

## Awareness on Complications of Fever in Early Pregnancy

Sita VK<sup>1</sup>, N Hephzibah Kirubamani<sup>2</sup>

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<sup>1,2</sup>nd Yrs M.B.B.S, Department Obstetrics and Gynecology, Saveetha Medical College Hostapil, Kuthambakkam, Chennai, Tamil Nadu 600077, India.

**Corresponding Author:** Sita VK, <sup>2</sup>nd Yrs M.B.B.S, Department Obstetrics and Gynecology, Saveetha Medical College Hostapil, Kuthambakkam, Chennai, Tamil Nadu 600077, India.

E-mail: [sitakalyan97@gmail.com](mailto:sitakalyan97@gmail.com)

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### Abstract

**Background:** Fever is the most common way of presenting any type of infections, which when left without appropriate treatment can result in adverse foetal as well as maternal outcomes. Fever can easily be presented during pregnancy time because of low immunity levels, so proper guidelines have to be given about the management of fever. It is therefore important to assess the levels of awareness in our communities.

**Methods:** A cross sectional questionnaire-based interview was conducted among 100 pregnant women in early pregnancy who attended outpatient department of obstetric and gynecology department of saveetha medical college, chennai. The study was conducted after ethical clearance and after informed consent to assess the awareness about fever during early pregnancy.

**Result:** Overall results showed insufficient knowledge and awareness about the complications of fever in early trimester.

Most of the antenatal mothers 16% had satisfactory awareness, 80% had poor awareness, and 4% had good awareness about fever during pregnancy.

Out of the 80% of the antenatal women who had poor awareness about complications of fever during pregnancy, 75% belonged to lower socioeconomic class and the remaining 5% belonged to middle class. Out of the 16% of the antenatal women who had Satisfactory awareness about complications of fever during pregnancy, 15% belonged to middle class and the remaining 1% belonged to upper socioeconomic class. Out of 4% of the antenatal women who had

good awareness about complications of fever during pregnancy, 4% belonged to upper socioeconomic class.

Out of 80% of the antenatal women who had poor awareness about complications of fever during pregnancy, 25% had no formal education, 30% had completed their primary school education and the remaining 25% had completed their high school education. Out of 16% of the antenatal women who had satisfactory awareness about complications of fever during pregnancy, 10% had completed their high school education and the remaining 6% were graduates. Out of 4% of the antenatal women who had good awareness about fever during pregnancy, 3% professionals and the remaining 1% were degree holders.

**Conclusion:** Our participants did not have ample knowledge and awareness about the complications. Hence awareness programmes need to be implemented in the low socio-economic. This will decrease complications of fever during pregnancy.

**Keywords:** Fever; Pregnancy; Congenital anomalies.

### Introduction

The possibility of a teratogenic effect of fever was first postulated by researchers conducting ecologic studies of influenza and birth defects.<sup>1</sup> First trimester fever can increase baby's risk of developing a congenital heart disease and certain facial deformities such as cleft lip or cleft palate.<sup>2</sup> The body can be extremely vulnerable during pregnancy as your hormones go through an imbalance and your immune system is weak. One

of the most common conditions that pregnant women face include fever. Fever can lead to severe weakness, chills, and with inclusion of a running nose or cold.

The fever can be caused due to numerous reasons like:

- viral infection
- a bacterial infection
- weakened immune system
- foreign entitis in the body
- severe pain
- change in body composition

During pregnancy several other conditions could cause a fever, some of these are:

- urinary tract infections
- influenza
- upper respiratory tract infections
- dengue and enteric fever

Types of fever that can affect the pregnant women are dengue fever,

A fever during pregnancy can mostly be harmless. It is however recommended that fever during pregnancy be monitored, because if left unmonitored and not treated appropriately, could

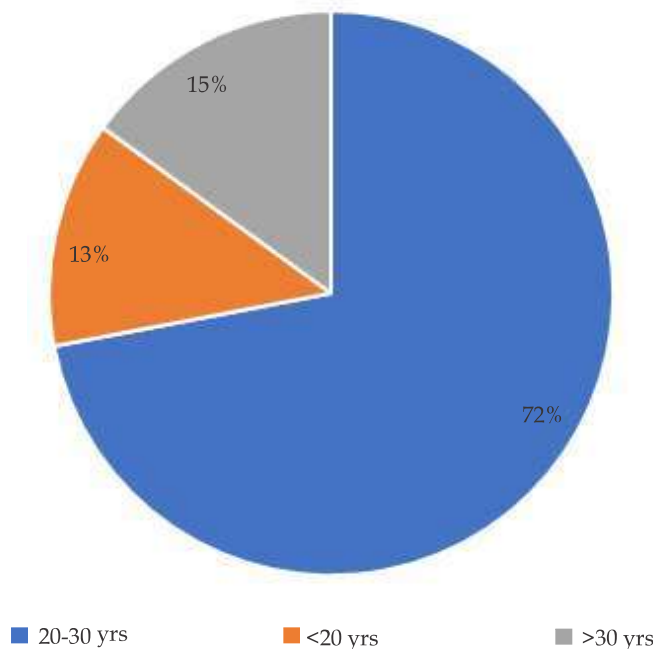
prove to be fatal to the foetus.<sup>3</sup> The main aim of this study is to bring awareness among pregnant ladies about the foetal complications that could be caused by fever during first trimester. This awareness study becomes important so that pregnant women can report early to seek medical advice.

**Materials and method** This study was conducted among the pregnant ladies attending the outpatient department of obstetrics and gynaecology department of Saveetha medical college Chennai. After ethical clearance a total of 100 patients were included in the study with their prior consent. The participants were assured that participation is voluntary and confidentiality would be maintained. The study was done by interviewing women with a semi structural questionnaire.

## Results

### Age

The study sample consisted of 100 antenatal mothers who belong to the age groups of 20 to 40. The mean age in this study out of 100 antenatal mothers, 72% of the women belong to age group of 20 to 30 years. Only 8% of women belong to age group below 20 years. The rest 20% of women are above 40 years of age (Fig. 1).



**Fig. 1:** Depicts the distribution of age in a pie chart.

**Distribution of Gravida**

Out of 100 pregnant women who participated in this study, 39% of the women were gravida 1 (primigravida). 52% of the women were gravida 2

(G2 p1), out of which 23% of women are (G2 p0 A1) wherein it is their second pregnancy and they have had an abortion before. 9% of women are gravida 3, in which 4% of women have 1 live birth and 1 abortion (G3 p1 A1) (Fig. 2).

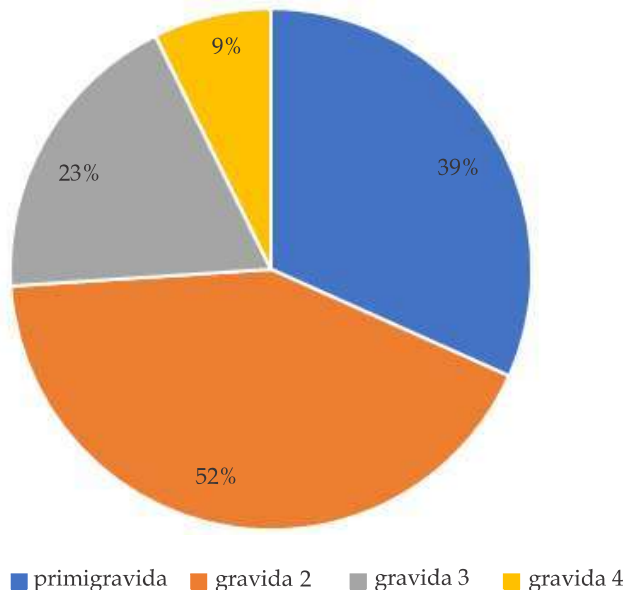


Fig. 2: Depicts the distribution of gravida in a pie chart.

**Socio Economic Class**

Among all 100 participants of the study, only 5% are from upper class. 20% of the participants were

from middle-class families. More than 70% of the participants were from lower class families. (REF: Kuppuswamy’s classification of socio-economic classes) (Fig. 3)

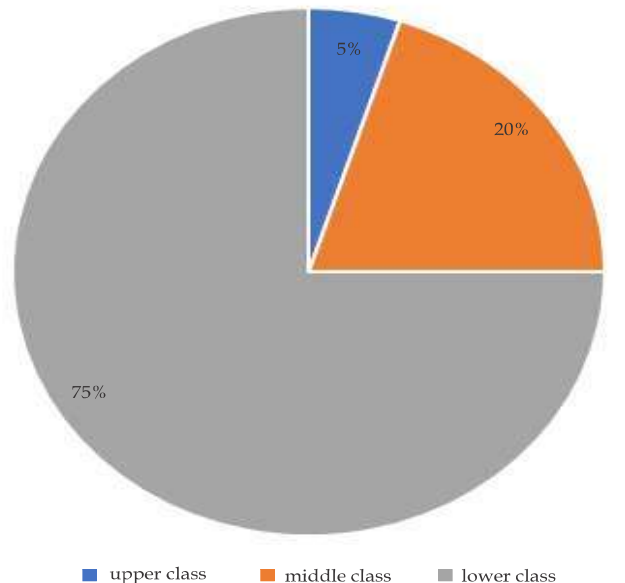


Fig. 3: Depicts the distribution of socioeconomic group in a pie chart.

**Education Status**

Among all the 100 participants of the study only 3 percent of the woman were professionals (score 7 according to modified kuppuswamy’s socioeconomic scale). Around 7% of women are

graduates or postgraduates who are not working. 35% of women have completed high school education. 30% of them have attended only primary school. Around 25% of the women who participated in the study had no formal education (Fig. 4).

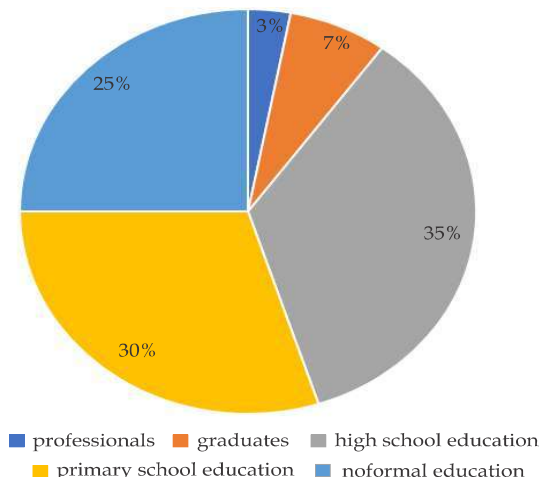


Fig. 4: Depicts the distribution of education status in a pie chart.

**Awareness**

Most of the antenatal mothers 16% had satisfactory awareness, 80% had poor awareness, and 4% had good awareness about fever during pregnancy (Fig, 5).

**Practice**

Majority of antenatal mothers (95%) opted to visit the doctor when found to have fever.

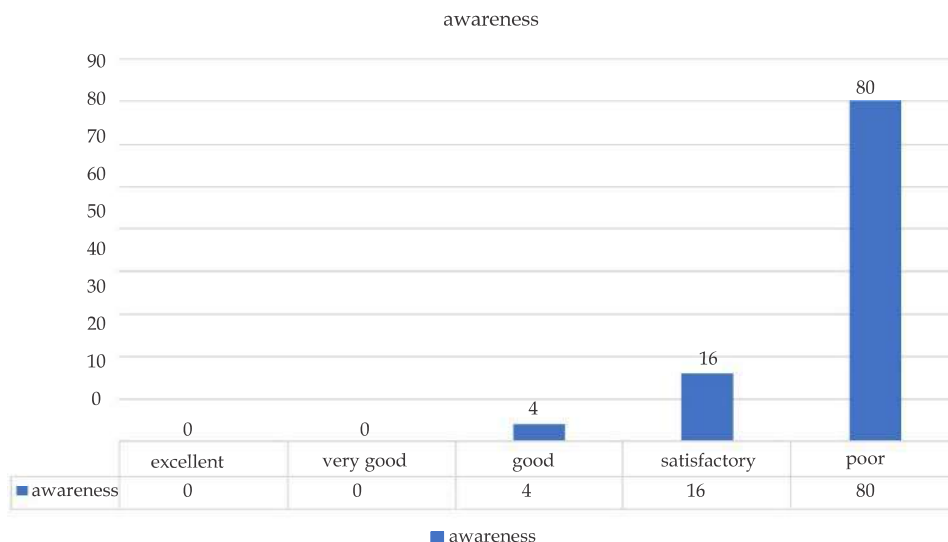


Fig. 5: Depicts the distribution of awareness among 100 in a bar graph.

**Corelate Awareness with Socioeconomic Status**

Out of the 80% of the antenatal women who had poor awareness about complications of fever during pregnancy, 75% belonged to lower socioeconomic class and the remaining 5% belonged to middle class.

Out of the 16% of the antenatal women who had Satisfactory awareness about complications of fever during pregnancy, 15% belonged to middle class and the remaining 1% belonged to upper socioeconomic class (Fig. 6 and Table 1).

Out of 4% of the antenatal women who had good awareness about complications of fever during pregnancy, 4% belonged to upper socioeconomic class.

Out of the 100 women who participated in the study nobody had very good or excellent awareness about complications of fever during pregnancy.

Table 1:

Socioeconomic knowledge	Upper class	Middle class	Lower class	Total
Poor	0%	5%	75%	80%
Satisfactory	1%	15%	0%	16%
Good	4%	0%	0%	4%
Very good	0%	0%	0%	0%
Excellent	0%	0%	0%	0%
<b>Total</b>	<b>5%</b>	<b>20%</b>	<b>75%</b>	<b>100%</b>

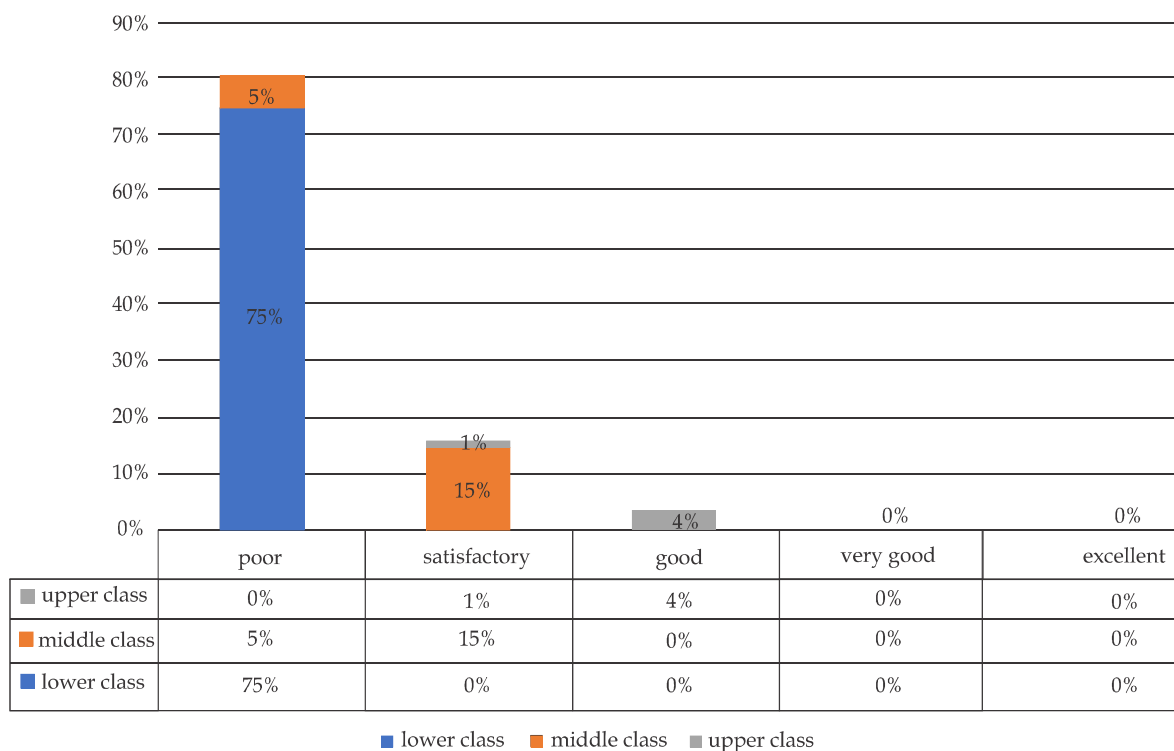


Fig. 6: Depicts Correlation of awareness with socioeconomic status in a bar graph.

**Corelate Awareness with Education**

Out of 80% of the antenatal women who had poor awareness about complications of fever during pregnancy, 25% had no formal education, 30% had completed their primary school education and the remaining 25% had completed their high school education.

Out of 16% of the antenatal women who

had satisfactory awareness about complications of fever during pregnancy, 10% had completed their high school education and the remaining 6% were graduates.

Out of 4% of the antenatal women who had good awareness about fever during pregnancy, 3% professionals and the remaining 1% were degree holders (Fig. 7 and Table 2).

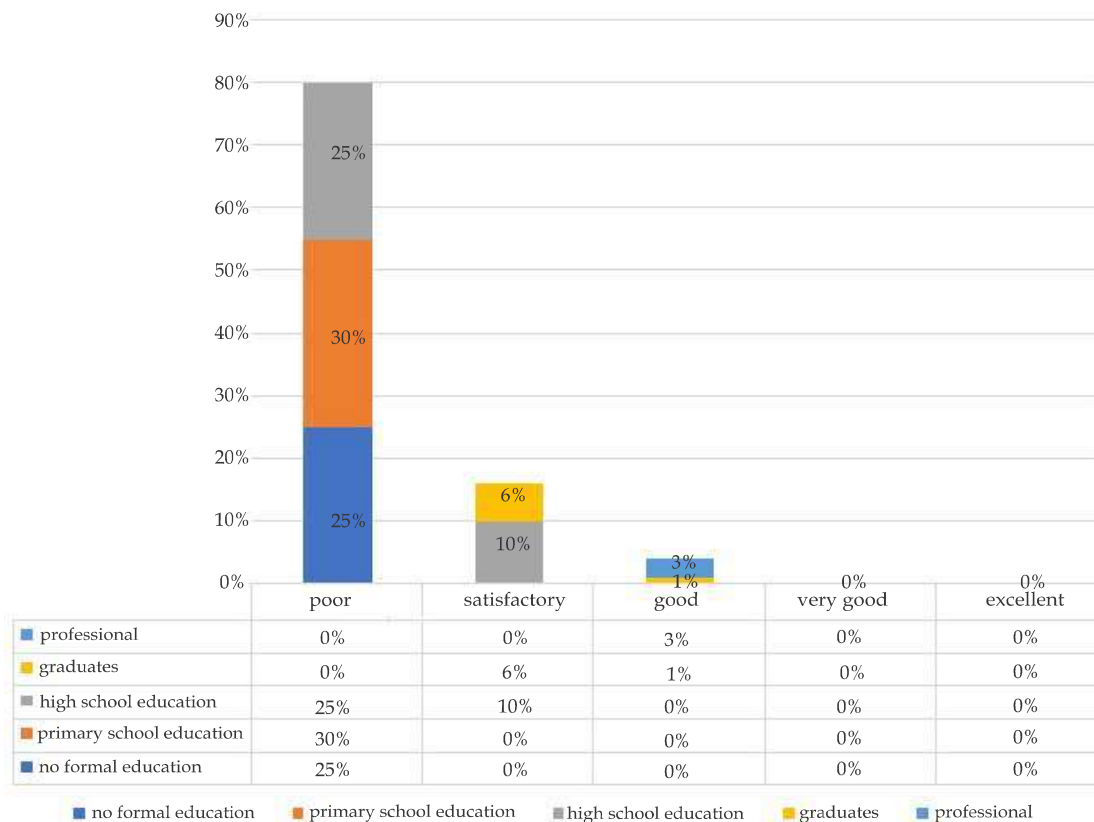


Fig. 7: Depicts Correlation of awareness with education in a bar graph.

Table 2:

Socioeconomic knowledge	Professionals	Graduates	High school education	primary school education	No formal education	Total
Poor	0%	0%	25%	30%	25%	80%
Satisfactory	0%	6%	1%	0%	0%	7%
Good	3%	10%	0%	0%	0%	13%
Very good	0%	0%	0%	0%	0%	0%
Excellent	0%	0%	0%	0%	0%	0%
<b>Total</b>	<b>3%</b>	<b>16%</b>	<b>26%</b>	<b>30%</b>	<b>25%</b>	<b>100%</b>

## Discussion

Fever is a defence mechanism against any infection in the body. Maternal fever is not uncommon during pregnancy,<sup>4</sup> but if not given proper medical attention especially fevers in first trimester it affects the health of both mother as well as foetus and results in morbidity and mortality of the foetus as well as mother. Out of all defects, hyperthermia during pregnancy can be of high risk to central nervous system as it may not be able to compensate loss of neurons in addition to division of surviving neuroblast.<sup>5</sup> Pregnancy is a time when immunity levels are low thus increasing the chances of any

types of infection to prevail.<sup>6</sup> All the women who were included in the study were from low socio-economic groups which makes them more prone to such endemic fevers and awareness is a must to them. The main focus of the study was to improve the awareness among pregnant women about complications of fever in early trimester.

## Conclusion

In this study enough knowledge and awareness about the complications of fever in early trimester is less. The main implications of the study were to emphasise the need to spread awareness among

pregnant women about the complications of fever during pregnancy to the foetus as well as mother. Awareness programmes can be conducted in rural areas where the socio-economic status is low, thus increasing the awareness and hence reducing the infant mortality rate.

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