PREVALENCE OF LOW BIRTH WEIGHT AMONG CESAREAN SECTION DELIEVERIES AT PMC HOSPITAL NAWABSHAH (SBA).

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ABSTRACT

Objectives
To determine the frequency of Low birth Weight among newborns delivered through cesarean section at PMC Hospital Nawabshah. **Material and Methods** This cross-sectional study was conducted from 23 October 2019 and completed on 04 March 2020 at Gynecology & Obstetric Department at Operation Theater of PMCH Hospital Nawabshah (SBA) after approval of Ethical Review Committee of the university. The 350 babies delivered through caesarian section in obstetric O.T of PMCH Nawabshah (SBA) were observed by convenience sampling. Weight of delivered baby was measured by analog weight machine within first hour of birth. All the variables were documented in well-structured questionnaire. The data was entered and analyzed by using SPSS Version 24.00. The results are presented by tables, charts and graphs. **Results:** The results of this research revealed the prevalence of low birth Weight babies 46% delivered among C-section in PMC Hospital Nawabshah city. The associated risk factor of LBW was high in the age group below 20 years 62.5%, Women with less education 48.8%, women with less husband's education 50%. **Conclusion** The prevalence of low birth weight is 46% which is striking and alarming and more than the national prevalence. Proper intervention in health education should be done to decrease the magnitude of Low Birth Weight.

Key Words: Prevalence, Low birth weight, Caesarean Section, Pregnancy, Nawabshah.

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INTRODUCTION

Birth weight should be measured during the first hour of life. Less than 2500 grams up from 2,499 grams irrespective of gestational age is called LBW. It can be divided into very LBW (<1500 grams) and extremely LBW (<1000 grams). LBW is mainly associated with childbirth (before 37 weeks of pregnancy) or due to retarded intrauterine growth.[1]Low Birth weight is worldwide common public health issue, Globally Low birth weight (LBW) contributes to 40–60% of new born mortality. [2] LBW is related to many socio-economic factors like residence rural and urban), mother's age and occupation, family's income, birth order, and various maternal health conditions. For example, nutrition status, health status, and mother's education.[3, 4]LBW is often associated with premature birth and IUGR even at Thirty-seven weeks of pregnancy. The unborn have little time to grow and gain weight in the uterus. A significant portion of the baby's weight is found during the last trimester of pregnancy. [5]The second reason for LBW is intrauterine growth retardation.[6] This is when the infant is not developing well during gestation. This could be due to the placenta, maternal exercise, or infant health problems.Full term means that between 37 to 41 weeks of pregnancy. These infants can be fully developed but with LBW. [7]Notwithstanding preterm and intrauterine growth retardation, things that influence the gravid mother can build the danger of having an LBW infant. They consist of history of infection during pregnancy, during pregnancy not getting sufficient weight in the last pregnancy history of LBW. During pregnancy history of smoking, during pregnancy addiction to drugs and alcohol, below 17 years of age or above 35 years of age.[8]More than 20 million infants worldwide, representing 15.5 percent of all births are born with low birth weight among them 95.6% reported in developing countries. The level of low birth weight in developing countries 16.5 % is more than double the level in developed regions that is 7 % [9-10.] However, this differs from region to region. Most infants with LBW are full-term infants. Preterm infants have a greater risk of dying than concerning full-term babies. Regional estimates of Low birth weight (LBW) include 28% in south Asia, 13% in sub-Saharan Africa and 9% in Latin America. Among regions, South Asia has the highest incidence of Low birth weight (LBW), with one in four new born has Low Birth Weight.[11]Pakistan has one of the highest global burdens of Low birth weight (LBW), ranging from 19% in urban areas to 32% in rural areas. [12] These high rates contribute towards both the high neonatal mortality (58 per 1000 live birth) and the high stunting rates (44%) in children aged < 5 years[13].while National Nutrition Survey 2018 shows 40.2% of the children under 5 years are stunted. Low birth weight (LBW) due to its adverse health consequences played a key role in hindering Pakistan's progress towards achievement of the Millennium Development Goal 4[14]. A study

conducted at LUH Hyderabad revealed that out of 1511 babies were born during study period, 565 (37.4%) of them were found to be Low birth weight (LBW)[15]. C-section is one of the most common surgeries in the worldwide. It is a surgical procedure usually performed to save maternal and fetal life and to prevent complications during labour. The World Health Organization says the cesarean section rate should not be more than 10-15%8. Worldwide the rate of cesarean section increased in the recent century.[16]C-section is one of the most common surgeries in the worldwide. It is a surgical procedure usually performed to save maternal and fetal life and to prevent complications during labour. The World Health Organization says the cesarean section rate should not be more than 10-15%. Worldwide the rate of cesarean section increased in the recent century.[17]Cesarean, also called Cesarean or Cesarean delivery, is a life-saving procedure that minimizes female mortality. Cesarean delivery is sometimes done when it is even not needed, and it creates health issues for mothers and their newborn babies. The ideal method of delivery for very LBW babies remains controversial. Cesarean section delivery is common mainly in preterm; there is no history of benefits to the infants.[18]LBW is the main risk of morbidity and mortality in infants of Pakistan. In 2017, the US Agency for International Development, International reports concerned about the problem have reported a 32% prevalence of LBW in Pakistan[2-3]. The aim and objectives of this study were to identify the frequency and related risk factors of LBW babies among the cesarean section in Nawabshah and its surroundings.

MATERIAL AND METHODS:

This cross-sectional study was conducted from 23 October 2019 and completed on 04 March 2020 at Gynecology & Obstetric Department at Operation Theater of PMCH Hospital Nawabshah (SBA) after approval of Ethical Review Committee of the university. The 350 babies delivered through caesarian section in obstetric O.T of PMCH Nawabshah (SBA) were observed by convenience sampling. Proper interview of the mother by herself and careful assessment of birth weight. Weight of delivered baby was measured by analog weight machine within first hour of birth. A standardized questionnaire was administered containing the variables age, parity, residence, educational status etc. Then the weight of baby was measured by analogue weight machine. Confounding factor like Congenital Malformation, Still Birth was controlled by exclusion criteria. The data was entered and analyzed statistically by using SPSS Version 25.00. The all quantitative variables were analyzed by T-Test and all categorical data was analyzed by Chi-square Test. The data is presented by graphs and charts.

RESULT

Graph No: 1. Prevalence Low Birth Weight
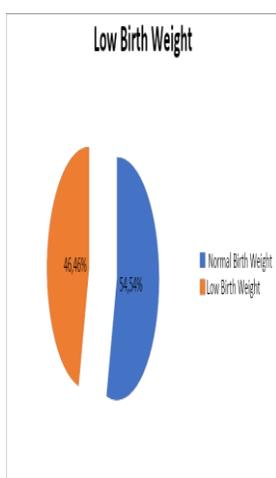
Table 1. Age and residence of mother				
Age of Mother	Low Birth Weight			
	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Below 20 years	10	62.5	6	37.5
20-30 years	15	37.5	25	62.5
30-40 years	64	44.4	80	55.6
Above 40 years	72	48.5	78	52
Total	161	46	189	54
Residence **of Mother**				
Urban	45	39.1	70	60.9
Rural	116	49.4	119	50.6
Total	161	46	189	54

Table No: 2. Educational Status of Mother Father

Educational status of Mother	Low Birth Weight			
	Yes		No	
	Frequency	Percentage	Frequency	Percentage
Illiterate	76	57.1	57	42.9
Primary	60	48.8	63	51.2
Secondary	24	27.9	62	72.1
Higher	1	12.5	7	87.5
Total	161	46	189	54
Educational status of Father				
Illiterate	20	54.1	17	45.9
Primary	50	50	50	50
Secondary	85	45	104	55
Higher	6	25	18	75
Total	161	46	189	54

161 (46%) babies were found to be Low Birth Weight from 350 babies delivered through cesarean section Prevalence of lbw 62.5%is highest in those women who are current age is below 20 and 48.5% in those women who is age above 40 years and 37.5% in age group of 20-30 years. Prevalence of LBW in women from rural communities was 49.4% and in urban communities was 39.1%. Prevalence of LBW in illiterate mothers was 57.1%, in women with primary education was 48.8% and in women with higher education was 12.5%. Prevalence of LBW in babies with illiterate father was 54.1% than 50% in babies with father having primary educated father and in higher educated father is 25%.from graph 1 and table 1-2.

DISCUSSION

The study was conducted at PMC Hospital in the city of Nawabshah. All babies delivered by the caesarian section including the weight of babies by analog weight machine within the first-hour duration of life and interview of mother conducted by prescribed questionnaire.According to different surveys and studies LBW, babies in Pakistan are 32%, and 19.3% of LBW babies are in Sindh province. [19]This study reflects that 46% of LBW among C/S deliveries are from city Nawabshah. It is due to a proper interview of the mother by herself and careful assessment of birth weight done through an analog weight machine. The current analysis is a hospital-based analysis in which major population covers those who come in government hospitals during that period.In this study, women belong to the age group below 20 years who delivered 62.5% LBW among cesarean section and 20-30 year's age group mothers deliver 48% LBW, from the age group 30-40 years among which 44.4% were LBW and above 40 years of age having 37.5% of LBW.A hospital-based study in eastern Taiwan reported that teenage mothers give birth to babies of significantly LBW than adult mothers (19% - 9%) respectively[20]. LBW data regarding the age of the mother of Taiwan based research and in my study is identical because teenage mothers do not care for herself in nutrition, proper ANC in all over the world. Specifically, in Pakistan, our culture, taboos, and customs affect the health of young mothers. Our study showed that 39.1% had LBW babies are living in urban areas of district Nawabshah and 49.4% of babies LBW are in a rural community . A study conducted in India shows the proportion of LBW is 23% for rural communities and 19% for the urban population. LBW data regarding the residence of the mother of Indian based research and in our study is identical This may be due to a busy life routine which leads to a lack of self-care or it may be due to lack of proper health education[21, 22]. The findings of this study show that education has a direct correlation with LBW. 57.1% LBW delivered by illiterate mothers, 48.8% of women with primary education, and 54.1% LBW babies delivered by women whose husbands are illiterate. 50% LBW babies delivered by women whose husbands are educated up to primary level, LBW babies which is approximately like other studies conducted worldwide. LBW is a critical health issue in Pakistan. According to the Pakistan demographic & Health Survey (PDHS) published in JCPSP Volume 26 in 2016[16]. A study conducted in Nigeria the prevalence of LBW was significantly higher primy gravidae than in multigravida 6.3% vs 4%. LBW data regarding parity of mother of Nigeria based research and our study is identical.[23] Percentage of LBW children decreased if the level of education of mothers increased by 22.0% illiterate and 17.2% are primary. So, a similar pattern seems in father education. Only widespread health education is a way to prevent this explosion. Normal birth weight has been considered very necessary for the health of mothers and infants. Percentage of LBW children decreased if the level of education of mothers increased by 22.0% illiterate and 17.2% are primary. So, a similar pattern seems in father education. Only widespread health education is a way to prevent this explosion. Normal birth weight has been considered very necessary for the health of mothers and infants. Few current studies proved that in Pakistan, the fertility rate has declined, and the contraceptive prevalence rate is also going to be improved but still more than 50% of the population requires more than 2 children with baby boy preference.[24] Pakistan has a very low literacy rate especially in rural areas. Education and healthy environment perform an important role in women's life and remains helpful in decision-making moments. Various studies showed that education, residence and the age of pregnancy are the main factors associated with LBW deliveries.[22]

CONCLUSION

The current study indicates that the prevalence of LBW among the caesarian section in PMC Hospital Nawabshah city of district Shaheed Benazirabad is 46%. The study demonstrates that literacy and parity play a key role to decrease the rate of LBW babies. The prevalence of LBW was significantly associated with the educational status of father, educational status of the mother. The better health services, and chances of employment, good social behavior, and a healthy attitude of thinking can help to reduce the prevalence of LBW babies in Pakistan.

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