Knowledge of Urban Mothers About High Risk Conditions During Pregnancy

A Case Study

SIMRAT KAUR N.J. SINGH

Introduction

India has a very high (about 300/100,000) maternal mortality rate as against a very low level of 5-45/100,000 live births in developed countries. Majority of deaths occur in unbooked women. Shroti, Aparna *et al* (1990) reported MMR of 2.5/1000 live births in a rural population of Sirur. Swain, S. and A. Prakash (1992) reported that 466 (44.50%) of pregnant women were detected to be high risk cases, out of whom 167 were referred but only 15 (9%) women availed of the referral services. A poor utilisation of the maternal and child health care is a major reason of high maternal mortality and morbidity in our country.

The WHO Task Force in 1978 evolved the concept of 'Risk Approach' for improved MCH care as a managerial tool in order to ensure maximum utilisation of existing resources by those who need them most. Knowledge and awareness about risks associated with pregnancy among women can help them to seek maternal care services at the right time and help to reduce maternal mortality and morbidity. It was, therefore, decided to find out knowledge about presence of risk factors during pregnancy among women.

Objectives

1. To assess the knowledge of mothers about high risk factors associated with pregnancy and labour.
2. To find out the relationship of knowledge about risk factors with age, education, income and occupation.

Review of Literature

A very high maternal mortality rate is reported in India – about 300/100,000 live births. Causes of maternal mortality are largely avoidable. Shroti, Aparna *et al* (1990) reported that the causes in 60% maternal deaths were direct obstetrical causes which could have been prevented through prenatal care. Sepsis is another cause of maternal deaths as reported in a study conducted by FOGSI (1980).

Infective Hepatitis is another major cause of maternal deaths. Malkani (1957) reported a fatality rate of 16.5% due to pregnancy complicated by infective hepatitis.

Shroti, Aparna *et al* (1990) reported a very high relative risk of maternal deaths associated with pregnancy with jaundice, pitting oedema, and anaemia and a moderate risk with maternal age $\geq$ 30, parity $\geq$ 5 and teenage pregnancy.

Toxaemia, anaemia, jaundice and sepsis are other causes of maternal mortality. Sengupta, A. and A.G. Code reported that teenage mothers faced a higher risk of maternal deaths, i.e., 7.3/1000 deliveries.

High risk factors adversely affect the outcome of delivery. Gupta, R.K. *et al* reported that out of 519 pregnant women examined, 315 (60.7%) had risk factors present. The cases of high risk pregnancy could be easily identified by the Auxiliary Nurse Midwife, C.H. Worker and trained Dai.

Reporting about actiological factors of maternal mortality in Punjab, Sarin R. Ashi *et al* (1992) pointed out that majority (92.8%) of deaths occurred in unbooked cases, 74.6% hailed from rural areas and 76.4% had a poor socio-economic status. Main causes of maternal mortality were sepsis (37.2%) haemorrhage (26.2%), toxaemia of pregnancy (21%) and obstructed labour (15.3%). Avoidable factors were present in 89.6%. These facts speak for the need of proper antenatal care, screening for high risk pregnancies, and provision of efficient communication and transport facilities. One of the factors in high maternal mortality is poor utilisation of maternal child health care. Swain, S. and A. Prakash reported that out of 466 cases detected to be high risk, 167 (35.8%) cases were referred. Only 15 (9%) availed of the referral services. Health Workers can screen various risk factors such as age, parity, previous bad obstetric history, primigravidae, multiparas, height, weight and haemoglobin level etc. and also teach the community about these risk factors and prepare them for self-referral.

Materials and Method

The study was conducted in a field practice and training area taken up by College of Nursing, CMC, Ludhiana,

The author is Professor, College of Nursing, CMC, Ludhiana

during March 1996. The population of this area is 707 with a total of 121 families. The area is visited by staff and students of College of Nursing. Health education, nutritional assessment, supportive maternal care, counselling and child care services are provided continuously to the families. Family folders are maintained. The community receives services from Civil Hospital, CMC and a number of private practitioners. Main occupations of the people are business and service.

There are 132 women in the reproductive age group. A random sample of 40 women was taken for the study. A structured interview schedule in two parts was prepared to collect data. The first part related to identification data and the second had specific (20) knowledge items on high risk conditions during pregnancy.

Data was collected through personal contact and interview with the women during the month of March, 1996.

Findings

Sample Characteristics: Majority (50%) of mothers were in the age group of 27-36 years, ninety percent of mothers were literate. Eight percent mothers were twelfth pass and above. Eighty-five percent of the mothers were housewives, only 6 percent were in service. Further, it was found that a majority (37.5%) had family income between Rs. 3000-4000 and above. Only 20% of the mothers had a family income of less than Rs. 1000 per month.

The mean knowledge score (K.S.) of mothers was 14.12 (70.62%), a fairly high level of knowledge about high risk conditions during pregnancy. The K.S. of mothers ranged between 5-20.

The highest K.S. (95%) was obtained about bleeding and pain in abdomen and the lowest (50%) about pregnancy with fever as being high risk conditions during early pregnancy.

Mothers had highest (90) mean % K.S. about fainting and fits and lowest (55) mean % K.S. about severe headache to be warning signs of eclampsia. On the whole a high mean % K.S. (70) was obtained in this category.

Mother's K.S. was highest (75) mean % about weight being (40 kg) as high risk conditions whereas it was the lowest (50) mean % about age being < 18 years of > 30 years as high risk condition in pregnancy.

A very high mean % (95) K.S. was obtained by mothers about previous LSCS to be high risk condition and the lowest (50) mean % K.S. was obtained about precious and complicated pregnancy as high risk condition during pregnancy.

The highest mean % (90) K.S. was obtained by others regarding bleeding P/V as against the lowest mean % (57.5) regarding loss of foetal movements to be high risk conditions.

Knowledge score of mothers was analysed according to age, education, occupation and income. It was found that women in the youngest age group, i.e., between 17-26 years, obtained the highest mean % K.S. of 80.35 whereas those in the highest age group, between 37-47 years, obtained the lowest mean % K.S. (48). When K.S. was compared with education, it was found that mothers with the highest level of education, i.e., with B.A. and above, scored the highest mean % K.S. (88.4) whereas those with the VIII pass scored the lowest mean % K.S. (36.25).

On analysis of the K.S. obtained by mothers, occupation-wise, it was found that those in service had a higher mean % K.S. (86.55) as against 67.55 obtained by those who were housewives.

Income-wise comparison of mean % K.S. showed that the mothers with the highest income level scored the highest mean % K.S. (75.60) whereas those in the income group of Rs. 2500-3000 scored the lowest mean % K.S. (69.40). It was observed that mothers in the lowest income group, i.e., Rs. 1000-2000 also scored a very high mean % K.S. (75). This was due to the fact that out of 8 mothers in the lowest income group, only 1 was illiterate whereas 7 were literate in that 6 were matriculate and above.

Discussion

Forty mothers were interviewed, majority of mothers (35%) in the present study were in the young age group whereas only 15% were aged 37 and above.

Ninety percent of the mothers in this study were literate; in that 80% were educated upto XII class and above.

Eighty five percent of the mothers were housewives whereas only 15 percent were working. This may be attributed to the better economic situation of the families as majority (57.5%) of the families' income was above Rs. 3000 per month.

Mean % K.S. of mothers was fairly high, i.e., 70.62. It may be attributed to their good educational status.

The highest mean % K.S. (95) was obtained on the knowledge of bleeding and pain in the abdomen followed by 80 about anaemia. The lowest (50) mean % K.S. was obtained on pregnancy with fever as being high risk conditions. It shows that fever during pregnancy is not considered to be high risk by half of the women, so it needs to be included in antenatal care advice. Sarna, K. (1993) and Sharma (1990) reported a lower than 50 percent mean % K.S. in their studies.

Dutta *et al* reported that parents of 43.2% children who were 'at risk' were not aware about presence of any of the risk factors like birth interval of less than two years, malnutrition, birth order of 5 or more, etc. Comparison of knowledge score could not be done as it was not assessed in other studies. Analysis of knowledge of mothers about warning signs of eclampsia showed a very high mean % (90) about fainting and fits whereas the lowest mean % K Score (55) was about severe headache. It shows the impact of health education and advice received by mothers from the staff and students of College of Nursing.

Further analysis about effect of parity, age, height and weight on pregnancy revealed the highest mean % (75) K.S. about weight < 40 kg and the lowest (50) about age, < 18 years and > 30 years. It shows the need to intensify health education regarding having a child after 18 years. Further analysis about effect of bad obstetrical history on pregnancy showed a high mean % K.S. (75) as a whole. The lowest mean % K.S. (50) was obtained on the item of precious and complicated pregnancy.

In the category of high risk conditions during late pregnancy, mothers obtained the highest mean % K.S. (90) about bleeding P/V and the lowest (57.5) about loss of foetal movement. Mothers need to be informed about the importance of foetal movements. Should they experience loss of, decreased or increased foetal movements they need to consult the doctor or the Health Worker of the area.

Age-wise mean % K.S. analysis showed decrease in K.S. as age increased. The youngest group had the highest (80.35) level of knowledge score than the other age-groups. The youngest age group is better informed. Similar findings were observed by Sarna (1993), i.e., younger age group mothers obtained a higher mean % K.S. Mean % K.S. was also observed to be highest (88.4) among the highest literate group i.e., B.A. and M.A. pass as against those with VIII pass who scored a mean % K.S. of 36.25. Illiterate mothers also obtained a higher score than those with VII pass. It may be attributed to a high income level and exposure to health education by the staff and students of College of Nursing besides the effect of mass media. Sarna (1994) and Mahal (1989) also reported similar findings, i.e., subjects with high literacy obtained significantly higher K.S. than those with lower literacy status.

Conclusion

Forty mothers' knowledge about high risk conditions during pregnancy was assessed in an urban area in Ludhiana. The findings revealed that: (I) the mothers possessed a fairly high level of mean % K.S. (70.62); (ii) the highest mean % K.S. (75) was obtained in the areas of high risk conditions during early pregnancy and the effect of bad obstetrical history on pregnancy; (iii) the lowest mean % K.S. (66.25) was obtained about the effect of parity, age, height and weight on pregnancy; (iv) mothers with the highest level of education obtained the highest mean % K.S. (88.4) whereas those with VIII pass had the lowest K.S. (36.25); (v) younger age group (17-26 years) mothers had the highest mean % K.S. (80.35) whereas those in the older age group (37-47 years) had the lowest K.S. (48); (vi) mothers in service had a higher K.S. than housewives.

The study is limited in the sample. Health education was also given to mothers as needed during the study. Further study involving a larger sample may be done.

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