

## EFFECTIVENESS OF STP ON KNOWLEDGE REGARDING PREVENTION OF “TORCH” INFECTIONS DURING PREGNANCY AMONG ANTENATAL MOTHERS IN A SELECTED HOSPITAL AT KURNOOL

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### Abstract

All of the TORCH infections can affect people of any age or sex. However, the term TORCH is only used when it applies to pregnant women and their unborn or newborn children. As a group, TORCH infections represent a common cause of birth defects. They can cause still births in the delivery of a dead baby. In this study evaluative approach and true experimental pre test post test was used. Total 60 samples were in these study 30 experimental and 30 control group. Samples were selected through simple random sampling technique and setting was Government hospital, Kurnool. Data are collected through structured questionnaire. The finding of the experimental group of mothers pre test knowledge score was 27 (90%) level of knowledge was inadequate. 1 (3%) level of knowledge was moderately adequate knowledge. 2(7%) level of knowledge was adequate in experimental group. Now the level of knowledge score was adequate in experimental group. Hence the evaluate the effectiveness of STP on post test knowledge in experimental group was 34.0%, pre test % was 4.8. Comparison in post test percentage of knowledge in experimental group the knowledge score was 34.17 whereas in control group the knowledge score was 3.79. The overall mean post test knowledge score of mothers in the experimental group was significantly higher than the pre test knowledge score of mothers the paired t test value was  $t = 25$  for knowledge. The chi square shows that there was no significant association between pre test and post test knowledge score in the experimental and control group of mothers with their demographic variables. The findings of this study were the need of obstetric nurse to conduct training programme to the mothers coming to the antenatal visit to increase the knowledge of mother regarding prevention of TORCH infection.

**Key words:** TORCH, infection, pregnant, newborn and obstetric.

### INTRODUCTION

Pregnancy is the most fascinating and delicate experience for a women. Not only the health of the baby in the womb but also the woman's health is of equal importance to all her friends' well wishers and family members. Every pregnancy is unique experience for the women experiences will be new and uniquely different. The state of carrying a developing embryo or fetus within the female body. This condition can be indicated by positive results on an over-the-counter urine test, and confirmed through a blood test, ultrasound, detection of fetal heartbeat, or an X-ray. Pregnancy lasts for about nine months, measured from the date of the woman's last menstrual period (LMP). It is conventionally divided into three trimesters, each roughly three months long. Reproduction though considered to be an usual process in the life of a women, is stressful and can lead to the threats in reproductive age group women unless, appropriate measures are taken in time, it may reach its peak and endanger the life of mothers. Some infections are more common than usual but all of them need to be prevented at best or at worst nipped in the bud for sure. The primary infections includes TORCH infections an acronym of Toxoplasma, Other infections (like varicella, syphilis, hepatitis, etc...) Rubella, Cytomegalovirus and Herpes. The impact and diagnosis of the disease just mentioned have been touched upon as

well as the vaccination strategies to prevent them have been important. Maternal infections are now being increased and recognized as a major cause of birth defects in newborn babies. In pregnant women the virus can cross placenta and result in fetal infections. TORCH is common in all socio-economic groups but congenital infections with significant impairment is seen at highest rate in population in which women in child bearing age have highest risk of acquiring primary infections. In addition to placental route, TORCH can be transmitted at delivery via the maternal genital tract, during the post partum period in breast milk and transfused blood products.

### NEED FOR THE STUDY

Pregnancy is a period of great anabolic activity, when the most rapid rate of growth takes place. It is a condition in which the fetal growth is accompanied by extensive changes in the maternal body composition and metabolism. Mother and children not only constitute a large group, but they are also a “vulnerable” or special risk group, the risk is connected with Childbearing in the case of women.

Certain infections collectively called TORCH infections can produce Stillbirths, congenital anomalies, abortions, blindness, severe deafness and mental retardation in the offspring's. That may be acquired in utero or during the birth process causing heavy morbidity to both mother

and child. The first trimester is usually the most dangerous time for the mother to catch these infections quite a great risk of the fetus also being affected during this stage. The risk to baby depends on the particular stage of pregnancy and for each infections it varies e.g. first trimester for rubella or at delivery for herpes simplex virus etc, with such a serious implications it becomes important to diagnose TORCH infections so as to treat as well as help to decide about termination of pregnancy. The onus is therefore not only to detect the maternal infections but once detected it is important to know whether the fetus is also infected or not. A pilot study was conducted on TORCH infections among antenatal mothers to analyze TORCH infections in mothers are transmissible to fetus in the womb or during the birth and cause a cluster of symptomatic birth defects. A study was conducted on Primary TORCH infections in the mother can lead to severe fetal anomalies or even fetal loss. A prospective study was designed to detect the seroprevalence of IgM antibodies to *Toxoplasma gondii*, rubella virus and cytomegalovirus and IgG antibodies to Herpes simplex virus type 1 and 2. one hundred and twenty pregnant woman presenting to the antenatal clinic of a tertiary health center were included in this study. Out of these 120 women, 112 (93.4%) had evidence of one or more infections. Prevalence of IgG antibodies to HSV was 70% seropositivities for toxoplasmosis, rubella and CMV respectively were 11.6, 8.3 and 20.8%. Our data demonstrating high frequency of primary infections during pregnancy support the conclusion that routine prenatal TORCH screening is justified. In a study the researcher says that primary infections caused by TORCH can lead to serious complications in pregnant women and suggested that consequently, because of high seropositivity of TORCH in pregnant women, the country's health authorities should be alerted, and preventive measures should be taken. All of the TORCH infections can be spread to other persons. The infections usually cause few, if any symptoms in the pregnant women. On the other hand, babies risk serious birth defects if they catch one of these infections during pregnancy or delivery. Babies are usually most severely affected when the mother gets the infection in the first trimester, or first three months of pregnancy. This is the time of pregnancy when the baby's organs are first starting to form.

#### STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of structured teaching programmed on knowledge regarding Prevention of TORCH infections during pregnancy among Antenatal mothers in a selected hospital at Kurnool.

#### OBJECTIVES OF THE STUDY

- To assess the level of knowledge regarding prevention of TORCH infection during pregnancy antenatal mothers in experimental and control group.
- To evaluate the effectiveness of structured teaching programmed on knowledge regarding prevention of TORCH infection during

pregnancy among antenatal mothers in experimental group.

- To find the post test knowledge regarding prevention of TORCH infection during pregnancy among antenatal mothers with their selected demographic variable.

#### HYPOTHESIS

- H1-There will be a significant differences between the pre and post test knowledge regarding prevention of TORCH infection during pregnancy among antenatal mothers in experience and control group.
- H2-There will be a significant differences between post test level of knowledge regarding prevention of TORCH infection with the experimental and control group.
- H3-There will be a significant associations in knowledge regarding TORCH infection with the demographic variable.

#### ASSUMPTIONS

- STP will improve knowledge of TORCH infection among antenatal mothers regarding prevention of TORCH infection.

#### LIMITATION OF THE STUDY

- Only 60 samples were used i.e. 30 for experimental group and 30 for control group.
- The study was limited only to antenatal mothers who are all attending the antenatal OPD in selected hospitals in Kurnool.
- The study was limited for the assessment of the knowledge and practice regarding TORCH infection.

#### MATERIALS AND METHODS

##### RESEARCH APPROACH

The Educative and Evaluative approach

##### RESEARCH DESIGN

True experimental pre test post test only design

##### VARIABLES

##### Independent variable

- Structured teaching programme on TORCH infection.

##### Dependent variable

- Knowledge of mother's on TORCH infection.

##### Extraneous variable

- The extraneous variables are the interest, health condition, fetal condition, environment of mother's in learning during teaching.

##### SETTING OF THE STUDY

Setting was Government hospital (GH) in Kurnool, AP.

##### POPULATION

All Mothers who are attending antenatal visit and hospitalization.

##### SAMPLE

Antenatal mothers in selected hospitals Kurnoolr, A.P

##### SAMPLE SIZE

The sample uses for this study is 60 antenatal mothers. 30 were experimental group and another 30 were control group

##### SAMPLING TECHNIQUE

Simple Random sampling technique in that Lottery method was done.

**CRITERIA FOR SAMPLE SELECTION**

**Inclusion criteria; Antenatal mothers;**

- Who are in 1st, 2nd, 3rd, trimester.
- Who are primigravida, multigravida, elderly primi, grand multi Para mothers.
- Who are attending antenatal visit and hospitalization.
- Who are given consent.
- Who are willing to participate and present during the period of data collection.
- Who can understand English or Tamil.

**Exclusion criteria;**

- Who are undergone any training programme or health information.
- Who are taking any steroid drugs.
- Who are having any complication like pregnancy induced hypertension, diabetes, HIV etc.,

**DESCRIPTION AND DEVELOPMENT OF THE TOOL**

The data collection instrument was developed after having consultation with the experts in the concerned topic and after reviewing the various literatures and research studies.

Self administered questionnaire was prepared in the form of open ended questionnaire. The instrument consisted of two parts.

- **Section A; mother’s profile (demographic data);** It includes the variables including name, age, religion, educational status, dietary pattern, no of pregnancy, previous knowledge regarding TORCH infection among antenatal mother’s and mark percentage.
- **Section B; Knowledge Regarding TORCH infection;** It consists of 37 multiple choices Question related to TORCH infection, Toxoplasmosis, Rubella, Cytomegalovirus, Herpes simplex virus, other viral infections.

**RESULTS AND DISCUSSION:**

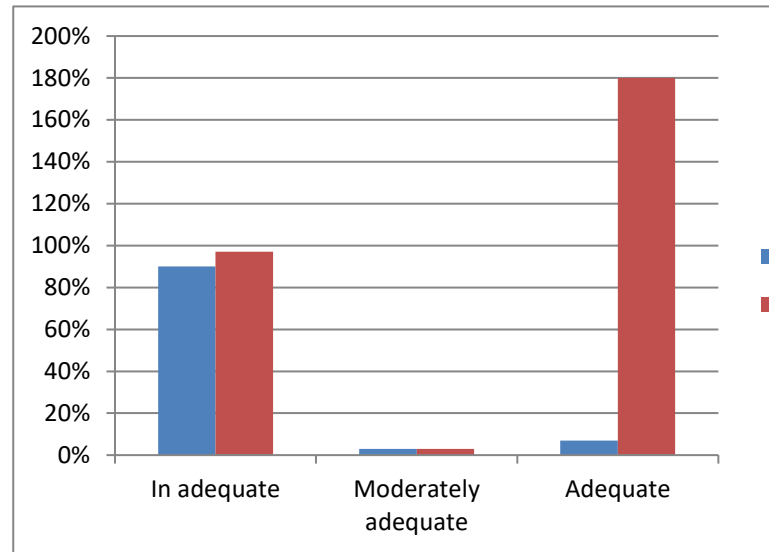
- Over all pre test percentage of level of knowledge regarding prevention of torch infection among antenatal mothers in experimental and control group.

**Table 1: it shows level of pre test knowledge score in both experimental and control group. N=60**

S.NO	Level of knowledge Percentage	Experimental		Control	
		n	%	n	%
1.	Inadequate	27	90%	29	97%
2.	Moderately adequate	1	3%	1	3%
3.	Adequate	2	7%	0	0%

In experimental group 90% of mothers had inadequate knowledge 3% of mothers had moderately adequate knowledge, and 7% of mothers had adequate knowledge. In control group 97% of mothers had inadequate

knowledge 3% of the mothers had moderately adequate knowledge, and 0% of the mothers had adequate knowledge.



**Figure 1: It shows pre test level of knowledge score in both experimental and control group**

- Overall post test percentage of prevention of torch infection among antenatal mothers in experimental and control group.

**Table 2: It shows level of post test knowledge score in both experimental and control group. N=60**

S.No	Level of knowledge	Experimental		n
		N	%	
1.	Inadeque	2	7%	29
2.	Moderately adequate	4	13%	1
3.	Adequate	24	80%	0

In experimental group 7% of mothers had in adequate knowledge, 13% of mothers had moderately adequate knowledge, and 80% of mothers had adequate knowledge. In control group 97% of mothers had in adequate knowledge 3% of mothers had moderately adequate knowledge and 0% of mothers had adequate knowledge.

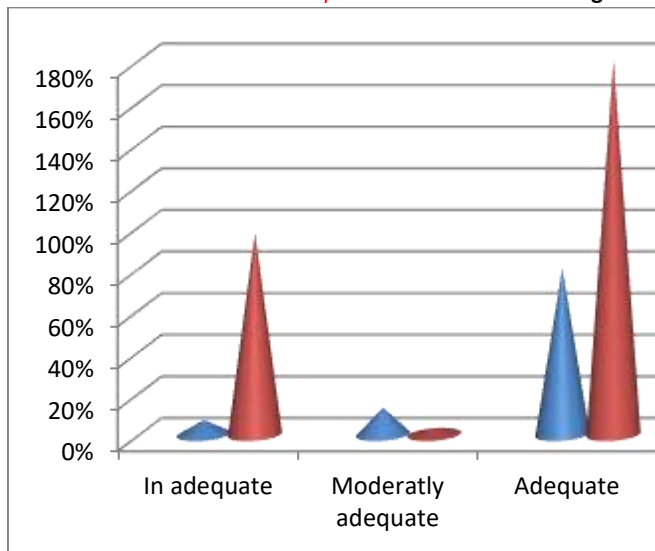


Figure 2: It shows post test level of knowledge score in both experimental and control group

➤ Over all comparison of mean score between pre test and post test level of knowledge regarding prevention of torch infection among antenatal mothers in experimental group and control group.

Table 3: It shows comparison of mean score between pre test and post test level of knowledge in both experimental and control group. N=60

S.No	Components	Observation	Mean	Mean difference	SD	t value	Significant
1.	Level of knowledge	Experimental	34.17	30.38	5.09	532.25	Significant
		Control	3.79				

**CONCLUSION:-**

From the findings of the present study it is concluded that the level of knowledge regarding of TORCH infection among antenatal mothers during pregnancy. Antenatal mother had inadequate knowledge among the experimental and control group during the pre-test assessment. The findings of the post test in the experimental group the level of the knowledge improved and the score has indicated an adequate. Where as in control group no improvements and in experimental group mothers had improvements in the level of knowledge due to the administration of the structured program. Therefore the knowledge of the mother can be further improved by providing ongoing teaching and training programs.

**RECOMMENDATION:-**

- Based on the findings of the present study the following recommendations are made.
- Flash card method should be used widely knowledge on practice.
- Study can be done to assess the knowledge regarding prevention of TORCH infection.

- Similar study can be done for including the practice
- A Quasi experimental study can be conducted to assess the effectiveness of structure teaching programme among antenatal mothers.
- Mothers with low grade should motivate assisted to gain knowledge better.
- Similar study can be conducted using experimental research design.
- Similar study can be conducted among the antenatal mothers.
- A follow up study can be conducted to evaluate the effectiveness of structured teaching programme on practice.

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