



CAN WE REDUCE MATERNAL MORTALITY?

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INTRODUCTION

Death of women in childbirth is a tragedy. Maternal mortality is death of women during pregnancy or within 42 days of termination of pregnancy from a cause related to or aggravated by pregnancy or its management but not from accident or incidental cause. Each year, more than half a million deaths are reported worldwide and majority of these deaths occurring in developing countries¹. Women in countries with higher fertility and high maternal mortality run the highest life time risk of deaths. It is as high as 1 in 16 in Sub Saharan Africa and 1 in 65 in Asia as compared to Europe with 1 in 2000. In North America it is as low as 1 in 3500². According to WHO & UNICEF estimates, maternal mortality rate of Pakistan is around 340/100,000 live birth³. According to preliminary results from demographic maternal mortality rate is 276/100,000 live births⁴. Globally and in Pakistan the major cause of maternal mortality are hemorrhage, hypertensive disorders, sepsis,

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ABSTRACT... Objective: The objective of this study is to find out the maternal mortality rate in our setup and found the preventable causes of maternal mortality rate. **Design:** Descriptive study. **Place and duration of study:** In obstetric ward of Liaquat university hospital Hyderabad from 10th Feb 2011 to 10th Jan 2014. **Patients and Methods:** All the women who were died due to pregnancy complications were included in the study while women who were not died due to pregnancy complications and maternal deaths due to accidental or incidental causes during pregnancy were excluded from the study. Details of patient's history especially age, parity, socioeconomic condition, reason of death, antenatal status, and distance from hospital were recorded on predesigned proforma. **Results:** Total 48563 deliveries were conducted during the study period. Out of these, 103 women died, so the maternal mortality rate was 212.09/ 100,000 live birth. Majority of women i.e. 43(41.74%) died; belong from age group of 31-40 years. Majority of women i.e. 78(75.72%) belonged to poor socioeconomic group and 83(80.58%) women had not received antenatal care. Most common cause of maternal mortality in this study was hypertensive disorder which was seen in 43(41.74%) followed by APH in 39(37.86%) and PPH seen in 6(5.82%) patients. The most common cause of delay in seeking health care facility was lack of transport reported by 43(41.74%) patients and familial taboos reported by 36(34.95%) patients. **Conclusions:** Most important cause of maternal mortality in our study was hypertensive disorders, APH and PPH. Maternal mortality was highest in advancing age, increased parity and in unbooked patients.

Key words: Maternal mortality, unbooked, antepartum hemorrhage.

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obstructed labour and unsafe abortions^{5,6}. Maternal health depends upon quality of health care system which is provided and majority of maternal deaths are preventable. Reduction of mm is an important MDG especially in low income countries, where one in 16 women die of pregnancy related complications⁷. We can only reduce the maternal mortality, by knowing its reason and making an effective policy. The objective of this study is to find out the preventable causes of maternal mortality rate.

PATIENTS AND METHODS

This descriptive observational study was conducted in the department of obs and gyne of liaquat university hospital Hyderabad from 10th Feb 2011 to 10th Jan 2014. All the women who were died due to pregnancy complications were included in the study while women who were not died due to pregnancy complications were excluded from the study. Details of patient's

history especially age, parity, socioeconomic condition, reason of death, antenatal status, and distance from hospital were recorded on predesigned proforma.

Maternal mortality is defined as death of women during pregnancy or within 42 days of termination of pregnancy from a cause related to or aggravated by pregnancy or its management but not from accidental or incidental causes. The maternal deaths due to accidental or incidental causes during pregnancy were excluded from the study. The maternal mortality rate was calculated by formula:

$$\frac{\text{Number of maternal deaths}}{\text{Total number of live births}} \times 100,000 = \text{MMR}$$

Multiparity was defined as women who delivered 2 or more children. Grand multiparity is defined as women who had delivered 4 or more children while great grand multiparity is defined as women who have delivered 10 or more children. Analysis was done on SPSS version 16.

RESULTS

Total 48563 deliveries were conducted during the study period. Out of these, 103 women died, so the maternal mortality rate was 212.09/ 100,000 live birth.

Majority of women i.e. 43(41.74%) died, belong from age group of 31-40 years, while 39(37.86%) women belonged to age group of 21-40 years. 31(30.09%) women were grand multipara while 36(34.95%) women were great grand multipara. Majority of women i.e. 78(75.72%) belonged to poor socioeconomic group and 83(80.58%) women had not received antenatal care (Table I).

Most common cause of maternal mortality rate in this study was hypertensive disorder which was seen in 43(41.74%) followed by APH in 39(37.86%) and PPH seen in 6(5.82%) patients (Table II).

The most common cause of delay in seeking health care facility was lack of transport reported

by 43(41.74%) patients and familial taboos reported by 36(34.95%) patients (Table III).

Variables	Frequency	%age
Age		
<20	6	5.82
20-30	39	37.86
31-40	43	41.56
>40	15	14.56
Parity		
Primipara	08	7.76
Multipara	28	27.18
Grand multipara	31	30.0
Great grand multi	36	34.95
Education		
Nil	89	86.40
Primary	08	7.76
Middle	06	5.82
Socioeconomic		
Condition poor	78	75.72
Middle	19	18.44
Upper	06	5.82
Booking status		
Booked	20	19.41
Unbooked	83	80.58

Table-I. Sociodemographic data of patients (n=103)

Causes	Frequency	%age
Eclamsia	43	41.74
APH	39	37.86
PPH	6	5.82
Rupture uterus	5	4.8
Anemia	4	3.88
Sepsis	3	2.91
Anesthesia complications	2	1.94
Unknown	1	0.97

Table-II. Causes of maternal mortality (n=103)

Causes	Frequency	%age
Lack of transport	43	41.74
Poverty	16	15.53
Familial taboos	36	34.95
Ignorance about health facility	8	7.76

Table-III. Causes of delay in relation to maternal mortality

DISCUSSION

As pregnancy is a natural phenomenon not a disease, and pregnancy related mortality can be prevented. More than half million women die from pregnancy related complications. Less than 1% of this death occur in developed countries, which indicate that these mortalities can be prevented if resources and services are available⁸.

In our study, maternal mortality rate is 212.09/100,000 live births which is low when compared with maternal mortality rate at different regions of Pakistan. It was observed that maternal mortality rate at Abbottabad⁹, NWFP, was highest 1270/100,000 followed by Quetta¹⁰, Balochistan 650/100,000 and Karachi¹¹, Sindh 304/100,000.

The life time risk of a women dying of pregnancy related causes in developing countries are 1:40 as compared to 1:3600 in the developed world¹².

The status of women and their health system can be assessed by country, s maternal mortality rate, which shows greatest difference between developed and developing world.

Majority of maternal deaths result from poor health which begin at birth, grows worst through adolescence and become critical at the time of childbirth¹³.

In our study, the commonest cause of maternal mortality was hypertensive disorders which was seen in 41.74% patients. Hypertensive disorders are the main cause of mm. Eclampsia can be prevented if detected earlier in antenatal period and give proper treatment like anticonvulsant (MGSO₄) and antihypertensive drugs. Study conducted at Lahore¹⁴ shows that eclampsia was the top leading cause of maternal death. Another study conducted in Peshawar has shown that eclampsia was responsible for 48% of maternal death¹⁵.

Another most common reason of maternal mortality was APH & PPH, which is seen in 37.86%, 5.82% of patients respectively. Same is seen in study conducted by Raheem R¹⁶.

Post partum hemorrhage is unpredictable, sudden in onset and more dangerous when women is anemic and women needs immediate management. Otherwise, severe morbidity and mortality can occur. Moreover limited availability of blood for transfusion further complicates the scenario.

Rupture uterus can be prevented by careful use of oxytocins, monitoring labour and early referral to tertiary care hospitals in case of prolong and obstructed labour.

Result of our study shows that majority of women has not received antenatal care. Similar is seen in study conducted by Hanif S¹⁷.

Maternal mortality rate among unbooked patients in a hospital at Nigeria was extremely high (23,121.4/100,000) as compared to booked patients (339.7/100,000)¹⁸.

UNICEF and NCMH reports that in Pakistan have less than 30% of pregnant women have received any antenatal care¹⁹.

An important factor leading to high maternal mortality rate is lack of transport, poverty, and delay in decision making power within family. These factors causes major hindrance in seeking in health services, which is seen in our study and same, is seen in other study²⁰.

CONCLUSION AND RECOMMENDATIONS

Most important cause of maternal mortality in our study was hypertensive disorders, APH and pph. maternal mortality was highest in advancing age, increasing parity and in unbooked patients.

Maternal mortality can be reduced by providing proper antenatal care, by proper evaluation of risk factors, deliveries by trained staff, early referral to tertiary care unit.

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