24.43 with standard deviation of about 5.16

- The mean score for overall Pre-test level of practice among ANMs in the Pre-test was 17 with standard deviation of about 5.92. And the mean score of Post-test level of practice was 26.1 with standard deviation of about 6.22

- High degree of correlation found in Pre-test knowledge and Post-test knowledge with 0.93

- High degree of correlation found in Pre-test practice and Post-test practice with 0.85

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