Original Article

Morbidity profile of women during pregnancy: A hospital record based study in western UP.

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Abstract

Objective: To study the morbidity pattern and relationship of these morbidities with socio-economic and demographic factors.

Material and method: Present study was conducted at the Saraswathi Institute of Medical Sciences,Hapur,(U.P.) among pregnant patients during the study period of one year. Data were analyzed using SPSS 16, using tabulation with percentage and Pearson's chi-square test was used for testing the crude associations.

Results: In the present study a total of 338 pregnant women were included for the study material, out of which 67.46% of the antenatal women reported illness during antenatal period and majority 277(81.95%) of the pregnant women were anemic.Thecommon non-obstetric morbidities reported were gastrointestinal disorder (24.68%), genital tuberculosis (16.88%), renal & gall bladder disease (7.79%) and congenital anomaly (6.49%) ect. (ii) The obstetric morbidities included were pre-eclampsia(14.56%), urinary tract infection(9.71%), rupture of membrane(8.74%),hyperemesis gravidarum(9.22%)and abnormal presentation in (2.43%)patients .

Conclusion: Maternal morbidity is notably high, although most of the common problems were not life-threatening. They are more likely to have marked influence on their wellbeing and health status in the long run. Most conditions could be addressed through provision of health promotion and preventive interventions.

Key words: Maternal complications, morbidity profile, chi square test.

Introduction:

The detection of high-risk pregnancies through antenatal care has been advocated as a good tool to reduce maternal mortality (in some cases by 60%) in developing countries[1,2]. It has been calculated that for every dollar spent on antenatal care for high-risk women, more than three dollars are saved (compared to managing complications arising from pregnancy)[3]. An estimated 15% of pregnant women in developing countries experience pregnancy-related complications and nearly 530,000 women worldwide die annually from pregnancy-related conditions[4,5]. In developing countries, interventions that are known to be effective in reducing maternal and perinatal mortality and morbidity are not universally provided.

Reproductive morbidity refers to the morbidity or dysfunction of the reproductive tract, or any morbidity, which is a consequence of reproductive behavior including pregnancy, abortion, childbirth or sexual behavior. Reproductive morbidity includes obstetric morbidity and it refers to ill health in relation to pregnancy and childbirth. Obstetric morbidity is one of the major causes for maternal death.

Obstetric morbidity is defined as "morbidity in a woman who has been pregnant (regardless of site or duration of the pregnancy) resulting from any cause related to or aggravate by the pregnancy or its management but not from accidental or incidental causes"[6].

Life-threatening morbidity during pregnancy is swelling of hands and feet, paleness, vaginal bleeding, hypertension and convulsions etc.

Indian women suffer from various reproductive health problems and more than one lakh women die in India annually for reasons related to pregnancy, abortion accounts for 12.3 percent of all maternal deaths in India (RGI, 1993). Obstetric Morbidity is very high among currently married women in India because cultural norms and values promote early marriage of women in some states.

The rural women, who are under-nourished and have early pregnancy along with her malnourishment, would enhance the risk of hazardous pregnancy outcomes.

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The available evidence regarding the level of obstetric morbidity is not comprehensive enough to give an accurate picture of India in current scenario. The National Population Policy adopted by Government of India in 2000 (MOHFW) reiterates the government's commitments to safe motherhood programme within wider context of reproductive health.

Broadly, the present study attempts to understand the levels of obstetric morbidity during pregnancy and the relationship of these morbidities with socio-economic and demographic factors.

Material and Methods:

The present study was conducted at the Saraswathi Institute of Medical Sciences (SIMS) Hapur (U.P.) among both IPD & OPD patients reported to hospital during a study period of Oct 2009 –Sept 2010. The study area is situated around urban, semi urban and rural area. The material for this study comprised pregnant women reported in obstetrics and gynecology department.

All women who were pregnant at the start of the study and who became pregnant during the study period were enrolled.

Type of study is record-based and data was collected from the records of Medical Records Section. The type of morbidity was recorded as reported in the case sheets of patients by the specialists and patients with incomplete records were excluded from the study.

A total of 410 patients were reported to the S.I.M.S hospital, Hapur during the study period in which 338 (82.44%) patients were included for study. A detailed history, demographic data, ANC visit, morbidity and complication of pregnancy was recorded for the purpose of drawing inferences of the present study. As a general check-up, the diseases present in the patient were also recorded.

The information thus collected on computer based spread sheet using SPSS software. Frequency distributions, cross-tabulation were used to examine the level of obstetric morbidity. Pearson's chi-square test was used for testing the crude associations between anemia and the residence of patients.

Results: In the present study, a total of 338 pregnant women were included for the study material.

Table1. Socio-demographic Characteristics of ANC cases (n=338)

Group	Subgroup	Number	Percentage
Age	17-19	14	4.2
	20-29	237	70.1
	30-34	53	15.7
	>35	34	10.0
Residence	Urban	129	38.2
	Rural	209	61.8
Trimester	1st	121	35.8
	2nd	49	14.5
	3rd	168	49.7

As shown in table 1, 237(70.1%) patients were between 20-29 years, 53(15.7%) between 30-34 years and only 34 (10.0%) were above 35 years. 209(61.8%) patients were belong to rural area. Further, when antenatal visits due to one or more problems were analyzed according to trimesters, it was noted that during pregnancy, 168(49.7%) women made maximum number of visits during 3rd trimester.

Table2: Women suffering from types of Ante-partum Morbidities

	Type of Morbidity	No of patients	Percentage
Obstetric	Vaginal bleeding/abortion	65	31.55
	Pre-eclampsia/hypertension	30	14.56
	UTI/Others infection	20	9.71
	Hyper emesis Gravid arum	19	9.22
	Rupture of membrane	18	8.74
	Intra-uterine death	13	6.28
	Ectopic pregnancy	6	2.90
	Abnormal presentation	5	2.43
	Others obstetric problems	18	8.73
	MR*	12	5.82
Non-obstetric	Gastro-intestinal disorders	19	24.68
	Genital tuberculosis	13	16.88
	Congenital problem	05	6.49
	Renal & gall bladder diseases	06	7.79
	Others	19	24.68
	MR*	15	19.48

*multiple response

Based upon the reported symptoms an obstetric and non-obstetric complication was identified and shown in table 2.Altogether, 228 (67.46%) women experienced these problems during pregnancy.

In the table 2, percentage of obstetric/non obstetric problems are shown individually. For obstetric problem visits to the hospital during pregnancy by 65 (31.55%) women, were for vaginal bleeding or threatened abortion. 30 (14.56%) women were treated for pre-eclampsia / hypertension, 18(8.73%) patients were treated for others obstetrical problems like post term pregnancy, IUGR, twins and preterm labour and 12(5.82%) were reported to have at least more than one health problem related directly to their pregnancy.

For non-obstetric problems, the important morbidity reported were gastro-intestinal disorders in19 (24.68%), genital tuberculosis in 13(16.88%), congenital problem like incompetent os and contracted pelvis 5(6.49%) & others morbidities were present in 19(24.68%) pregnant mothers which include thyroid,PID,Rh-ve,renal stones ,dextrocardia, depression etc.

Fig1: Patients reporting an illness or health problems during antenatal period.

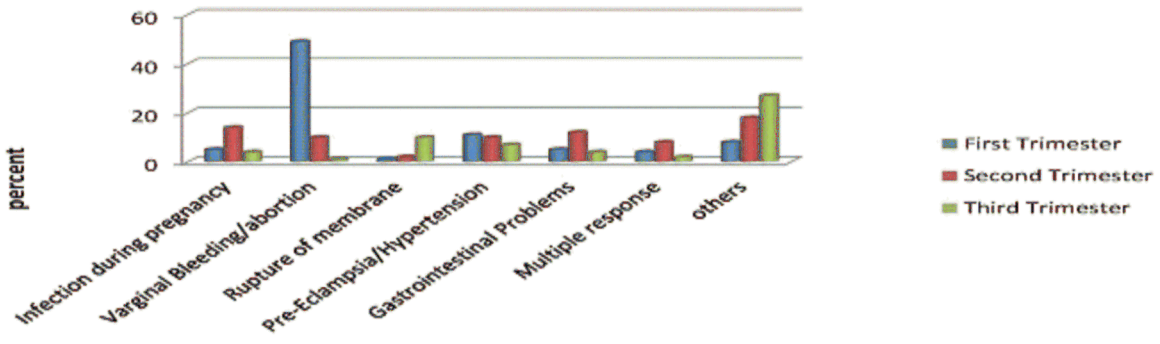

Fig1. Depicts the levels of different types of obstetric morbidity at the time of 1st, 2nd and 3rd trimester .Vaginal bleeding /abortion were reported maximum during 1st trimesters. While others problems like post term pregnancy, IUGR, twins and preterm labor were reported maximum in third trimester.

Table3: Distribution Of Patients According to their Residence and Anemia

Status of Anemia	Urban (%)	Rural (%)	Total
Non-anemic	22(36.1)	39(63.9)	61(100.0)
Anemic	107(38.6)	170(61.4)	277(100)
Total	129(38.2)	209(61.8)	338(100)

$\chi^2 = 0.03$, d.f.=1, $p > 0.05$

It was noted that majority 277 (81.95%) of the pregnant women were anemic. As far as the association between women's and anaemia is concerned percentage (61.4%) of pregnant women having anemia belong to rural area which is not statistically significant.

Discussion:

There are many studies on the prevalence and determinants of maternal mortality but precious little work has been done on similar lines on maternal morbidity. The main reason for this anomaly is the lack of adequate and precise information on obstetric morbidity and the underlying obstetric diagnosis is likely to have been misreported.

The use of self-reporting of obstetric illnesses and their management to measure the burden of obstetric complications in the population and the unmet need of obstetric care is relatively uncommon. During pregnancy timely medical advice for illness can minimize the ill effects to the mother and the fetus.

In this study there were 338 pregnant mothers in which 237(70.1 %) women were in the age group 20-29 years. The attendance is more in this group because there was a history of previous bad pregnancy experience and they were aware of health facility. Similar findings have been reported in other studies[7,8].

Most of the cases were booked in the 3rd trimester, followed by 1st trimester and least was booked as early as 2nd trimester .This trends are seen in those women who had a high–risk pregnancy. They are only worried about the delivery and they only attend ANC when they are symptomatic. Our study corroborated this, with most of the first visits being in the third trimester[9].

The present study estimated that 228 (67.46%) of the pregnant women experienced one or more episodes of the health problems during the study this findings being similar to those of other studies[10].

In the present study overall prevalence of UTI in pregnant women was 9.71%.Our finding is similar with the other study[11].

Hypertension was detected in 30(14.56%) women. This complicates 7-10% of pregnancies[12].The disease is a symptomatic initially and if detected early one can prevent eclampsia, IUGR and other complications .Eclampsia is responsible for 12% of maternal deaths[13].

The important morbidity reported were gastro-intestinal problem in19 (24.68%)[14]. The prevalence of anemia among pregnant women in the present study was very (81.95%), although similar to other study[15].

It may be exacerbated by pregnancy and childbirth and current WHO recommendations for populations with a severe prevalence of anaemia giving women attending child health clinics haematinic supplements, which are highly effective in reducing anaemia and it may prevent anemia in subsequent pregnancies[16]. The association between women2 s residence and anemia has been documented. We have found a lower incidence in urban areas. Similar findings have been reported in other studies where the anemia among the rural women were high[17].

Although we have reason to believe that the populations in rural areas are different and have better healthy food as compared to urban area but their diet is not balanced.

This study has certain limitations like it may under-estimate the number of morbidities because in hospital antenatal women may have a higher proportion of problems which were not studied.

Conclusion:

The present study suggests that age, residence and trimester of patients, is important influencing factor on morbidity profile during pregnancy. During pregnancy, timely medical advice for illness can minimize the ill effects to the pregnant mother.

These stress the fact that morbidity during pregnancy is unacceptably high and constitutes a major public health problem, one that has remained larger un-addressed within current programmes.

In short, results present a forceful plea for greater attention to, and investment in, the health needs of poor Indian women. Especially for antenatal care need to be strengthened for the needs of the community.

Although most of the common problems women experienced were not life-threatening, they likely have marked influence on their wellbeing and health status in the long run.

A severe obstetric morbidity event significantly influences women's sexual health and wellbeing and increases health services utilization. Prevention and appropriate management of severe obstetric morbidity events may reduce these outcomes.

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