ORIGINAL ARTICLE
Social Factor Affecting Maternal Mortality at PUMHS, Nawabshah

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ABSTRACT
Objective is to know social factor influencing maternal mortality rate.
Study Design: Descriptive cross sectional study.
Place and Duration of Study: Department of Gynae & Obstetrics at PUMHS Nawabshah Jan 2021 to 31 December 2021.
Methodology: Pregnant women about 60, who came to hospital and unfortunately died due to pregnancy related complications, or who brought dead but died because of pregnancy and abortion, puerperium period at home included in this cross sectional study and know the impact of social factor playing in maternal mortality rate are studied. We studied for about 1year, how women's social status, education level and financial status and age at marriage, society can change maternal mortality rate. We found that because of the depriving status of women in society that ranges from not involving her at any level of her life's decision making supplements her to easily fall prey to death during her vulnerable period.
Results: Sixty patients died due to pregnancy, abortion and puerperium related complication had mean age of 26.4+-9.3years range (16 -45yrs). The most common preventable cause of maternal mortality in this group is bleeding including both antepartum hemorrhage and post-partum hemorrhage., (n=24,40%), followed by this preeclampsia and eclampsia responsible for (n=18,30%), while obstructed labour accounts about (n=6,10%) and remaining died due to other causes (n=12, 20%) like infection, embolism etc. Factors that exaggerate these deaths include poverty. It was found that (n=30, 50%) women died, only one member earning an unstable job having responsibility of at least 7- 8 family members and monthly income is below 20000 rupees. Another major social factor is education as the majority of women have no formal education (n=36, 60%), so usually they are doing house work without any other paid chores. Many women are married at an early age (n=4, 6%) are teenagers, women didn't receive antenatal care during their pregnancy (n=40,65%). Many women had 4kids before this pregnancy (n=25, 42%).
Conclusion: Social economic status of women and her husband can decrease or increase women chance of death to die during pregnancy, abortion and puerperium time. If these factors are addressed, we will reach the SDG.
Keywords: Maternal mortality rate, Puerperium, Sustained development goals.

INTRODUCTION
Mother is a great blessing for a child's life in this materialistic world, so when, unfortunately, maternal mortality occurs it creates an unfilled vacuum to child' life. According to WHO ,1 woman dies every 2 minutes in the world[1]. WHO REPORT in 2017 revealed that 810 women died from preventable causes in pregnancy, childbirth and puerperium each day[2]. The UN estimates that every year about 350000 die as a result of pregnancy or labour. Out of these maternal deaths 94% belong to lower middle and low income countries[3].

These countries have multiple problem including population overgrowth, poor infrastructure, high rate of illiteracy and unemployment, gender discrimination, teenage or mismatched marriages, unequal distribution of health resources and poverty. Because of these factors these countries are still lagging far behind to achieve sustained development goals, where they have to bring down maternal mortality ratio less than 70 per 100,000 live births apart from other main parameters including to end poverty, protect the planet and ensure by the end of 2030 all people enjoy prosperity and peace[4].

Developing regions like Sub-Saharan Africa and Southern Asia accounted for approximately 86% of estimated global maternal deaths in 2017[5]. Out of this Sub-Saharan Africa comprises two-thirds (196000) of maternal deaths, while one-fifth (58000) belongs to South Asia[6]. Although South Asia achieved the greatest overall reduction in MMR: about 60%. While South Asia contributes 6 billion populations to worlds[7].

According to recent survey total population of Pakistan is 220 million in 2020, world sixth populous country have maternal mortality rate was 140 per 100,000 live birth rate in 2017[8], as

Compared to Finland where maternal mortality is 3 per 100000 live birth rate[9].

Social factors influencing this difference are population, poverty, illiteracy, decrease use of family planning services, religious beliefs, non-serious attitude of stakeholder and society towards women's health. Where an adult woman has no right to decide about pregnancy planning, receive antenatal care or have limited knowledge about danger signs of pregnancy nor is she financially stable to avail these facilities. Social factors greatly contributed to MMR in these poor countries and meeting the first MDG and now achieving SDG.

To decrease MMR in these countries our stakeholder and society should change their attitude towards women's health. Because of women one can make a healthy nation by reducing MMR and indirectly it influences the reduction of neonates or infant mortality rate. In this way the nation can be healthy, prosperous and play a larger share towards country development[10].

METHODOLOGY
This is descriptive- cross sectional study conducted at gynae & obstetrics department of PUMHS Nawabshah during the period of Jan 2021 to 31december 2021. This hospital receives patients from all five taluka of Shaheed Benazir Abad, Sanghar district, Noshero feroze district,Dadu , Sehwan ,Hala and Saeed Abad. During this period of one year 10000 plus women were admitted in hospitals and 9000 women delivered. sixty patients expired due to pregnancy related complications. Permission was taken from the Ethical Review Committee of hospital and relatives of women. Records were obtained from patient notes, hospital records and ICU records and by verbal autopsy from relatives. Data was entered in SPSS 19 version.

Inclusion criteria for this study were woman of reproductive age group from 16 years to 50 years of age, women should be pregnant or within puerperium 42 days of delivery or abortion. died due to pregnancy, puerperium, miscarriage relating complication.

Exclusion criteria were women who died in pregnancy but due to accidental cause or due to malignancies related problems.

After maternal death, the mortality form is filled by post graduate trainees and countersigned by consultants. Then M.M. R is categorized by ICD-10 code. These forms were then entered and analyzed in SPSS 19. Age and biological cause were presented by using mean standard deviation. Frequency and percentage of biological and social causes of maternal mortality is calculated. Chi -square test was computed to compare the variables.

RESULTS

Sixty patients died due to pregnancy, abortion and puerperium related complication had mean age of 26.4+-9.3years range (16 - 45yrs). The most common biological cause of maternal mortality in this group is bleeding including both antepartum hemorrhage and post-partum hemorrhage., (n=24,40%), followed by this hypertensive disorders of pregnancy responsible for (n=18,30%), while obstructed labour accounts about (n=6,10%) and remaining died due to other causes (n=12, 20%) like infection, embolism etc. Factors that exaggerate these deaths include poverty, when they enquired about source of income, monthly income, number of people earning it was found that (n=30, 50%) women's house only one member earning with unstable job having responsibility of at least 7- 8 family members and monthly income is below 20000 rupees. So when a woman is not financially independent she cannot get her reproductive rights. Her nutritional status was compromised not get antenatal care. Another major social factor is education as the majority of women have no formal education (n=36, 60%), so usually they are doing house work without any other paid chores. Many women are married at an early age (n=4, 6%) are teenagers, women didn't receive antenatal care during their pregnancy (n=40,65%). Many women had 4kids before this pregnancy (n=25, 42%). So multiparty, no birth spacing put more danger to women's life. As won didn't know about family planning methods nor have the power to go there and take birth spacing methods.

Table 1: Biological factors of maternal mortality rate at PUMHS Nawabshah

Causes	Number	Percentage
Hemorrhage	24	40
Hypertensive disorders	18	30
Obstructed labour	6	10
Infections,	12	20
Others causes		

Table 2: Social factor affecting maternal mortality rate at PUMHS Nawabshah

Variable	Number	Percentage %
Age		
16-20years	4	6.6
20-30years	32	53
30_40years	18	30
40 -45years	6	10
Number of children		
0-2	15	25
3-4	20	33
4	25	41
Monthly income in rupees		
Less than 20000	30	50
20000-50000	18	30
50000-100000	12	20
Education		
No formal education	36	60
Primary	12	20
Middle	6	10
Matric	4	6.6
Inter	2	3.3
Bachelor	0	0
Antenatal care		
Yes	10	16
No	40	66

DISCUSSION

Aim of this research is to know the implication of social factors on maternal mortality rate. Worldwide it is an accepted fact that biological, economic, cultural and social factors affect the health behavior of a community. [11] Same principles also apply on maternal health in Pakistan, where poverty, illiteracy, gender discrimination, low or no antenatal care, multiple pregnancies, teenage pregnancies are many factor contributing maternal mortality rate[12]. As we noted in our study, the majority of women that died had no formal education that contributed to their poor economic status, rendering them seeking early health facilities and making the first delay in decision making that is the most important factor in affecting maternal health[13]. As our study show 60% women are not educated so they are unaware about pregnancy course, nearby hospital or they couldn't afford to get antenatal care, this make complex behavior influenced by cultural and indigenous beliefs. Majority of women are not financially independent so they have a high poverty level in their houses that cause nutritional deficiencies, they have no proper food to eat during pregnancy or puerperium period. It is an evidence based fact that a healthy balanced diet during pregnancy and childbirth improve maternal health status and reduce maternal mortality[14].

Women discrimination at home due to patriarchal society behavior towards daughter in law[15]. Women with more than 4 children raised her risk of complication of pregnancy or puerperium, it was noted in our study that most of woman have no decision-making power to plan for pregnancy or even get family planning services by her own, as her family member are reluctant toward birth spacing due to their belief or myths or their attitude to woman health[16]. As 42 % of women in our study have more than 4 children.

Early marriages are common in our countries where a young girl is not prepared physically or mentally for pregnancy, but as it is prevalent in our society it becomes a norm in our lives. Unreal expectation to become pregnant as soon as possible after marriage puts mental pressure on unprepared girls and puts her life in danger of more complications during pregnancy[17]. A few doctors are of the view (15 in 60) that early marriage is an important factor of maternal mortality in developing countries[18]. As we found in our study, 6.6% of women were teenagers who were married at an early age due to parent's belief or lessening their burden.

Due to women's social exclusion, no economic contribution towards family matters she remains unaware of her reproductive rights[19]. Her mother in law has more power at home to decide whether to get antenatal care or not. If she gives birth to baby girls, then again she was not welcomed and again disempowered her more for this[20]. So she doesn't even have any birth spacing method If she wants to get it. Her next pregnancy further jeopardizes her future health and makes her more susceptible to maternal death[21].

To decrease maternal mortality rate to meet sustained development goals we must educate and empower not only our boys but simultaneously our girls also. So that they can be more informative and decision making in her future. We should have serious commitment towards women's health by providing free of cost, round O' clock services to women to reduce MMR.

Make easy availability of family planning services and follow our legislation of age at marriages.

Limitation: We only studied those women that reached our labour room, or died in our wards or ICU. Maternal mortality rate is high. Those women who died and were not diagnosed properly in other departments like casualty medical or surgical ward are not included. Those who died at home, BHU or private medical centers are also not notified.

CONCLUSION

Social factor like poverty, illiteracy, teenage marriages and gender discrimination are influencing maternal health in our communities

and to decrease MMR and reducing it to 70 /100000 live birth, we must address these issues.

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