



## SOCIOECONOMIC AND HEALTH STATUS OF PREGNANT DIABETIC WOMEN

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### ABSTRACT:

The study evaluates socio-economic status of pregnant diabetic women and assessed health status of these women. A survey method was followed for collecting data. The data was collected through well-structured interview schedule from randomly selected 500 pregnant diabetic women in Nagpur city of Vidarbha Region in Maharashtra state. Study concluded that diabetes during pregnancy is evident in all socioeconomic strata of society, furthermore, pregnant women with diabetes shows poor health status. They generally exhibit high blood pressure (systolic  $192.2 \pm 24.36$  mm/Hg and diastolic  $112.4 \pm 9.37$  mm/Hg), low hemoglobin percentage ( $9.6 \pm 3.4$  gm%). They exhibit health related multiple problems among which constipation, fatigue and bleeding were most common health problems. Study suggested that diabetic pregnant women should perform exercises recommended by doctors on regular basis, should take medicines only as recommended by the doctor for the physical trouble and should undergo regular health checkups.

**Key words :-** Pregnant Diabetic Women, Socioeconomic Status, Health Status.

### INTRODUCTION:

Diabetes is a chronic disease that occurs either, when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin, it produces. In 2014, 8.5% of adults aged 18 years and older had diabetes. In 2016, diabetes was the direct cause of 1.6 million deaths and in 2012 high blood glucose was the cause of another 2.2 million deaths (WHO; 2018).

The burden of diabetes is increasing rapidly in India. Diabetes contributed to 3.1% of all deaths in India, with an increase in both crude (131%) and age standardized (64%) death rates due to diabetes from 1990 to 2016 (India State-Level Disease Burden Initiative Diabetes Collaborators, 2018). India has an estimated 62 million people with Type 2 diabetes mellitus (DM); this number is expected to go up to 79.4 million by 2025 (Anjali *et al.*, 2011).

Diabetes in pregnancy is associated with risks to the woman and to the developing foetus. Miscarriage, pre-eclampsia and preterm labour are more common in women with pre-existing diabetes. In addition, diabetic retinopathy can worsen rapidly during pregnancy. Stillbirth, congenital malformations, macrosomia, birth injury, perinatal mortality and postnatal adaptation problems (such as hypoglycaemia) are more common in babies born to women with pre-existing diabetes.

Burks *et al.*, (2017) evaluated the independent associations of maternal income and education with select measures of gestational diabetes mellitus (GDM) management. This exploratory study demonstrates notable socioeconomic differences in select measures of GDM management. Retnakaran and Shah (2017) compared women who have gestational diabetes mellitus (GDM) have elevated lifetime risks for the development of type 2 diabetes mellitus (T2DM) and cardiovascular disease (CVD), with their peers. Women with GDM have an elevated risk of cardiovascular outcomes, even in the absence of T2DM. In contrast, microvascular risk emerges only in those in whom T2DM develops.

Different studies established relation among various diseases such as cardiovascular (Rose and Marmot, 1981), coronary heart diseases (Matthews *et al.*, 1989) etc. and socio-economic status of the patients. Following this trend present study evaluates socio-economic status of pregnant diabetic women and identify health status of these women.

### Objectives:

- To study the socioeconomic status (SES) of pregnant diabetic women
- To collect information regarding health problems of pregnant diabetic women.

**MATERIAL AND METHODS :-**

A Survey method was followed for collecting data. The data was collected through well structured interview schedule from randomly selected 500 pregnant diabetic women in Nagpur city of Vidarbha Region in Maharashtra state. Interview schedule contain questions regarding general information, socio-economic status and health status of women. Collected data was analysed by using descriptive statistics. The confidence interval was considered as 0.05.

**OBSERVATION:****Table 1: 1 Information Related To Socio-Economic Status of Pregnant Diabetic Women**

Approximate Monthly Income	Number	Percent
Less than Rs. 10000	37	7.4
Rs. 10000 to 20000	45	9.0
Rs. 20001 to 30000	114	22.8
Rs. 30001 to 40000	138	27.6
More than Rs. 40000	166	33.2
<b>Total</b>	<b>500</b>	<b>100</b>
Educational Status	Number	Percent
Higher Secondary	55	11.0
Graduate	289	57.8
Postgraduate	156	31.2
<b>Total</b>	<b>500</b>	<b>100</b>
Occupation	Number	Percent
Housewife	326	65.2
Employed	174	34.8
<b>Total</b>	<b>500</b>	<b>100</b>
Type of Family	Number	Percent
Joint	245	49.0
Nuclear	255	51.0
<b>Total</b>	<b>500</b>	<b>100</b>
No. of Family Members	Number	Percent
Less than 4	91	18.2
4 to 6	315	63.0
7 to 9	68	13.6
More than 9	26	5.2
<b>Total</b>	<b>500</b>	<b>100</b>

Above Table 1 illustrates general information of pregnant diabetic women in Nagpur city. It is apparent from the results in Table 1 that 50.4% pregnant diabetic women belong to average economic status, whereas 33.2% women belong to high economic status.

In addition to this, percentage of pregnant diabetic women belonging to low economic status is 16.4%.

Furthermore, 57.8% pregnant diabetic women were graduate, whereas percentage of pregnant diabetic women educated up to postgraduate and higher secondary level was 31.2% and 11.0% respectively. In addition to this, 62.5% pregnant diabetic women were housewife, whereas 37.5% pregnant diabetic women were employed.

Moreover, 51.0% pregnant diabetic women belong to nuclear family type, whereas 49.0% pregnant diabetic women belong to joint family type. 63.0% pregnant diabetic women had 4 to 6 members in their family.

It is evident from above result that majority of pregnant diabetic women in Nagpur city belong to average socioeconomic status. The result also implies that diabetes during pregnancy is prevalent in all socioeconomic groups.

**Table 2: Health problems of pregnant diabetic women in Nagpur City.**

Health problems	Number	Percentage
Morning Sickness	265	53.0
Vomitting	203	40.6
Vertigo	183	36.6
Anorexia	87	17.4
Fatigue	307	61.4
Swelling on Body	123	24.6
Constipation	371	74.2
Bleeding	303	60.6
High Blood Pressure	317	63.4
Low Hemoglobin	359	71.8

Above Table 2 demonstrates information pertaining to health problems faced by pregnant diabetic women in Nagpur city. It is apparent from the information that 74.2% pregnant diabetic women suffering from constipation, whereas 71.8% women were suffering from low hemoglobin. Furthermore, 63.4% women were suffering from high blood pressure whereas 61.4% women were suffering from fatigue. In addition to this 60.6% women suffering from bleeding. Moreover, percentage of pregnant diabetic women suffering from morning sickness, vomiting, vertigo, swelling on body and anorexia was 53.0%, 40.6%, 36.6%, 24.6% and 17.4% respectively.

The result indicate that pregnant diabetic women were suffering from multiple health problems which include morning sickness,

vomiting, vertigo, anorexia, fatigue, swelling on body, constipation and bleeding; however significant percentage of pregnant diabetic women are suffering from health problems like constipation, low hemoglobin, high blood pressure, fatigue and bleeding.

#### **Conclusion:**

Diabetes was evident more in developed nation in the beginning; however, its rate is also increasing in underdeveloped countries like India. Mother and fetus are at risk in diabetes during pregnancy. Once diagnosed with diabetes, it is necessary to take immediate treatment for it. Diabetes during pregnancy is controlled through medication.

In this study, socioeconomic status and health problems of pregnant diabetic women were evaluated. It is evident from the study result that diabetes during pregnancy evident in all socioeconomic strata of society, furthermore, pregnant women with diabetes shows poor health status they generally exhibit high blood pressure, low hemoglobin percentage. They exhibit health related multiple problems among which constipation, fatigue and bleeding are most common health problems.

Study suggested that diabetic pregnant women should perform exercises recommended by doctors on regular basis, should take medicines only as recommended by the doctor for the physical trouble and should undergo regular health checkups.

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