

# An Audit of Un-booked Obstetric Patients and Their Outcome

Un-booked  
Obstetric  
Patients and  
Their Outcome

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## ABSTRACT

**Objective:** To assess the un-booked obstetric patients and their outcome presenting at Sheikh Zaid Hospital Rahim Yar Khan.

**Study Design:** Cross sectional study

**Place and Duration of Study:** This study was conducted at the Department of Obstetrics & Gynecology Sheikh Zaid Hospital Rahim Yar Khan from March 2016 to September 2016.

**Materials and Methods:** Total 182 un-booked obstetric patients having age 18 to 35 years were selected. Patients having age >35 years, patients with any systemic disease like diabetes mellitus and hypertension on previous medical record, patients with ruptured uterus on the basis of history and examination, patients with 2 or more C-sections were excluded from the study. Women who have never attended or attended antenatal clinics only once or twice were considered as un-booked cases.

**Results:** Mean age of the patients was  $26.87 \pm 6.49$  years. Total cases 82 (45%) were booked and un-booked cases were 100 (55%). Total vaginal deliveries were 71 (39%) and caesarean section was performed in 111 (61%) cases. Family income of 97 (53%) cases was Rs. <15000, family income of 57 (31.3%) cases was Rs. 15001 – 30000 and family income of 28 (15.4%) cases was Rs. >30000. Total 101 (55%) cases were primary para and 81 (45%) cases were multipara, 116 (64%) belonged to rural area and 66 (36%) belonged to urban area.

**Conclusion:** In present study, high percentage of un-booked obstetric patients was noted and in most of the cases c-section was performed. Insignificant association of mode of delivery with age, income status, area of residence and parity was noted. But significant association between education status and mode of delivery was observed.

**Key Words:** Un-booked, parity, antenatal care, Booked, Obstetric complications

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## INTRODUCTION

Antenatal care is a perfect example of preventive medicine. The aim is to ensure the well-being of mother and child. The basic components of antenatal care have been defined as early and continuous risk management, health promotion, psychosocial intervention and follow-up.

Antenatal care is an important determinant of high maternal mortality rate and one of the basic components of maternal care on which life of mothers and babies depends.<sup>2,3</sup>

Several studies conducted in developing countries on demographic and socio-cultural factors influencing the use of maternal health care services, have shown that factors like maternal age, number of living children, education, place of residence, occupation, religion and

ethnicity are significantly associated with the use of antenatal care.<sup>4,2</sup>

The other factors like poor state of health services, widespread ignorance, pervading superstitions, traditional beliefs and customs and high hospital bills tend to make traditional medicine and faith based practices arguably more popular than orthodox obstetric practice in our communities. Evidence based medicine indicates that most pregnancy related maternal deaths could be averted with access to professional care during pregnancy and delivery care and puerperium, as well as access to emergency obstetric care in the event of complication.<sup>5</sup>

Conversely, various studies have associated lack of proper antenatal care with adverse maternal outcomes.<sup>6</sup> Further, a study done in Nigeria has concluded that no antenatal care, parity, level of education, and mode of delivery were significantly associated with maternal mortality. While, Low maternal education, high parity, emergency caesarean delivery, and high risk patients risk independently predict maternal mortality.<sup>7</sup>

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. As this aspect is not studied locally.

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**MATERIALS AND METHODS**

This cross sectional study was conducted at Department of Obstetrics & Gynecology Sheikh Zaid Hospital Rahim Yar Khan from March 2016 to September 2016. Total 182 un-booked obstetric patients having age 18-35 years both primary and multi paras were selected for this study. Patients having age >35 years, patients with any systemic disease like diabetes mellitus and hypertension on previous medical record, patients with ruptured uterus on the basis of history and examination, patients with 2 or more C-sections were excluded from the study.

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

An approval was taken from the institutional review committee of the hospital and written informed consent was taken from every patient.

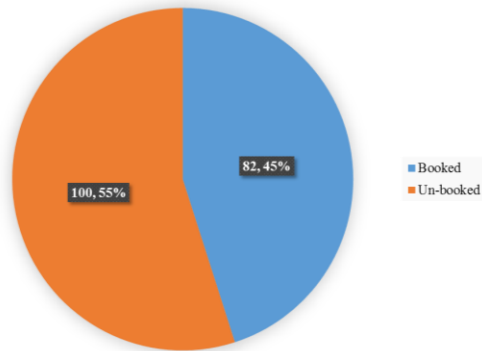
Physical examination of all the patients was done and history was taken. Caesarean section was performed in case of fetal or maternal complication. Mode of delivery was noted on pre-designed proforma as Cesarean Section or vaginal delivery. Demographic profile of all the patients along with booking status, income status, area of residence, education status and parity was noted on proforma.

All the data was entered in SPSS version 18. The quantitative variables of the study i.e. age and gestational age were presented as Mean ± SD. The qualitative variables like booking status (booked or un-booked) 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, education status and mode of delivery. Post stratification chi-square test was applied. P value ≤0.05 was considered as significance.

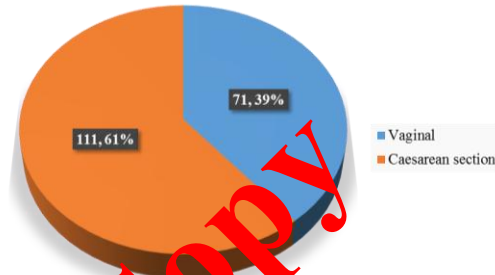
**RESULTS**

In present study mean age of the patients was 26.87 ± 6.49 years. Out of 182 cases, booked cases were 82 (45%) and un-booked cases were 100 (55%). (Fig. 1) Total vaginal deliveries were 71 (39%) and caesarean section was performed in 111 (61%) cases. (Fig. 2)

Stratification of mode of delivery in relation to age was done and two groups were made, age group 18-27 years and age group 28-35 years. Total 124 (60.13%) patients were belonged to age group 18-27 years and 58 (31.87%) patients belonged to age group 28-35 years. Vaginal delivery was done in 45 (36.29%) cases and 26 (44.83%) cases of age group of 18-27 years and 28-35 years respectively. Age of the patients was insignificantly (P = 0.3281) associated with mode of delivery. (Table 1)



**Figure No.1: Frequencies for booking status**



**Figure No.2: Frequencies for mode of delivery**

**Table No.1: Stratification for mode of delivery in relation to age**

Age	Mode of delivery		Total	P. value
	Vaginal (%)	caesarean section(%)		
18-27	45(36.29)	79(63.71)	124(60.13)	0.3281
28-35	26(44.83)	32 (55.17)	58(31.87)	
<b>Total</b>	<b>71 (39)</b>	<b>111 (61)</b>	<b>182</b>	

**Table No.2: Stratification for mode of delivery in relation to income status**

Income status	Mode of delivery		Total	P. value
	Vaginal (%)	caesarean section(%)		
<15000	40(41.24)	57(58.76)	97(53.3)	0.5627
15001-30000	19(33.33)	38(66.67)	57(31.3)	
>30000	12(42.86)	16(57.14)	28(15.4)	
<b>Total</b>	<b>71(39)</b>	<b>111(61)</b>	<b>182</b>	

**Table No.3: Stratification for mode of delivery in relation to residential area**

Residential area	Mode of delivery		Total	P. value
	Vaginal (%)	caesarean section(%)		
Rural	48 (41.38)	68 (58.62)	116 (63.74)	0.4313
Urban	23 (34.85)	43 (65.15)	66 (36.26)	
<b>Total</b>	<b>71 (39)</b>	<b>111(61)</b>	<b>182</b>	

**Table No.4: Stratification for mode of delivery in relation to education status**

Education status	Mode of delivery		Total	P. value
	Vaginal (%)	caesarean section (%)		
Un-educated	18 (48.65)	19 (51.35)	37 (20.33)	<b>0.044</b>
Primary	25 (48.08)	27 (51.92)	52 (28.57)	
Middle	12 (36.36)	21 (63.64)	33 (18.13)	
Matric	10 (38.46)	16 (61.54)	26 (14.29)	
Intermediate	2 (9.52)	19 (90.48)	21 (11.54)	
Above Intermediate	4 (30.77)	9 (69.23)	13 (7.14)	
<b>Total</b>	<b>71 (39)</b>	<b>111 (61)</b>	<b>182</b>	

**Table No.5: Stratification for mode of delivery in relation to parity**

Parity	Mode of delivery		Total	P. value
	Vaginal (%)	caesarean section (%)		
Primary Para	43 (42.57)	58 (57.43)	101 (55.5)	<b>0.2882</b>
Multipara	28 (34.57)	53 (65.43)	81 (44.5)	
<b>Total</b>	<b>71 (39)</b>	<b>111 (61)</b>	<b>182</b>	

Out of 182 patients, 97 (53.3%) patients belonged to Rs. <15000 income group and vaginal delivery was performed in 40 (41.24%) patients. Total 57 (31.3%) patients belonged to income group 15001 to 30000 and vaginal delivery was performed in 19 (33.33%) patients and 28 (15.4%) patients belonged to income group >30000 and vaginal delivery was performed in 12 (42.86%) patients. (Table 4)

Stratification of mode of delivery was done in relation to area of residence. Total 116 (63.74%) patients belonged to rural area and 66 (36.26%) patients belonged to urban area. Vaginal deliveries were done in 48 (41.38%) in patients of rural area and 23 (34.85%) vaginal deliveries were done in patients of urban area. Insignificant ( $P = 0.4313$ ) association between mode of delivery and residential area was observed. (Table 3)

Stratification of mode of delivery in relation to education status was done. Total 37 (20.33%) patients were un-educated followed by primary pass were 52 (28.57%), middle (33 (18.13%), matric 26 (14.29%) intermediae 21 (11.54%) and above intermediate 13 (7.14%). Vaginal deliveries were performed in 18 (48.65%), 25 (48.08%), 12 (36.36%), 10 (38.46%), 2 (9.52%) and 4 (30.77%) in un-educated, primary, middle, matric, intermediate and above intermediate

patients. Significant ( $P = 0.044$ ) association between education status and mode of delivery was noted. (Table 4)

Out of 182 patients, primary para was 101 (55.5%) and multipara was 81 (44.5%). Vaginal deliveries were performed in 43 (42.57%) primary para and 28 (34.57%) patients multipara. Insignificant ( $P = 0.2882$ ) association between mode of delivery and parity was noted (Table 5).

## DISCUSSION

The purpose of present study was to assess the un-booked obstetric patients and their outcome. In this study out of 182 cases, booked cases were 45% and un-booked cases were 55%. In one study by Kaur et al,<sup>9</sup> the frequency of un-booked obstetric cases was 58%. Findings of this study is comparable with our study. Similarly Adelaja et al<sup>10</sup> reported frequency of un-booked cases as 60.3%. Emole-Ohonsi A et al<sup>11</sup> reported high percentage (89.1%) of un-booked obstetrics patients.

In present study, most (53.30%) of the women belonged to low socio economic status. Mothers with low socioeconomic scale used to deliver more frequently at home with untrained health attendant in the developing world.<sup>12</sup> On the other side, mothers of high socioeconomic scale had higher number in booked group (26.20%) as compared to their counterpart group (0.63%). 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.<sup>13</sup>

In this study 51.49% women were un-booked and 37.04% multipars were un-booked which is comparable with study by Fawcus et al.<sup>14</sup> 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.<sup>15</sup>

In present study, total vaginal deliveries were 39% and caesarean section was performed in 61% cases. In one study, Kaur et al<sup>9</sup> reported caesarean deliveries as 66.67% and vaginal deliveries as 33.34% which is comparable with our findings.

In present study, a higher number of patients belonged to younger age group. Most of the deliveries performed by caesarean section. No association ( $P = 0.3281$ ) was detected between mode of delivery and age of the patients.

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 un-booked group.<sup>9</sup> 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.<sup>16-17</sup>

## CONCLUSION

In present study, high percentage of un-booked obstetrics was noted and in most of the cases c-section was performed. Insignificant association of mode of delivery with age, income status, area of residence and parity was noted. But significant association between education status and mode of delivery was observed.

### Author's Contribution:

Concept & Design of Study: Sadia Zahoor  
 Drafting: Iffat Yasmin  
 Data Analysis: Nadia Zaman  
 Revisiting Critically: Iffat Yasmin  
 Final Approval of version: Sadia Zahoor

**Conflict of Interest:** The study has no conflict of interest to declare by any author.

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