

# A Perception of Maternal Mortality among Women in an Urban Slum Area of South India

Keerti S. Jogdand<sup>1\*</sup>, Pravin N. Yerpude<sup>1</sup>, Mohini Jogdand<sup>2</sup>

<sup>1</sup>Associate Professor, Department of Community Medicine, Adani Institute of Medical Sciences, Bhuj, Gujarat, INDIA.

<sup>2</sup>Assistant Professor, Department of Community Medicine, S. R. T. R. Medical College & Hospital, Ambajogai, Beed, Maharashtra, INDIA.

\*Corresponding Address:

[drkeertijogdand@gmail.com](mailto:drkeertijogdand@gmail.com)

## Research Article

**Abstract: Introduction:** Every pregnant woman hopes pregnancy to be a smooth process and expect to give birth safely as pregnancy and child birth is considered a normal physiological process. But, this is not happening at least in developing countries including India. In the year 2010, global maternal deaths per 100,000 live births i.e. maternal mortality ratio (MMR) was estimated to be 210. **Objective:** To determine perception of maternal mortality among women in an urban slum area of South India. **Materials and methods:** a descriptive cross-sectional study was carried out in an urban slum area of south India among 378 women above 20 yrs of age. Using semi-structured questionnaire answers to questions on perception of maternal mortality in the community were elicited from the study participants. The data was analysed using the SPSS program 14. **Results:** The majority (35.98%) of the study subjects were in the age group 31-40 years followed by 28.31% study subjects in the age group of 21-30. 34.14 % study subjects were educated upto intermediate and 22.22 % were educated upto secondary level. 95.50 % of the study subjects aware that death can occur from pregnancy-related problems. 73.81% subjects stated that excessive vaginal bleeding was a possible cause of death followed by high BP as possible cause of death in 21.96% study subjects. **Conclusion:** In order to reduce the high rate of maternal mortality, health education programs on prevention of maternal deaths and morbidities directed towards at risk women need to be improved. As most of the decisions in families were taken by the men, their participation is also very important.

**Keywords:** maternal mortality, women, urban slum.

## Introduction

Every pregnant woman hopes pregnancy to be a smooth process and expect to give birth safely as pregnancy and child birth is considered a normal physiological process. But, this is not happening at least in developing countries including India. In the year 2010 nearly 287,000 deaths occur from pregnancy related causes worldwide.<sup>1, 2</sup> Most of the maternal related deaths were occurring in developing countries that accounted for nearly 99% of these deaths with Sub-Saharan Africa and South Asia contributing to 85% of the global maternal deaths.<sup>1</sup> The adult lifetime risk of dying from maternity related cause, for the year 2010, was 1 in 160 for Southern Asia, as compared to a much smaller lifetime risk of 1 in 3800 in developed countries. In the year 2010, global maternal deaths per 100,000 live births i.e. maternal mortality ratio

(MMR) were estimated to be 210. Thus, prevention of maternal mortality still remains a major challenge to health systems worldwide. This is reflected in Millennium Development Goals (MDGs). Out of the eight MDGs adopted by 189 countries in the world during millennium summit in 2000, improving maternal health (MDG-5) is one of the important MDG.<sup>3</sup> The targets for MDG-5 are to reduce the MMR by three quarter between 1990 and 2015, and to achieve universal access to reproductive health by 2015. In India, every year 55,000 women are dying due to pregnancy or childbirth-related complications.<sup>4</sup> The MMR for India for the years 2007-2009 was 212 per 100,000 live births, down from 254 in 2004- 2006.<sup>5</sup> But despite this reduction in maternal mortality, India is not on track to meet either its national or international targets. If India wants to achieve MDG target, it has to decline maternal mortality by 5.5% every year but actual rate of reduction is only 3.1%. Direct obstetric causes such as hemorrhage, sepsis, hypertensive disorder, unsafe abortion and obstructed labor are responsible for nearly 75% maternal deaths.<sup>5, 6</sup> Anemia, sickle cell disease and cardiac diseases are non-obstetric causes that are also responsible for maternal deaths. Apart from medical causes, there are nonmedical factors which include socioeconomic factors (illiteracy, poverty, ignorance, poor nutrition and poor use of available maternal services), cultural factors, religious factors, poor transport and telecommunication and biological factors (age and parity differential) which indirectly play important role in maternal deaths apart from lack of provision of emergency obstetric care.<sup>5</sup> Awareness and perception regarding the causes of maternal deaths among the community members will influence their decision to seek help in the face of an emergency. The ability of the women to recognize the correct causes of maternal mortality will greatly improve their health-seeking behavior and therefore could reduce our present alarming rates of maternal mortality. The objective of this study was to determine the awareness and perception of

maternal mortality among women in an urban slum area of South India.

## Materials and methods

This was a descriptive cross-sectional study that was carried out in an urban slum area Shrinavasrao Thota in Guntur City, Andhra Pradesh which is field practice area of dept of Community Medicine, Katuri Medical College, Guntur. The study period was June to September 2010. The area is divided into 6 parts. One area is chosen by simple random sampling method for the study. In the selected area, all women above 20 yrs of age who were present during study period were included for the study. Total numbers of study participants were 378. Using semi-structured questionnaire answers to questions on perception of maternal mortality in the community were elicited from the study participants. The data was analysed using the SPSS program<sup>14</sup>. Ethical committee approval was taken before the start of the study.

## Results

**Table 1** show that the majority (35.98%) of the study subjects were in the age group 31-40 years followed by 28.31% study subjects in the age group of 21-30. Among the study subjects, 54.49% were married and 22.75% were single while 34.14 % study subjects were educated upto intermediate and 22.22 % were educated upto secondary level. 9.78% study subjects were illiterate. **Table 2** shows that 95.50 % of the study subjects were aware of the fact that death can occur from pregnancy-related problems. **Table 3** shows that 73.81% subjects stated that excessive vaginal bleeding was a possible cause of death followed by high BP as possible cause of death in 21.96% study subjects. Majority of the study subjects were aware of the fact that one or more forms of delay could be responsible for their death, with delay caused by taking a decision to reach the hospital the most frequently mentioned (69.05%) followed by delay caused by hospital staff was mentioned by 66.67% study subjects. For providing emergency obstetric care, general hospital was the facility mentioned by most (57.4%) of the study participants, followed by teaching hospitals (54.4%), private hospitals (53.0%), maternity homes (18.9%) and traditional birth attendants (5.2%).

**Table 1:** Demographic characteristics of the study subjects

Characteristic	Number (%)
<b>Age</b>	
21-30 yrs	107(28.31)
31-40 yrs	136(35.98)
41-50	78(20.63)
51-60	32(8.47)
>60	25(6.61)
<b>Marital status</b>	
Single	86 (22.75)
Married	206 (54.49)

Separated	22(5.83)
Widowed	46(12.17)
Divorced	18(4.76)
<b>Education</b>	
Illiterate	37(9.78)
Primary	57(15.08)
Secondary	84(22.22)
Intermediate	129(34.14)
Graduate and above	71(18.78)

**Table 2:** Awareness regarding death due to pregnancy related problems in study subjects

Parameter	Yes	No	Don't know
Death can occur from pregnancy-related problems	361(95.50)	6(1.59)	11(2.91)

**Table 3:** Perceptions of study subjects regarding maternal mortality

Parameter	Number (%)
<b>Possible cause of death</b>	
Excessive bleeding	279(73.81)
High BP	83(21.96)
Infection of the womb	45(11.90)
Obstructed labour	38(10.05)
Witch craft/evil forces	28(6.08)
<b>Recognition of delays as cause of death</b>	
Delay in taking a decision to reach the hospital	261(69.05)
Delay in transportation	214(56.61)
Delay caused by hospital staff	252(66.67)

## Discussion

The study shows, in general, women in an urban slum area have a adequate awareness and perception of maternal mortality, as 95.50 % of the study subjects aware of the fact that pregnancy-related complications can lead to death. In a study conducted in urban area of Southern Nigeria, 90% of the study subjects were aware that pregnancy related complications can lead to death. Similarly in another study in Nigeria, 80 % of the study subjects were aware of maternal mortality.<sup>8</sup> In a study conducted in Varanasi, India, only 60 % of study participants were aware of maternal mortality.<sup>9</sup> The commonest cause of maternal mortality mentioned by study subjects was obstetric hemorrhage (73.81%). This finding confirms the worldwide perception of obstetric hemorrhage as the commonest cause of maternal mortality.<sup>2,3,5</sup> In a study conducted in Varanasi, India, nearly 60% of the study subjects mentioned hemorrhage as the commonest cause of maternal mortality.<sup>9</sup> Okolocha *et al.* in their study in southern Nigeria found that though women had fairly good knowledge of obstetric hemorrhage as a cause of maternal mortality but yet their attitudes, practices and situations kept them away from, or delayed the decision to seek, modern obstetric care.<sup>7</sup> Causes such as witchcraft/evil forces constituted 6.08%

of the causes of death mentioned by the subjects. This may be due to the fact that majority of the study population were educated. This finding contradicts the finding of a similar study from the southeast geopolitical zone of Nigeria, where spiritual attack from enemies and punishment by the gods for infidelity were perceived as frequent causes of maternal mortality.<sup>10</sup> The three types of delays were also suggested by most of the subjects as contributing factors to maternal mortality. Majority of the subjects were of the opinion that delay in taking a decision to reach the hospital was more crucial. Delay as cause of maternal death has been noted in previous studies also.<sup>8, 11</sup> General hospital was the facility mentioned by most (57.4%) as providing emergency obstetric care, followed by teaching hospitals (54.4%), private hospitals (53.0%). In a study conducted in central India, 42% of the deliveries takes place in general hospital.<sup>12</sup> Choosing private hospitals and maternity homes may be due to the long waiting periods experienced by patients in government hospitals while opting for traditional birth attendants may be due to the inherent belief system or poverty of those doing so.

## Conclusion

The study shows, in general, women in an urban slum area have a adequate awareness and perception of maternal mortality but more needed to be done in order to reduce the high rate of maternal mortality. Health education programs on prevention of maternal deaths and morbidities directed towards at risk women need to be improved. Contents of such health education messages should include early recognition of danger signs of maternal mortality, dispelling harmful cultural beliefs, registering early for antenatal care and prompt presentation at the hospital when in labor. As most of the decisions in families were taken by the men, their participation is also very important.

**Acknowledgements:** We would like to thank the study participants for their co-operation.

**Conflict of interest:** None declared

**Financial support:** None declared

## References

1. Trends in Maternal Mortality: 1990 to 2010. Estimates developed by WHO, UNICEF, UNFPA and The World Bank, 2012. Available from: [http://www.unfpa.org/webdav/site/global/shared/documents/publications/2012/Trends\\_in\\_maternal\\_mortality\\_A4-1.pdf](http://www.unfpa.org/webdav/site/global/shared/documents/publications/2012/Trends_in_maternal_mortality_A4-1.pdf)
2. Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, *et al.* Maternal mortality for 181 countries, 1980-2008: A systematic analysis of progress towards Millennium Development Goal 5. *Lancet* 2010;375:1609-23.
3. Health and Millennium Development Goals. World Health Organization, 2005. Available from: [http://www.who.int/hdp/publications/mdg\\_en.pdf](http://www.who.int/hdp/publications/mdg_en.pdf)
4. Rai SK, Dasgupta R, Das MK, Singh S, Devi R, Arora NK. Determinants of utilization of services under MMJSSA scheme in Jharkhand 'Client Perspective': A qualitative study in a low performing state of India. *Indian J Public Health* 2011;55:252-9.
5. Sample Registration System (SRS). Office of Registrar General, India. Special bulletin on maternal mortality in India (2007-09), 2011. Available from: [http://www.censusindia.gov.in/vital\\_statistics/SRS\\_Bulletins/Final-MMR%20Bulletin-2007-09\\_070711.pdf](http://www.censusindia.gov.in/vital_statistics/SRS_Bulletins/Final-MMR%20Bulletin-2007-09_070711.pdf).
6. Mukhopadhyay BK. Is maternal mortality in India expecting the "revised" millennium development goal? *Int J Dev Soc* 2012;1:31-42.
7. Okolocha C, Chiwuzie J, Braimoh S, Unuigbo J, Olumeko P. Sociocultural factors in maternal mortality: A study of a semi-urban community in Southern Nigeria. *J Epidemiol Community Health* 1998;52:293-7.
8. Kawuwa MB, Mairiga AG, Usman HA. Community perspective of maternal mortality: Experience from Konduga Local Government Area, Borno State, Nigeria. *Ann Afr Med* 2007;6:109-14.
9. Balchandani U, Rai D. A study of awareness regarding maternal mortality rate. *Indian J Preventive and Social Medicine* 2007;38(4):193-196.
10. AJ, Abasiattai AM, Udoma EJ, Etuk SJ. Community perception of the causes of maternal mortality among the Annang of Nigeria's South-East coast. *Trop J Obstet Gynaecol* 2005;22:189-92.
11. Thaddeus S, Maine D. Too far to walk: Maternal mortality in context. *Soc Sci Med* 1994;38:1091-110.
12. Tayade S, Bagde M, Shivkumar PV, Tayade A. Maternal death review to know the determinants of maternal mortality in a district hospital of Central India. *International Journal of Biomedical Research* 2012;3(3):157-163.

## Corresponding Address:

**Dr Keerti S Jogdand**

Associate Professor

Dept of Community Medicine

Gujarat Adani Institute of Medical Sciences

G.K. General Hospital, Bhuj-370001, Gujarat, India

**Email:** [drkeertijogdand@gmail.com](mailto:drkeertijogdand@gmail.com)