

“A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PREVENTION OF TORCH COMPLEX DURING PREGNANCY AMONG ANTENATAL MOTHERS IN SELECTED COMMUNITY HEALTH CENTERS (CHCs) of Kanpur.”

Muskaan, Priya Yadav, Priya Singh, Priyanka Rajpoot, Priyanka Singh, Akshay Kumar¹,

B.SC Nursing students, Faculty of nursing, Rama University, Mandhana, Kanpur, Uttar Pradesh, India.

Prof (Dr.) Jasmi Johnson², H.O.D, Department of Obstetrics and Gynaecological Nursing
Faculty of nursing, Rama University, Mandhana, Kanpur, Uttar Pradesh, India.

jasmi.rcn.mnd@ramauniversity.ac.in

ABSTRACT

The term TORCH complex or TORCHes infection refers to the congenital Infections of toxoplasmosis, others (Syphilis, Hepatitis B), rubella, Cytomegalovirus (CMV), and herpes simplex. These are caused by Toxoplasma gondii, Treponema pallidum, Hepatitis B virus, Rubella virus, cytomegalovirus, and herpes virus simplex (HSV) viruses respectively. Other pathogens associated with congenital infections include human immunodeficiency virus (HIV), parvovirus, and varicella virus. It is the intrauterine transmission of these infections to the fetus which produces multiple symptoms when the child is born. Maternal risk factors include lapsed immunizations, sexually transmitted infections, and animal exposures during pregnancy. The timing of maternal infection is a key epidemiologic factor because fetal damage usually depends on the gestational age. With the exception of HSV, infections during the first trimester have the worst outcome.

PROBLEM STATEMENT

A study to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers in selected Community Health Centers (CHCs) of Kanpur.

OBJECTIVES

1. To assess the pre-test level of knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers in selected Community Health Centers (CHCs) of Kanpur.
2. To determine the effectiveness of structured teaching programme on knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers.
3. To find out the association between pre-test knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers with their selected demographic variables.

METHOD

The study was quasi-experimental research design. Setting of the study was conducted at selected Community Health Centers (CHCs) of Kanpur.

RESULT

The study showed that among 60 antenatal mothers, the result of pretest knowledge consist of level 13(21.67%) Inadequate knowledge, 47(78.34) Moderate knowledge and 0(0%) adequate knowledge. The result of the post-test knowledge consist of level 0(0%) Inadequate knowledge, 48(80%) Moderate knowledge and 12(20%) Adequate knowledge.

Increase percentage of knowledge showed improvement in the knowledge regarding prevention of TORCH Complex among antenatal mothers.

CONCLUSION

The result of the study showed that there is significant association between age, religion, monthly income, types of family, educational status, gestational weeks, area of residence and food habits of mothers.

INTRODUCTION

The term TORCH complex or TORCH infection refers to the congenital infections of the toxoplasmosis, or others (Syphilis, Hepatitis B), rubella, Cytomegalovirus (CMV), and herpes simplex. These are caused by the *Toxoplasma gondii*, *Treponema palladium*, Hepatitis B virus, Rubella virus, cytomegalovirus, and herpes virus simplex (HSV). In newborns with a concern for inherited, toxoplasmosis evaluation should include the laboratory testing, consultations, and the radiologic studies. Due to the possibility of ocular involvement, and an ophthalmologist should be consulted to assess for, possible chorioretinitis. Neuroimaging studies, should be conducted to assess intracranial calcifications and hydrocephalus. Laboratory testing can be bit complicated. The most sensitive and specific testing includes the mixture of tests to assess for IgA, IgG, and IgM. Most experts suggest the use of reference laboratory that can assess the newborn with IgG (Dye test), IgM, ISAGA, and IgA, ELISA. If the child has not been born or maternal testing can also be conducted, which may include either an avidity panel or a differential of agglutination test depending on the week of pregnancy.

NEED OF THE STUDY

Knowledge of these diseases can help the doctors appropriately advise mothers on their preventive measures to avoid these infections and help in counseling parents on the potential for adverse fetal results when these infections are present.

PROBLEM STATEMENT

A study to evaluate the effectiveness of structured teaching programme on knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers in selected Community Health Centers (CHCs) of Kanpur.

OBJECTIVES

1. To assess the pre-test level of knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers in selected Community Health Centers (CHCs) of Kanpur.
2. To determine the effectiveness of structured teaching programme on knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers.
3. To find out the association between pre-test knowledge regarding prevention of TORCH Complex during pregnancy among antenatal mothers with their selected demographic variables.

HYPOTHESIS

Hypothesis will be tested at 0.05 level of significance.

H₀₁. There will be no significant difference between the pretest and post-test level of knowledge regarding effectiveness of structured teaching programme knowledge antenatal mothers regarding TORCH Complex among antenatal mothers.

H₀₂. There will be no significant association between levels of knowledge regarding the effectiveness of structured teaching programme knowledge regarding TORCH Complex among antenatal mothers.

METHODS AND MATERIALS

For the present study, Quantitative evaluatory approach was Research approach.

RESEARCH DESIGN

Quasi experimental one group pre-test and post-test without control group research design has been adapted for this study.

Key words: *Torch Complex, effectiveness of structured teaching programme, antenatal mothers, Community Health Centers (CHCs) and intrauterine transmission.*

DOI:
10.5455/jcmr.2024.15.02.27

VARIABLES

INDEPENDENT VARIABLE

Independent variables has been structured teaching programme on prevention of TORCH Complex among antenatal mothers.

DEPENDENT VARIABLE

Dependent variable has been the knowledge among antenatal mothers regarding prevention of TORCH Complex.

DEMOGRAPHIC VARIABLES

In this study, demographic variables are name, age, religion, and educational status, dietary pattern, no of pregnancy, previous knowledge regarding TORCH infection among antenatal mother's and mark percentage.

POPULATION

The population of present study were all antenatal mothers in Community Health Centers (CHCs) of Kanpur.

TARGET POPULATION

The target population for the present study were antenatal mothers in Community Health Centers (CHCs) of Kanpur.

ACCESSIBLE POPULATION

The accessible population were antenatal mothers in selected Community Health Centers (Kalyanpur, Shivrajpur and Chaubeypur) of Kanpur.

SAMPLE

The sample for this study were antenatal mothers in Community Health Centers (CHCs) of Kanpur.

SAMPLE SIZE

The sample size for the present study were 60 antenatal mothers in Community Health Centers (CHCs) of Kanpur.

SAMPLING TECHNIQUES

In this present study **Purposive Sampling** was used to select the sample.

SAMPLING CRITERIA

"Criteria of sampling involves selecting cases that meet some predetermined criteria of importance".

INCLUSION CRITERIA:

Antenatal mothers;

Who were in 1st, 2nd, 3rd, trimester.

Who were primigravida, multigravida, elderly primi, and grand multi Para mothers.

Who were able to understand Hindi.

EXCLUSION CRITERIA

Antenatal mothers who were not present at the time of data collection.

Who were not willing to participate in the study.

METHODS OF DATA COLLECTION

Self-structured questionnaire was used to assess the level of knowledge regarding and prevention of management among primary school Teachers, Kanpur, U.P.

DEVELOPMENT AND DESCRIPTION OF TOOLS USED IN THE STUDY:

The tool to assess the knowledge regarding prevention of MIS-C and management of primary school teachers will be developed through self-structured questionnaire

The tool consists of 2 sections:

SECTION A: Socio-demographic variables

SECTION B: Self-structured questionnaire related to TORCH Complex.

SAMPLE

The sample for this study were antenatal mothers in Community Health Centers (CHCs) of Kanpur who fulfils the inclusion and exclusion criteria that are accessible as subject of the study.

SAMPLE SIZE

The sample size for the present study were 60 antenatal mothers in Community Health Centers (CHCs) of Kanpur.

SAMPLING TECHNIQUES

In this present study Purposive Sampling was used to select the sample.

SAMPLING CRITERIA

"Criteria of sampling involves selecting cases that meet some predetermined criteria of importance".

INCLUSION CRITERIA:

Antenatal mothers;

1. Who were in 1st, 2nd, 3rd, trimester.

2. Who were primigravida, multigravida, elderly primi, and grand multi Para mothers.
3. Who were able to understand Hindi.

EXCLUSION CRITERIA

1. Antenatal mothers who were not present at the time of data collection.

2. Who were not willing to participate in the study.

METHODS OF DATA COLLECTION

Self-structured questionnaire was used to assess the level of knowledge.

DEVELOPMENT AND DESCRIPTION OF TOOLS USED IN THE STUDY:

The tool consists of 2 sections:

SECTION A: Socio-demographic variables

SECTION B: knowledge based on Self-structured questionnaire related to prevention of TORCH Complex.

RESULT AND FINDINGS

Section A: frequency and percentage distribution of demographic variable.

The major findings of the study were as follows:

1. Majority of antenatal mothers 31 (51.67%) were in the age group of 21-25 years.
2. Majority of antenatal mothers 52(86.67%) were Hindus.
3. Majority of antenatal mothers 26(43.34%) were having monthly income Rs 10001.
4. Majority of antenatal mothers 33(55%) were lived in joint family.
5. Majority of antenatal mothers 22(36.67%) had primary education.
6. Majority of antenatal mothers 29(48.34%) were obtained knowledge from book.
7. Majority of antenatal mothers 23(38.34%) were in between 13-27 weeks.
8. Majority of antenatal mothers 32(53.34%) were lived in urban areas.
9. Majority of antenatal mothers 41(68.34%) were vegetarian.

Section B: Distribution of antenatal mothers according to the pre-test and post-test level of knowledge regarding prevention of TORCH Complex.

| S.NO. | Level of knowledge | Pre test | | Post test | |
|-------|----------------------|-----------|-------------|-----------|--------------|
| | | Frequency | % | Frequency | % |
| 1 | Inadequate knowledge | 13 | 21.67% | 0 | 0% |
| 2 | Moderate knowledge | 47 | 78.34% | 48 | 80% |
| 3 | Adequate knowledge | 0 | 0% | 12 | 20% |
| | TOTAL | 60 | 100% | 60 | 100 % |

Section C: Comparison of pre-test and post-test knowledge regarding prevention of TORCH Complex among antenatal mothers.

| S.NO | Knowledge level | Mean | Mean difference | Mean percentage | SD |
|------|-----------------|-------|-----------------|-----------------|------|
| 1 | Pretest | 7.81 | 5.74 | 13.01% | 1.38 |
| 2 | posttest | 13.55 | | 22.58% | 1.14 |

Section D: Effectiveness of structured teaching programme regarding prevention of torch complex

| S.NO | LEVEL OF KNOWLEDGE | MEAN | Mean Difference | SD | Paired t value | Table value |
|------|--------------------|-------|-----------------|------|----------------|------------------------------------|
| 1 | Pretest | 7.81 | 5.74 | 1.38 | 17.12 | 1.67 At 0.05 level of Significance |
| 2 | Post-test | 13.55 | | 1.14 | | |

Section E: Association between the level of Pre-test knowledge score with the demographic variables of antenatal mothers.

It is revealed that there were significant association with Age in years, Religion, Type of family, Previous knowledge, Area of residence and Food habit of mothers, but there was no significant association with Educational status, Monthly income and Gestational weeks. So here **Null hypothesis (H_0) was rejected** and **Positive hypothesis (H_1) was accepted.**

CONCLUSION

On the basis of findings of the study it was concluded that after Structured teaching programme on knowledge regarding prevention of TORCH Complex was cleared to antenatal mothers which was indicated by significant increase in post-test mean knowledge scores.

REFERENCES

1. Oates M. 6 Normal emotional changes in pregnancy and the puerperium Baillière's clinical obstetrics and gynaecology. 1989 Dec 1; 3(4):791-804.
2. Singh L, Mishra S, Prasanna S, Cariappa MP. Seroprevalence of TORCH infections in antenatal and HIV positive patient populations. medical journal armed forces india. 2015 Apr 1; 71(2):135-8.
3. Pomares C, Montoya JG. Laboratory diagnosis of congenital toxoplasmosis. Journal of clinical microbiology. 2016 Oct; 54(10):2448-54.
4. Chu SY, Buehler JW, Berkelman RL. Impact of the human immunodeficiency virus epidemic on mortality in women of reproductive age, United States. Jama. 1990 Jul 11; 264(2):225-9.
5. Rajani M. Serological profile of TORCH infection among antenatal women at a tertiary care center in North India. J Pure Appl Microbiol. 2018 Dec 1; 12(4):2305-11.
6. Committee on Practice Bulletins-Gynecology, American College of Obstetricians and Gynecologists. Intrauterine growth restriction: Clinical management guidelines for obstetrician-gynecologists. Int J Gynaecol Obstet. 2001; 72(1):85-96.
7. Marsico C, Kimberlin DW. Congenital Cytomegalovirus infection: advances and challenges in diagnosis, prevention and treatment. Italian journal of pediatrics. 2017 Apr 17; 43(1):38.
8. Cooper JM, Sánchez PJ. Congenital syphilis. Semin Perinatol. 2018 Apr; 42(3):176-184.
9. Stegmann BJ, Carey JC. TORCH Infections. Toxoplasmosis, Other (syphilis, varicella-zoster, parvovirus B19), Rubella, Cytomegalovirus (CMV), and Herpes infections. Current women's health reports. 2002 Aug 1; 2(4):253-8.
10. Ahmed NS, Ahmed HA, Mohammed NA, Mohamed HH. Toxoplasma, cytomegalovirus and rubella infections among aborted women attending Sohag University Hospital, Egypt. Egyptian Journal of Medical Microbiology. 2018 Jan 1; 27(1):89-94.