MEDICAL CHANNEL

Original Article

PERINATAL MORTALITY (PNM): A DISSECTION OF SOCIAL MYTHS, SOCIOECONOMIC TABOOS AND PSYCHOSOCIAL STRESS

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ABSTRACT

Background: Several independent and inter-dependent factors contribute in high rates of perinatal mortality (still births and early neonatal deaths). The Aim of this study was to identify community based myths and obscure beliefs that affect maternal health, and to find socio-economic and psychological co-relates impacting on PNM.

Methodology: A small scale, community based study was carried out in June, 2012 at squatter settlements of Karachi, Pakistan during undergraduate electives at Aga Khan University Karachi. A pretested structured questionnaire was administered to married women of child bearing age (15-49 years) with a history of perinatal mortality.

Results: Study showed that out of 55 successfully surveyed women, 63.6% did not take antenatal care; 40.9% due to 'infertility' myth; 22.7% had no access. Generally women were of poor health; 52.7% weighed 40-50KGS, 43.6% were severely anaemic. The literacy rate among surveyed women was very low; 63.6% were illiterate. During pregnancy, 34.5% did household work for 6-8 hours in a typical day; and 38.2% were pressurized for sons. The majority (40%) of husband's worked as fisherman and 76.4% had their income < 5,000 Pakistani rupee (<51.33 US dollar) per month. 47.3% of their babies were Low birth weight (<2.5kg) and 38.2% died in first 12 hours; asphyxia caused 30.9% of these deaths while 29.1% were due to pre-eclampsia (hypertension and protein in urine during pregnancy). However, 14.5% mothers believed it was due to supernatural powers.

Conclusion: In order to reduce perinatal mortality, it's important not only to make antenatal care available but also acceptable and accessible. Due efforts are required in educating women about the health benefits of antenatal care, and increasing women's overall awareness in order to uplift their physical and mental health and enabling them to contribute towards social and economical growth.

Keywords: perinatal mortality, antenatal care, social myths, psychosocial stress

INTRODUCTION

Perinatal mortality (PNM) is a global challenge, which imposes a serious threat for both mother and child alike. World Health Organization (WHO) defines perinatal mortality as deaths occurring during late pregnancy (>22 weeks of gestation), during birth and within seven days after delivery.[1-2]

Worldwide there are about 130 million babies born every year of which 4 million die in the first 4 Weeks and 3.3 million are still births.[1,5,1.] The perinatal period is considered the most critical phase of Life, [2-3-4] serving as a sensitive indicator of the quality of health services provided to pregnant women and their newborn and indeed helps to elucidate the underlying factors responsible for perinatal mortality. It serves as an indirect determinant of maternal mortality and economic stability for any country.

The problem is not only confined to third world low income generating countries devoid of standardized maternal and child health care services but extends its roots to

well developed nations of the world. Even though there here have been dramatic reduction of PNM in recent past owing to investments in reproductive health and socio-economic conditions, due multisectoral approach in this regard lacks.

According to WHO, the number of perinatal deaths worldwide is greater than 7.6 million, with 98% of these deaths occurring in developing countries.[6] In many parts of Africa and Asia PNMR is as high as 75/1000 and 36 - 74/1000 total births have been reported, respectively[7]

In Pakistan about 5.3 million births occur yearly out of which 2, 70,000 new born die. About 2/3rd of this neonatal mortality occurs in first 24 hours (Figure-1), making it the most critical period for survival. This high perinatal mortality is 10 times higher than that in Unites States.[5-]

It would be difficult to achieve the Millennium Development goal of reducing child mortality by two thirds by 2015 without reducing perinatal death.[2,9] The Perinatal mortality rates reported for Pakistan are between 61-81/1,000.[5,10] A demographic survey in Karachi reported 54/1000.[5.11]. Similarly a large prospective study of village and peri-urban slum based population around Lahore revealed a perinatal mortality rate of 67/1000 total birth with still birth rate of 44%.[5, 12]

Perinatal mortality Survey's previously conducted were largely hospital based focusing on socio-biological determinants. The importance of this research lies in unfolding community practised social myths, socioeconomic and psychosocial stresses contributing in high perinatal mortality. Neonatal and still births are poorly recorded in community settings because many of these occur in domiciliary settings. The basic idea of this research was to visit their homes and lives and try finding the largely overlooked factors contributing in upward trend of PNM.

OBJECTIVE

To observe various community based social myths, socio-economic and psychosocial taboos causing an increase in PNM.

METHODOLOGY

A small scale, community based, retro-grade, cross sectional survey was conducted in the month of June, 2012, during undergraduate electives as Aga Khan University Karachi, in an urban squatter, Rehri Goth, a coastal fishing village in Pakistan, comprises community of fishermen and laborers.[12] Included in the survey were a total of 55 married women of reproductive age (15-49 years) having a history of perinatal mortality.

They were conveniently surveyed by a structured questionnaire preceded by inform consent from each participant. It inquired about various dimensions affecting PNM.

1) Socio-Economic And Demographic Variables (mother's education, occupation, income, father's occupation and income, age, weight, maternal disease, parity, household information, no. of meals, constituent of meals, water and sanitation conditions, drugs, smoking, gutka history).
2) Biological And Psychological Determinants (no. of pregnancies experienced, hours of work daily during pregnancy, no of full term, premature, still births, neonatal deaths experienced, antenatal care if taken, vaccination history, if pressured for giving birth to sons, antenatal, postnatal complications and psychosocial stress faced in each pregnancy).
3) Details of New Born (sex, congenital anomaly, birth weight if known, history of birth asphyxia, umbilical cord anomaly).

RESULTS

The socioeconomic and demographic factors are given in Table – 1. Outcome of study showed that out of 55 successfully surveyed women with a history of perinatal mortality; around 38.2% were pressurized for sons and were subjected to divorce threat over the issue; rate of drug and tobacco addiction was high amongst these ladies. Generally, 67.3% surveyed females were addicted to betel nuts and gutka (local tobacco product), 50.9% to tobacco in many forms and 25.5% to drug intake.

Psychological stress was faced by 40% (confirmed through emotional and behavioral symptoms) during pregnancy. The main reason for the stress was constant pressure for sons and increase work load during pregnancy.

Majority of surveyed females 63.6% did not take antenatal care (regular nursing and medical care recommended for pregnant females), 40.9% of them due to some local myth while 22.7% had no access to antenatal care.

PSYCHOSOCIAL FACTORS: During our survey, 38.2% females reported that they were pressurized for giving birth to sons by their in-laws while 61.8% faced no such family pressure. The former females were more inclined towards drug usage than later. Overall, Addiction to betel nuts, tobacco and drug intake was 67.3, 50.9%, 25.5%, respectively. Psychological stress was experienced by a large section of surveyed females, 40% of women (confirmed through emotional and behavioral symptoms) during pregnancy.

Majority of females 63.6% did not take antenatal care, 40.9% of them due to some myth while 22.7% had no access to antenatal care.

ANTENATAL AND POST NATAL FACTORS: TTV (anti-tetanus) vaccination was not taken by 63.5% endangering the life of neonate. Domiciliary deliveries were common accounting for 65.5% of total deliveries while only 34.5% occurred in hospitals. Untrained mother–in-laws were considered as a reliable midwives, responsible for 41.8% of these deliveries, while lady doctors accounted for 36.4%, Trained Birth Attendant 20% and lady health visitor 1.8%. Male newborns were 54.5% newborns while 45.5% were females. Method of delivery, 89.1% was Normal Vaginal Delivery and 4.2% caesarian section. The major cause of neonatal deaths was birth asphyxia 30.9%. Others are reported in Table 3.

DISCUSSION

Pakistan has rich heritage of social myths, spanning several decades, diffusing through linguistic, racial, geographical and socio-economic barriers. Fortunately, with increasing prevalence of education through many mediums, many of these cultural believes are now diminished in intensity in upper and middle socio-economic setups. However, in rural and outskirts of urban, people solemnly practice and preach such believes. Underlying rationale behind endemicity of many social myths is lack of basic formal education. More than 60% of men and 90% of women in Rehrigoth have received no formal schooling or education (IUCN, 2003). Educating female which should be mandatory is considered forbidden in many tribes of the region.

Among many myths, stories, or old wives' tales, is the belief that is passed arduously in Rehrigoth and directly implicated in perinatal mortality was the probability of acquiring 'infertility' with antenatal care taken. A common perception is that antenatal

TABLE 1
SOCIO-ECONOMIC AND DEMOGRAPHIC FACTORS RELATED TO PNM:

RISK FACTORS	PERCENTAGES	NUMBERS N=55
Maternal education:		
Primary level	30.9%	17
Secondary level	5.5%	03
Illiterate	63.6%	35
Time elapsed since last delivery:		
<1 year	36.4%	20
2 year	14.4%	9
3 year	1.8%	1
4 year	5.5%	3
5 year	5.5%	3
6 year	5.5%	3
7 year	9.1%	5
Marriage:	74.5%	41
Inside family	73.17%	30
-first cousin	26.83%	11
-second cousin	23.6%	13
Outside		
Husband's income: (Pakistani rupee)		
<5,000	76.4%	42
5-10,000	20%	11
10,001-15,000	1.8%	1
15,001-20,000	1.8%	1
Own income:		
<5,000	30.9%	17
5-10,000	5.5%	3
Diet:		
Balanced:	49.1%	27
Un-balanced:	50.9%	28
Living conditions:		
Poor	65.5%	36
Satisfactory	23.6%	13
Good	10.9%	6
Family status:		
Joint family	74.5%	41
Nuclear family	25.5%	14
Water and sanitation:		
Poor	65.5%	36
Satisfactory	21.8%	12
Good	12.7%	7
No. of hours of work during pregnancy:		
2-4 hrs.	18.2%	10
4-6 hrs.	34.5%	19
6-8 hrs.	34.5%	19
8-10 hrs.	12.7%	7
Iron and folic acid intake during pregnancy:		
Taken	43.6%	24
Not taken	56.4%	31
Maternal disease:		
Signs of anemia	5.5	3
Eclampsia	23.6	13
Pre-eclampsia	3.6	2
Gestational diabetes	7.3	4
Asthma	23.6	13
APH (bleeding from vagina during delivery)	16.4%	9
PPH (post-delivery loss of blood greater than 500ml in vaginal or 1000ml in cesarian section)	6.4%	9
Obstructed labor	3.6%	2

FIGURE 1:

38.2% (n=21) neonatal deaths occurred in less than 12 hours after birth, 7.3 % (n=4) in less within 24 hours.

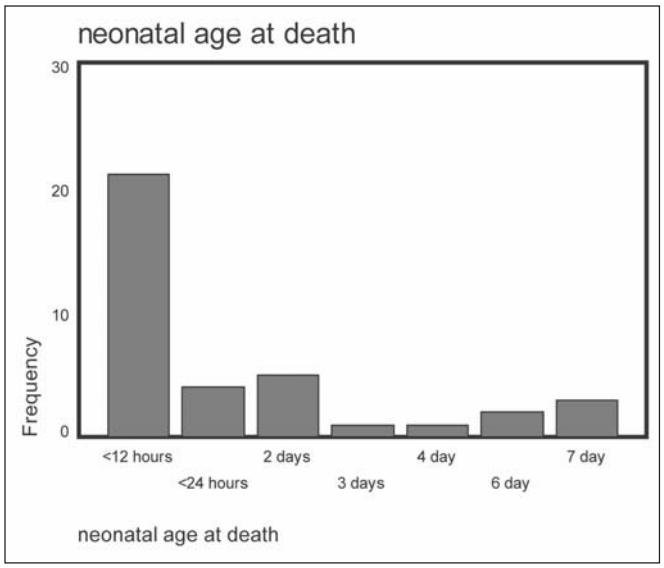
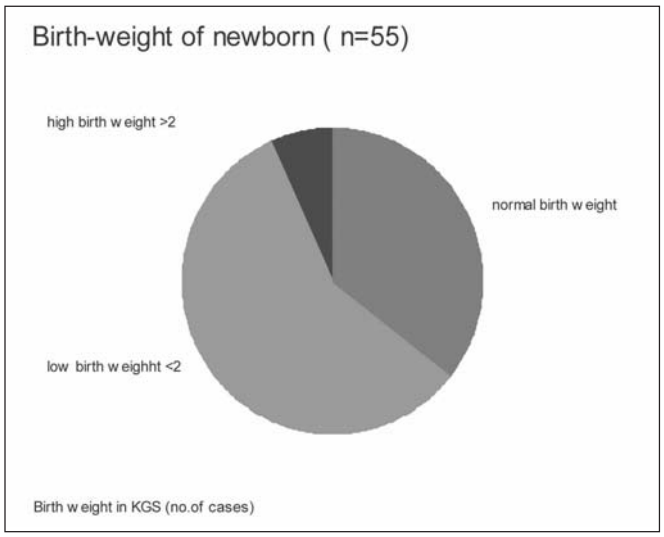


FIGURE 2:

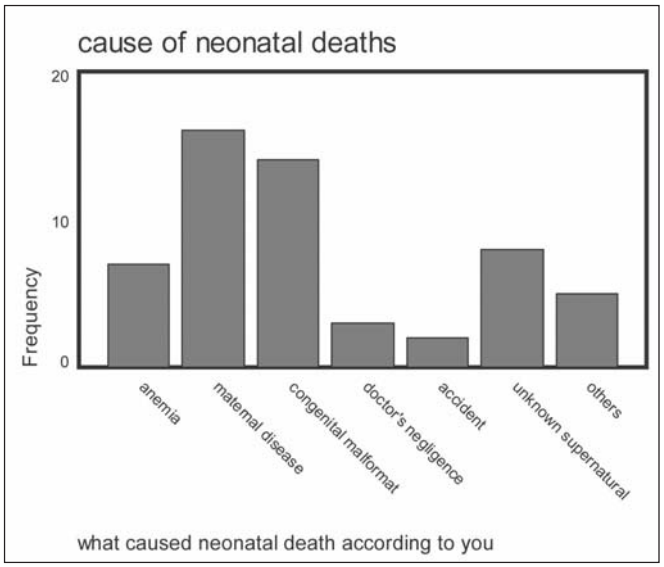
majority of newborns, 47.3% (n=26) were of low birth weight <2.5Kg. Normal birth weight of 2.5Kgs were 29.1% (n=16) and those with birth weight >2.5Kgs were 5.5% (n=3). Since, it was retrospective survey exact weight of the neonate was not determined, had to rely over hospital records or mother's recall.



vaccination causes infertility or weakens a woman rendering her unable to deliver a child. Hence, a large proportion of 40.9% of pregnant females with access to antenatal care refused to take it. Few of the distant areas in this squatter settlement have no established health care centers in proximity to their access. Many of the resident females here prefer not to take antenatal care than paying a visit at a distantly located health facility.

FIGURE 3:

According to mothers, 29.1 % (n=16) deaths were due to her own disease out of which vast majority were due to Pre-eclampsia. Of significance here was 14.5% (n=8) reported that neonatal death was either due to God's will or supernatural powers. A study has reported 64/1000 PNDs due to eclampsia and 56% of severe perinatal complications.[5,13]



Another myth that has its ground among RehriGoth women was eating less result in easier delivery through the normal vaginal canal. The consequence of this myth often leads to malnourishment and low birth weight for the child sometimes resulting in death (Figure-2). There is also a belief that home delivery is a better option than that of a hospital. Financial constraints and low income generation renders home delivery more economical. All these factors create barriers to the delivery of a healthy child. Perinatal mortality itself is governed by many factors including the 'myth' factor which is largely over-looked and yet is a significant contributor in many developing nations. Any stigma to form and prosper requires several culture influenced factors. To overcome them requires multi-dimensional prolong efforts in various sectors. Perinatal mortality jeopardizes maternal health and life accounting for high maternal morbidity and mortality in Pakistan.

Another significant culprit present in Rehrigoth particularly and largely in developing nations like Pakistan is the pressure inflicted on pregnant females for bearing sons. Survey results showed (38.2%) females were pressurized for sons. Higher rate of drug usage, tobacco in the form of shisha, betel nuts were seen among these pressurized females. Study has shown that perinatal mortality increases directly with the level of maternal smoking during pregnancy. Increases in smoking level are associated with increases in the frequency of early fetal deaths and of neonatal deaths.[14] Psychological stress was reported by 40% during their pregnancy in this survey. Factors causing such stress were intense house hold work for 6-8 (34.5%) hours per day, economic instability (76.4% men had temporary earning of less than 5,000/month <51.33 USD/month), poverty, pressure for sons, and unbalanced

diet (50.9%). Along with malnutrition, maternal health is affected by manual labor (getting water and fuel for their households). Moreover, the fertility rates among such women are high. The high energy demands on poor women from their combined productive and reproductive roles together with malnutrition thus have a substantial impact on their health. This is further compounded by poor health care. Children born to underweight and stunted women are also likely to be underweight and stunted which affect their future potential at the individual and community level.[15]

Illiteracy, unskilled labor, poor living conditions, disparity among kids, preference for male child results as malnutrition, poor maternal health, antenatal and postnatal complications, inadequate care of newborn especially in the critical first 24 hours, eventually leads to an increase in perinatal mortality.

CONCLUSION:

It is not only important to make ante-natal care available but also acceptable and accessible. Controlling PNM requires long term commitment but a relatively early control can be sought by proper education regarding benefits of antenatal care and household surveillance programs. Provision of food and vitamin supplements for pregnant females and newborn, keeping the newborn warm, protected and early lactation education especially in the rural and outskirts of urban. Introducing 'Essential health care of new born' in every rural and primary health care centers and familiarizing females with the importance of first 24 hours post- delivery.

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