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ORIGINAL ARTICLE

Frequency of Maternal Factors in Patients of Stillbirth in Pakhtoon Families Visiting Public Hospitals of Peshawar

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ABSTRACT

Aim: To determine the frequency of maternal factors in patients of still birth in Pakhtoon families visiting hospitals of Peshawar.
Study design: Cross-sectional study
Place and duration of study: Department of Community & Preventive Medicine, Kabir Medical College Gandhara University Peshawar from 1stJanuary 2020 to 31stDecember 2020
Methodology: Five hundred pregnant women were enrolled. All multiparous pregnant women of Pakhtoon families with still birth admitted in Gynaecology wards in public hospitals of Peshawar were included. All multiparous pregnant women of Pakhtoon families with still births with renal diseases, accidental trauma, respiratory diseases and history of physical violence visiting public hospitals of Peshawar were excluded.
Results: 65% of respondents were from 31-45 years. Maternal risk factors were education below matric 64.4%, 7% respondents were working, 78% respondents with total income less than 30 thousand. 59.8% with last birth interval less than 2 years. 44% respondents had haemoglobin less than 7g/dl. 40.2% respondents had comorbidity with stillbirth i.e. hypertension.
Conclusion: Maternal risk factors were low socioeconomic status, birth interval less than 2 years, severe anemia and hypertension in current study.
Keywords: Still birth, Socioeconomic, Ante-partum hemorrhage

INTRODUCTION

According to WHO stillbirth is defined as death of the fetal before or during labour and birth with no sign or evidence of life, considered to be in 20 to 28 weeks with 350 to 1000g birth weight.[1] Globally among 2.6 million cases of stillbirths in which 98% delivered in developing countries every year whereas 3/1000 births in developed nations. In sub-Saharan Africa and Southern Asia the rate of the still birth was 10 times higher than other countries.[2]

In Pakistan, the prevalence of stillbirth is 32 among 1000 deliveries which make almost 167,040 stillbirths of country. However almost 2/3rd of females with still birth delivered at home and 62% delivered by untrained birth attendants.[3] New targets were laid down to cut down the prevalence of still birth for the *developing countries and agenda of* Sustainable *Development Goals* include <10 cases of stillbirths/000 of total births by 2035.[4]

Maternal risk factors for stillbirths were maternal age, low education, obstructed labour, placental abruption,pre-eclampsia.[5] Ante-partum hemorrhage, infection, prematurity, maternal accident, prolonged labour, cord prolapse and poor quality of health care services. Clinical and medical carelessness and some issues related with socio-cultural religious beliefs[5]and low socioeconomic status[6].

The major risk factors in patients of stillbirth identified in national surveys were Ante partum, absence of antenatal visits, Postpartum hemorrhage, hypertensive disorder and small-for-gestational age babies.[7] Mothers with birth interval <24 months, birth order more than 3, age of mothers >34 and<18 are risk factors in still birth patient[8] and cultural issues[9]. Anemia, prolonged labor, pre-eclampsia, eclampsia, placenta previa, abruptio placentae, and uterine rupture, as well as high risks such as breech presentations and twins[10]. Hypertension, diabetes, obesity, systemic lupus erythematosus, chronic renal disease, thyroid disorders, and cholestasis of pregnancy[11].
The healthy timings and spacing of pregnancies should be measured because of its great importance for mothers and newborns health. Hence role of health care providers in promoting health intervention are needed. The areas with high stillbirths and poor health services strategies should target the peri-partum period for maximal reduction[12].

The aim of this study was to find out maternal factors in patient of stillbirths in Pakhtoon families visiting public health care of Peshawar.

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MATERIALS AND METHODS

This cross-sectional study was carried out in public hospitals of Peshawar from 1st January 2020 to 31stDecember 2020 and comprised 500 pregnant women. All multiparous pregnant women complaining of still birth admitted in gynecology wards in three tertiary hospitals of Peshawar were included. All multiparous pregnant women with still births admitted in gynecology wards associated with renal diseases, accidental trauma, respiratory diseases and history of physical violence coming to tertiary hospitals of Peshawar were excluded. The sociodemographic profile, ante partum and postpartum haemorrhages, birth interval, hypertensive disorder were recorded. Hemoglobin recorded with the help of Sahli's hemoglobinometer. The data was entered and analyzed through SPSS-24.

RESULTS

Table 1: Sociodemographic characteristics of respondents (n=500)

Variables	No.	%
Maternal age (years)		
18 – 31	175	35.0
31 – 45	325	65.0
Educational status		
Below matric	322	64.4
Above matric	178	35.6
Occupation		
Yes	35	7.0
No	465	93.0
Total household income		
<30,000	390	78.0
>30,000	110	22.0
Place of residence		
Rural	395	79.0
Urban	105	21.0
Family system		
Nuclear	261	52.2
Joint	239	47.8

65% of respondents were from 31 to 45 years and 64.4% with education below metric, 7% had occupation, 78% respondents with total income less than 30 thousand and 79% lived in rural area.52.2% respondents had nuclear system (Table 1).

Table 2: Frequency of factors in still birth patients (n=500)

Variables	No.	%
Antenatal visits in previous pregnancies		
Nil	257	51.4
<2 visits	143	28.6
>2 visits	100	20.0
History of previous still birth		
Yes	22	4.4
No	478	95.6
Place of Delivery in previous pregnancies		
Home	297	59.4
Hospitals	203	40.6
Previously delivered by		
Dais	200	40.0
Lady health workers	138	40.0
Lady health visitor	162	27.6
Mode of delivery in previous pregnancy		
Normal vaginal deliveries	244	48.8
Vacuum delivery	154	30.8
Cesarean delivery	102	20.4
Last birth interval		
<2 years	299	59.8
>2 years	201	40.2
Use of family planning methods		
Yes	157	31.4
No	343	68.6

Table 3: Frequency of maternal factors in patients (n=500)

Variables	No.	%
Ante partum haemorrhages		
Yes	165	33.01
No	335	67.01
Postpartum haemorrhages		
Yes	190	34.0
No	310	62.0
Eclampsia		
Yes	193	39.0
No	306	61.0
Gestational diabetes		
Yes	191	38.2
No	309	61.8
Presentation of delivered baby		
Cephalic	211	42.2
Breech presentation	103	20.6
Shoulder presentation	76	15.2
Face presentation	23	4.6
Transverse lie	28	5.6
Oblique lie	59	11.8
Prolong labour		
Yes	199	39.8
No	301	60.2
Maternal infection		
Yes	102	20.4
No	398	79.6
Maternal accidents in previous pregnancies		
Yes	12	2.4
No	488	97.6
Maternal co morbidities		
Hypertension	201	40.2
Diabetes	88	17.6
Renal disorders	13	2.6
Heart diseases	39	7.8
Obesity	97	19.4
Systemic lupus erythematosus	03	0.6
Endocrine disorders	59	11.8
Anemia during pregnancy		
Hb >12g/dl	220	44
Hb <12g/dl	183	36.6
Hb <7 g/dl	97	19.4
Cord problems		
Yes	99	19.8
No	401	80.2

51.4% respondents had not taken antenatal visits in previous pregnancies,4.4% respondents had history of previously delivered still birth,59.4% previously had home delivery,40% previously delivered by Dais,48.8% respondents had previously normal vaginal delivery, 59.8% respondents had last birth interval less than 2 years.31.4% respondents had used family planning methods (Table 2).

There were 27% patient with the history of antepartum hemorrhages while 34% patient with postpartum hemorrhages and eclampsia in 39%. Patient with placental disorders were 22.4% while 44% had 12g/dl Hb while 19.8% patients with cord around the neck issues as shown in (Table 3).

DISCUSSION

Still birth is the public health issue related to gynecologicaland other risk factors, in the present study multiple maternal risk factors like maternal literacy, source of income, occupation,location were studies, many studies shown that low socioeconomic status is one of the most important risk factor for still birth.[13]Other study showed association between poor income and still birth.[14]

Study conducted in Nigeria showed similar results between mother with low education and stillbirth.[15] Similar finding manifested from studies of Ghana and Brazil.[16]Other comparative study reported that mother with low education status and low income had increased chances of still birth as compared to educated mothers with goodearnings.[17] It has been cleared from further findings that schooling tends to lessen the problems of low socioeconomic status amongst the illiterate mothers. Low educational status of mothers with low income has doubled the risk of perinatal deaths as compared to educated mothers with high income[18].

In Pakistan11% of women got secondary or higher education due to which it is difficult for them to recognize the risk factors of stillbirth, highly educated people were engaged to adopt healthy behaviors than people with low education. Education provide awareness among woman to select important health service regarding health promotion, still birth and risk factors associated with it, birth spacing, family planning and antenatal visits. Our study depicted that 59.8% respondents had last birth interval of<2 years. Studies in Nigeria and Uganda reported increased prevalence of short birth intervals.[19]Study in Iran concluded 86.6% women with birth interval of less than 2 years. These findings were similar with studies done in Asian and Latin American countries[20] and in Ethiopia.[21] In Northern Iran, Bangladesh, and Nigeria reported strong association between use of contraceptive methods and last birth intervals.[22] The reason of increased frequency was due to lack of maternal education particularly in this ethic group of KPK. Awareness program regarding contraceptive use in couple should be arranged and all the respondents should mention at least one advantage of optimal birth intervals and one disadvantage of short birth intervals. In Pakhtoon families of KPK, traditional and cultural norms, views and practices like male dominancy in the family and female with no independence are the different factors to adopt health services for themselves and for their kids. Women with poor income are at increased risk of diminished autonomy and therefore lack access to essential health care for themselves and their children, especially around pregnancy and birth. Decisions about health care utilization are often taken by the household elders, usually the males, rendering these women disempowered and exposing them to higher risks of complications leading to worse outcomes during pregnancy and birth.

Current study reported 51.4% respondents had not taken antenatal visits in previous pregnancies. Studies revealed that women had not taken antenatal visit regularly from nearby health care facility had four times increased chances to develop stillbirth. Similar results showed from studies in Northern Ethiopia and Nepal.[23,24]

In Nepal, 61 % of women had received proper antenatal visits and provide a screening opportunity for antepartum

hemorrhage, hypertensive disorder and treat the case with provision of future safety plan with proper counseling and health education to mothers, fathers and families to prevent future stillbirth.[24]

Major risk factor for stillbirth identified in current study was hypertension, similar result reported in another study of South Asia and China, Indonesia and Ethiopia.[25] The presence of hypertension increases the chances of a stillbirth during pregnancy or delivery. The common risk factors strongly associated with stillbirths was hypertension in stillbirths,[26] it appears that hypertension, antepartum hemorrhage contributed to the risk for stillbirth.[23] Hypertension in pregnancy is associated with stillbirths. This finding is matched with studies of Taiwan, Nepal, and England it is because in hypertensive mothers do not have adequate blood flow to the placenta as compared with the mothers with no sign of hypertension in pregnancy. Fall in blood pressure specially in second trimester of pregnancy and rise in third trimester so the fetus get less oxygen and less nutrients causing still birth.[27] Hypertensive pregnancies are responsible for 4-9% of all fetal deaths. The stillbirth rate is 5-52/1000 births, depending on the severity of complications from hypertension.[23] Women with hypertensive disorder during pregnancy are more likely to have placental compromise, and increased risk for fetal death.[28]

Tertiary health care facilities should offer essential and comprehensive obstetric care; deficiencies in staff competence have also been improved. Urgent need required to upgrade performance of health care system and reduce the adverse pregnancy outcomes even in Pakhtoon populations.

CONCLUSION

Stillbirths vary significantly by socio-demographic variables. The current results concluded that in order to achieve gain in child survival there is need to promote socioeconomic status, birth interval more than 2 years and avoid hypertension. Specific programs should be designed to target young women and men with family planning services.

Conflict of interest: Nil

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