

# Evaluate the Effectiveness of CAI on Knowledge and Practice Regarding Reproductive and Child Health Services among Community Health Officers in Selected Districts of Uttar Pradesh Pilot Study

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**How to cite this paper:** Mr. Saneesh VM | Dr. Victor Devasirvadham "Evaluate the Effectiveness of CAI on Knowledge and Practice Regarding Reproductive and Child Health Services among Community Health Officers in Selected Districts of Uttar Pradesh Pilot Study" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-2, February 2022, pp.697-701, URL: [www.ijtsrd.com/papers/ijtsrd49295.pdf](http://www.ijtsrd.com/papers/ijtsrd49295.pdf)



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## INTRODUCTION

The Community Health Officers (CHOs) are a new cadre of non-physician health workers. They will play a critical role in the provision of an expanded range of essential packages of services as a part of Comprehensive Primary Health Care. They are expected to lead the primary care team at Sub Centre-Health and Wellness Centre, provide clinical management & ambulatory care to the community and serve as an important coordination link to ensure the continuum of care.

Today, maternal and child health services have been further strengthened by adding services like, reproductive and child health, immunization, family planning, protecting Community Health Officers and children against anaemia, preventing blindness, creating postnatal units in big hospitals and training programs for Trained Birth Attendant (TBA). This implies a close relationship of maternity health to child health, of maternal child health to the health of the family; and of family health to the general health of the community. In providing these services, specialists in obstetrics and child health have joined hands and or now looking beyond the four walls of hospitals into the community to meet the health needs of Community Health Officers and children aimed at positive health.

Since we have a shortage of doctors and specialists, the shift in role to mid-level health care providers will relieve the overburdened doctors and specialists, at least in rural health settings. The mid-level health care provider has a limited license only in primary

and preventive healthcare to practice medicine at mid-level to such persons, who qualify such criteria as may be specified by regulations which will have an overwhelming representation of doctors. This initiative by the government of India will help to provide easy and affordable health care services to the population which also play an important role in universal health coverage in India

## OBJECTIVES

1. To assess the pre-test and Post-test knowledge of Community Health Officer (CHOs) regarding reproductive and child health services in the experimental and control group
2. To assess the pre-test and Post-test Practice of Community Health Officer (CHOs) regarding reproductive and child health services in the experimental and control group
3. To evaluate the effectiveness of CAI on knowledge and practice regarding reproductive and child health services in the experimental and control group
4. To find the relationship between the post-test level of knowledge and the Practice of Community Health Officer (CHOs) regarding reproductive and child health services in the experimental and control groups.
5. To find out the association between pre-test level of knowledge of Community Health Officers (CHOs) with selected socio-demographic variables in the experimental and control group

- To find out the association between pre-test level of Practice of Community Health Officer (CHOs) with selected socio-demographic variables in the experimental and control group

**RESEARCH HYPOTHESES tested at P<0.05 level.**

- H<sub>1</sub>:** There is a significant difference between pre-test and post-test levels of knowledge and Practice of Community Health Officer (CHOs) regarding reproductive and child health services in the experimental group.
- H<sub>2</sub>:** There is a significant difference in the post-test level of knowledge and practice regarding reproductive child health services among CHOs between the experimental and control group.
- H<sub>3</sub>:** There is a significant association between the pre-test level of knowledge among Community Health Officers (CHOs) regarding reproductive and child health services with the selected socio-demographic variables in the experimental and control groups.
- H<sub>4</sub>:** There is a significant association between the pre-test level of practice among Community Health Officers (CHOs) regarding reproductive and child health services with the selected socio-demographic variables in the experimental and control groups.
- H<sub>5</sub>:** There is a significant relationship between the pre-test and post-test level of knowledge and Practice among Community Health Officers (CHOs) regarding reproductive and child health services in the experimental and control group.

**RESEARCH DESIGN:** A Quasi-experimental pre-test post-test control group design was adopted to assess the Knowledge and practice of CHOs regarding reproductive and child health services.

**SETTING OF THE STUDY;** This study will be carried out in the Community Health Centers (CHCs)/ Primary Health Centers (PHCs) of selected Districts of Uttar Pradesh.

**POPULATION:** CHOs of Selected Districts in Uttar Pradesh

**SAMPLE SIZE:** The sample size of the pilot study is 30 CHOs working in the rural sub-centres. 15 samples in the experimental group and 15 samples in the control group

**SAMPLING TECHNIQUE:** Non-Probability convenient sampling technique was used in the study

**DESCRIPTION OF THE TOOL**

**Part 1:** Demographic Variable

**Part 2: A:** Knowledge Questionnaire- to assess the Knowledge of CHOs

**B:** Observations Checklists - to assess the Practice of CHOs

**ORGANIZATION OF DATA**

**SECTION 1:** Analysis of demographic variables and information related to reproductive child health services among CHOs in the experimental and control groups.

**SECTION 2:** Assessment and comparison of pretest level of knowledge and practice of reproductive child health services among CHOs in the experimental and control groups.

**SECTION 3:** Assessment and comparison of the post-test level of knowledge and practice of reproductive child health services among CHOs in the experimental and control group.

**SECTION 4:** Comparison of pretest and post-test level of knowledge and practice of reproductive child health services among CHOs in the experimental and control group.

**SECTION 5:** correlation between pre & post-test score of knowledge & practice in experimental & control group.

**SECTION 6:** Association between pretest level of knowledge and practice of reproductive child health services with their selected demographic variables among the experimental and control groups.

**Table-1 Frequencies and percentage, distribution of demographic variables related to RCH services among CHOs:**

Demographic Variables	Experiment Group Frequency	Percentage	Control Group Frequency	Percentage
<b>Age</b>				
20-25 years	5	33%	5	33%
26-30 years	6	40%	7	47%
31-35 years	3	20%	2	13%
>35 years	1	7%	1	7%
<b>Basic Qualifications</b>				
GNM	4	27%	6	40%
BSC N	2	13%	2	13%
PB BSC	8	53%	6	40%
MSC	1	7%	1	7%

<b>Year of Experience</b>				
1-2 years	10	67%	12	80%
3-4 years	5	33%	3	20%
4-5 Years	0	0%	0	0%
>5 Years	0	0%	0	0%
<b>Marital Status</b>				
Married	4	27%	4	27%
Unmarried	9	60%	9	60%
Divorced	2	13%	1	7%
Separated	0	0%	1	7%
<b>Monthly Income</b>				
10000-20000	0	0%	0	0%
20001-30000	1	7%	1	7%
30001-40000	9	60%	10	67%
>40001	5	33%	4	27%
<b>Place of Residence</b>				
Rural	9	60%	10	67%
Urban	6	40%	5	33%
<b>Type of Institution undergone training</b>				
Government	8	53%	9	60%
Private	7	47%	6	40%
Others	0	0%	0	0%
<b>Refresher courses attended on RCH/NRHM/IMNCI</b>				
Yes	15	100%	15	100%
NO	0	0%	0	0%
<b>If yes, the number of refresher courses attended</b>				
One	5	33%	8	53%
Two	9	60%	7	47%
Three	1	7%	0	0

**CONCLUSION:** The study was a quasi-experimental study, with pre-test&post-test control group design. The study was conducted with 30 samples of which 15 were assigned to the experimental group and 15 to the control group. Non-probability convenient sampling technique was used. A semi-structured questionnaire was provided to assess the knowledge and observed the practice by observational checklist among the CHOs at selected districts, U.P. After the pretest, the computer-assisted instruction was given by the investigator. After 15 days from the pretest, post-test was conducted by using the same questionnaire; the data were grouped and analyzed by using descriptive statistics and inferential statistics with help of SPSS software.

**The first objective of the study was to assess the knowledge & practice regarding RCH Service before computer-assisted instruction among the CHOs.**

The assessment of pretest level of knowledge revealed that 8(53.3%) had Moderately adequate knowledge, 5(33.3%) had adequate knowledge, 2(13.3%) had Inadequate knowledge in the experimental group. Wherein the control group

9(60%) have Moderately adequate knowledge, 3(20%) had adequate knowledge and 3(20%) had adequate knowledge in control group.

The assessment of pretest level of practice revealed that 8(53.3%) had Moderately adequate Practice, 5(33.3%) had adequate Practice, 2(13.3%) had Inadequate practice in the experimental group. Whereas in the control group 9(60%) have Moderately adequate practice, 3(20%) had adequate practice and 3(20%) had adequate practice in the control group

**The second objective was to evaluate the effectiveness of computer-assisted instruction on knowledge & practice regarding RCH Services among the CHOs.**

The assessment of posttest level of knowledge revealed that 13(53.3%) had adequate knowledge, 2(13.3%) had moderately adequate knowledge, whereas in the control group 10(66.7%) have Moderately adequate knowledge, 4(26.7%) had adequate knowledge and 1(6.6%) had adequate knowledge in the control group. Whereas the assessment of posttest level of practice revealed that

12(80%) had adequate Practice, 3(20%) had moderately adequate Practice in the experimental group. Wherein the control group 11(73.3%) have Moderately adequate practice, 4(26.7%) had adequate practice in the control group.

So, the study finding showed that CAI was effective in increasing the knowledge and practice of CHOs regarding RCH services. The analysis revealed that the mean value of the pretest level of knowledge was 32.93 & its standard deviation was 16.30, the mean value of the pretest level of practice was 35.53 & its SD was 16.40. The mean value of the post-test level of knowledge was 40.80 & its standard deviation was 14.51, the mean value of post-test level of practice was 36.80 & its SD was 14.51 in the experimental group and the paired 't' value of knowledge was 1.8356 which shows statistically not significant and for practice 7.4888, which shows statistically significant.

Whereas in the control group the mean value of the pretest level of knowledge was 32 & its standard deviation was 16.04, the mean value of pre-test level of practice was 34.73 & its SD was 16.59. The mean value of the post-test level of knowledge was 33.81 & its standard deviation was 16.72, the mean value of the post-test level of practice was 36.80 & its SD was 17.45 in the control group and the paired 't' value of knowledge was 0.0008 and for practice 0.0136, which shows statistically not significant in knowledge practice. In hypothesis ( $H_1$ ) it was stated therefore would be a significant difference in the post-test level of knowledge and practice regarding reproductive child health services among CHOs between the experimental and control group.

#### **The third objective to correlate the knowledge & practice regarding RCH Service among CHOs**

In the corresponding hypothesis, it was stated that there would be a significant positive relationship between the post-test level of knowledge & practice in the experimental & control group. As per the study findings, there was a significant positive correlation between the post-test level of knowledge & practice in

The experimental group  $r=0.56$  whereas in the control group  $r=0.88$ . Since the calculated value was greater than the table value.

#### **The fourth objective of the study was to associate the pre-test level of knowledge & practice at 0.05 level RCH Service among CHOs with the selected demographic variables.**

The present study showed that there was no significant association between the selected demographic variables. The analysis revealed that there was no significant association of pretest level of knowledge with demographic variables of Age of the

CHOs, Educational Qualifications, year of experience, marital status, monthly income, place of residence, type of training undergone and several refresher courses attended in the experimental group.

The analysis revealed that there was no significant association of pretest level of knowledge with demographic variables of Age of the CHOs, Educational Qualifications, year of experience, marital status, monthly income, place of residence, type of training undergone and number of refresher courses attended in the experimental and control group

The analysis revealed that there was no significant association of pretest level of practice with demographic variables of Age of the CHOs, Educational Qualifications, year of experience, marital status, monthly income, place of residence, type of training undergone and several refresher courses attended in the experimental and control group.

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