PREGNANCY OUTCOME IN UN-BOOKED PATIENTS PRESENTING AT CIVIL HOSPITAL, BAHAWALPUR

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Abstract:

Objective: To assess the pregnancy outcome in un-booked patients presenting at Civil Hospital, Bahawalpur.

Material and Methods: This cross sectional study was conducted at Department of Obstetrics & Gynecology, Civil Hospital, Bahawalpur from November 2018 to May 2019 over the period of 6 months. Total 332 unbooked obstetric patients having age from 18-35 years, primary or multi paras were selected for this study and pregnancy outcome was assessed.

Results: Mean age of the un-booked patients was 25.22 ± 5.36 years. Out of 332 un-booked patients, vaginal deliveries were 202 (60.84%) and c-section was performed in 130 (39.16%) patients. In age group 18-27 years, c-section was done in 85 (37.44%) patients and vaginal deliveries were 142 (62.56%) patients. No association of mode of delivery with age group was found with p value 0.347. Primary paras were 185 (55.72%) and multiparas were 147 (44.28%). Caesarean section was done in 79 (42.70%) primary paras and in 51 (34.70%) multiparas. Vaginal deliveries were done in 106 (57.30%) primary paras and 96 (65.30%) multiparas. Statistically insignificant association between mode of delivery and parity was noted with p value 0.138.

Conclusion: Results of present showed that among the un-booked cases, mode of delivery in most of the cases was vaginal. No association of mode of delivery with age, monthly income, area of residence and parity was noted. Most of the un-booked cases were educated but association of mode of delivery with education was not significant statistically.

Key Words: Unbooked, antenatal care, booked, parity, Obstetric complications

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INTRODUCTION:
Maternal mortality and morbidity is a global problem and the problem is more intense in the third world. Amongst the many other interventions provision of antenatal care is one of the major targets of maternal health care providers.[1] Although the developed world has succeeded to achieve this goal, the third world is still facing problems in this respect due to reasons like poverty, lack of awareness and lack of provision of health services. Pregnancy is one of the most important period in the life of a woman, extraordinary care is therefore, required in these patients as booking status is one of the main contributors of maternal morbidity.[2-3] Moreover lack of booking is associated with a higher risk of perinatal morbidity and mortality.[4] Antenatal care provides early risk assessment and monitoring thus improving obstetric outcomes. This is of particular significance for the more underprivileged segments of society.[5] Improved antenatal care is necessary for early diagnosis and treatment of important medical conditions like anemia. However, still large proportions of expectant mothers do not attend the antenatal clinics and thus contribute to adverse obstetric outcome. Various studies have confirmed the positive influence of antenatal care on maternal and peri-natal outcomes.[6] In the light of maternal and fetal morbidity and mortality it is pertinent to determine the relationship between the booking status of the mother and maternal health outcomes.[7]

There is a high turnover of obstetric patients in south Punjab health care facilities with increasing number of un-booked obstetric cases. This study may help to reduce their morbidity and mortality in prevailing poor socio economic and low literate population of this region.

OPERATIONAL DEFINITION
Un-booked cases:
Women who have never attended or attended antenatal clinics only once or twice were considered as un-booked cases.

Outcome: Outcome was characterized as mode of delivery vaginal delivery or by caesarean section.

MATERIAL AND METHODS:
This cross sectional study was conducted at Department of Gynaecology, Civil Hospital, Bahawalpur from November 2018 to May 2019 over the period of 6 months. Total 332 unbooked obstetric patients having age from 18-35 years primary or multi paras were selected for this study. Patients having age greater than 35 years, with any systemic disease as per history and medical record, patients with ruptured uterus and patients with 2 or more c-sections were excluded from the study.

Ethical approval was taken from review committee of the hospital before commencement of study and written informed consent was taken from every patient. Demographic profile of all the patients noted and physical examination was done. Caesarean section was performed in case of fetal or maternal complication. Mode of delivery was noted on pre-designed proforma as Cesarean Section or vaginal delivery. Income status, area of residence, education status and parity was also noted on proforma.

All the data was entered on computer software SPSS version 16. Age was presented as mean and standard deviation. Outcome (in term of mode of delivery vaginal or by caesarean section), Income status, education status of the patients (educated or un-educated) and parity (primary para or multi para) were presented as frequency and percentages. Stratification was done for age, income status and residential area and education status. Post stratification chi-square test was applied. P value ≤0.05 was considered as significant.

RESULTS:
Mean age of the un-booked patients was 25.22 ± 5.36 years. Out of 332 un-booked patients, vaginal deliveries were 202 (60.84%) and c-section was performed in 130 (39.16%) patients. (Fig. 1)

Selected patients were divided into two age groups, age group 18-27 years and age group 28-35 years. Total 227 (68.37%) patients belonged to age group 18-27 years and 105 (31.63%) patients belonged age group 28-35 years. In age group 18-27 years, c-section was done in 85 (37.44%) patients and vaginal deliveries were 142 (62.56%). No association of mode of delivery with age group was found with p value 0.347. (Table 1)

Total 175 (52.71%) patients have Rs. <15000 monthly income. In this group **Caesarean section was done in** 72 (41.14%) patients and vaginal deliveries were 103 (58.86%). Income of 107 (32.22%) patients was between 15001-30000 rupees monthly. In 37 (34.58%) patients mode of delivery was caesarean section and in 70 (65.42%) patients was vaginal. The income of 50 (15.06%) patients was >30000 rupees/month and frequency of **caesarean section was** 21 (42%) and vaginal deliveries were 29 (58%). Statistically insignificant association of mode of

delivery with monthly income was noted with p value 0.496. (Table 2)

Out of 216 (65.06%) patients of rural area, caesarean section was done in 89 (41.20%) patients and vaginal deliveries were in 127 (58.80%) patients. Mode of delivery by caesarean section and vagina was in 41 (35.34%) patients and 75 (64.66%) patients respectively. Association of mode of delivery with area of residence was not statistically significant with p value 0.297. (Table 3)

Primary paras were 185 (55.72%) and multiparas were 147 (44.28%). Caesarean section was done in 79 (42.70%) primary paras and in 51 (34.70%)

multiparas. Vaginal deliveries were done in 106 (57.30%) primary paras and 96 (65.30%) multiparas. Statistically insignificant association between mode of delivery and parity was noted with p value 0.138. (Table 4)

Among the 68 (20.48%) un-educated patients, frequency of caesarean section and vaginal deliveries were 33 (48.53%) and 35 (51.47%) respectively. Out of 264 (79.52%) educated patients, vaginal deliveries were done in 167 (63.26%) patients and caesarean section was performed in 97 (36.74%) patients. But the difference was not significant with p value 0.076. (Table 5)
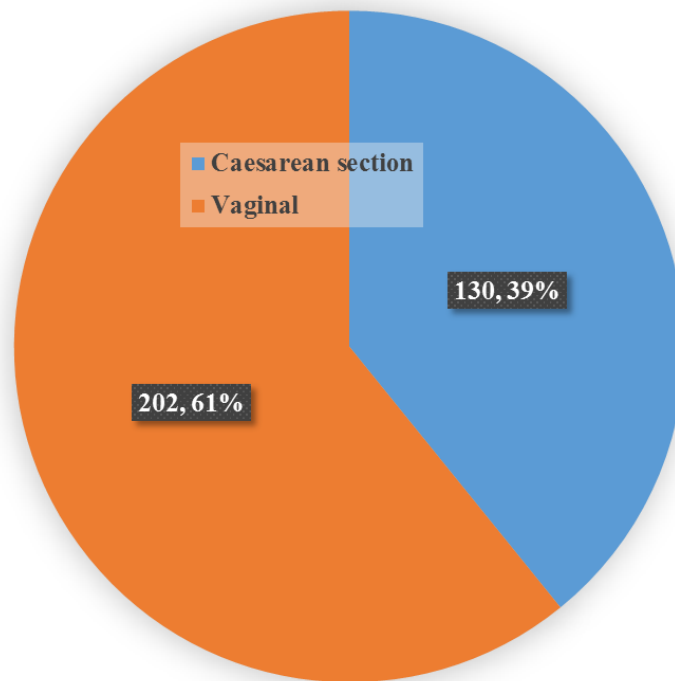
Fig. 1: Mode of delivery

Table 1: Association of mode of delivery with age group

Age	Mode of delivery		Total	P. value
	Caesarean section	**Vaginal**		
18-27	85 (37.44%)	142 (62.56%)	227 (68.37%)	0.347
28-35	45 (42.86%)	60 (57.14%)	105 (31.63%)	
Total	130 (39.16%)	202 (60.84%)	332	

Table 2: Association of mode of delivery with income

Income	Mode of delivery		Total	P. value
	Caesarean section	Vaginal		
<15000	72 (41.14%)	103 (58.86%)	175 (52.71%)	
15001-30000	37 (34.58%)	70 (65.42%)	107 (32.22%)	0.496
>30000	21 (42%)	29 (58%)	50 (15.06%)	
Total	130 (39.16%)	202 (60.84%)	332	

Table 3: Association of mode of delivery with area of residence

Area of residence	Mode of delivery		Total	P. value
	Caesarean section	Vaginal		
Rural	89 (41.20%)	127 (58.80%)	216 (65.06%)	
Urban	41 (35.34%)	75 (64.66%)	116 (34.94%)	0.297
Total	130 (39.16%)	202 (60.84%)	332	

Table 4: Association of mode of delivery with parity

Parity	Mode of delivery		Total	P. value
	Caesarean section	Vaginal		
Primary Para	79 (42.70%)	106 (57.30%)	185 (55.72%)	
Multipara	51 (34.70%)	96 (65.30%)	147 (44.28%)	0.138
Total	130 (39.16%)	202 (60.84%)	332	

Table 5: Association of mode of delivery with education

Education	Mode of delivery		Total	P. value
	Caesarean section	Vaginal		
Un-educated	33 (48.53%)	35 (51.47%)	68 (20.48%)	
Educated	97 (36.74%)	167 (63.26%)	264 (79.52%)	0.076
Total	130 (39.16%)	202 (60.84%)	130 (39.16%)	

DISCUSSION:

Inaccessibility or accesses to poor quality of health care are primarily responsible for maternal mortality throughout the world. In the recent years, maternal health care has become one of the key points in the health care service deliveries in developed countries and as a result, these countries managed to achieve significant results in reducing maternal mortality and morbidity.[8]

Many countries have responded to address this problem. Antenatal care is an intervention aimed at

pregnant women to ensure the best possible outcome for both the mother and the baby. WHO recommends antenatal care as one of the interventions with an objective to decrease maternal and perinatal fatalities and recommends a minimum of four visits for a satisfactory level of antenatal care.[9]

Women should get booked as early as pregnancy is detected so that they can be screened for problems, risks can be reviewed and medicines can be provided that may improve the maternal and perinatal outcome.[10] A woman is generally considered as booked if she had a minimum of two antenatal visits at least two weeks prior to delivery and had antenatal booking labs taken.[11] Despite all the benefits of regular antenatal care, late bookings and missed visits do occur. There are still some pregnant women who present to the health facility to deliver without ever attending any antenatal care. Some of the reasons for late bookings include the following: younger age, primigravidae, multigravida, single parent, low socio-economic status, unemployment, time constraints and for some women, the distance from the health care facility are factors responsible for being un-booked.[12]

We conducted this study to assess the pregnancy outcome in un-booked patients presenting at Civil Hospital, Bahawalpur. In our study out of 332 un-booked patients, vaginal deliveries were 202 (60.84%) and c-section was performed in 130 (39.16%) patients. In a study by Ishtiaque et al,[13] unbooked mothers had more vaginal deliveries as compared to booked cases. Mean age of the un-booked patients was 25.22 ± 5.36 years. Total 227 (68.37%) patients belonged to age group 18-27 years and 105 (31.63%) patients belonged age group 28-35 years. In age group 18-27 years, c-section was done in 85 (37.44%) patients and vaginal deliveries were 142 (62.56%). No association of mode of delivery with age group was found with p value 0.347. In one study by Larsen et al[14] mean age of un-booked obstetric patients was 28.2±5.80 years which is comparable with our study. A Nigerian study also reported that their unbooked mothers were younger (26.0±6.68).[15] This difference is probably explained by the fact that in Pakistan marriages occur at a younger age and thus even the young mothers may get themselves booked. And at the same time, due to the low socioeconomy status, lack of education and lack of female empowerment for decision making, many of the older women may be deprived to the access the health care.

In one study the analysis of demographic factors among booked and unbooked mothers showed that young age (p<0.001; 21-25 yrs) of mothers along with lack of awareness regarding importance of antenatal care & lack of education especially health education might have withdrawn them from taking antenatal care at an early gestational age or till the development of obstetric complication which had led them to fall into unbooked group.[16] This issue is also documented by other studies which concluded that women who are less than 25yrs old and less educated are more likely to register late.[17]

In present study, total 175 (52.71%) patients have Rs. < <15000 monthly income. In this group Caesarean section was done in 72 (41.14%) patients and vaginal deliveries were 103 (58.86%). Income of 107 (32.22%) patients was between 15001-30000 rupees. In 37 (34.58%) patients mode of delivery was caesarean section and in 70 (65.42%) patients was vaginal. The income of 50 (15.06%) patients was >30000 rupees and frequency of caesarean section was 21 (42%) and vaginal deliveries were 29 (58%). Statistically insignificant association of mode of delivery with monthly income was noted with p value 0.496. Mothers with low socioeconomic scale used to deliver more frequently at home with no trained health attendant in the developing world.[18] On the other side, mothers of high socioeconomic scale had higher number in booked group (26.20%) as compared to their counterpart group (08.63%). It reveals that financial issue which includes cost of antenatal services and transportation might be cited as one of the factor affecting utilization of antenatal care.[19] Similar results are also reported by some other studies.[7,20]

In our study, primary paras were 185 (55.72%) and multiparas were 147 (44.28%). Caesarean section was done in 79 (42.70%) primary paras and in 51 (34.70%) multiparas. Vaginal deliveries were done in 106 (57.30%) primary paras and 96 (65.30%) multiparas. Statistically insignificant association between mode of delivery and parity was noted with p value 0.138. These findings are comparable with study by Fawcus et al.[21] This shows primiparous mothers are high risk patients. Comprehensive antenatal care should be provided to this group of patients to have better maternal and neonatal outcomes. In one study,[13] majority of the primigravidae (90%) were unbooked (48/53primigravidas) ,while multigravidas were mostly booked (56%) i.e 195/347. Findings of another study is in contrast with our study where majority of nonbooked patients were multiparas.[22]

CONCLUSION:
Results of present showed that among the un-booked cases, mode of delivery in most of the cases was vaginal. No association of mode of delivery with age,

monthly income, area of residence and parity was noted. Most of the un-booked cases were educated but association of mode of delivery with education was not significant statistically.

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