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Research Article

## THE DETERMINATION OF THE FREQUENCY OF UN-BOOKED WOMEN AND THEIR MODE OF DELIVERY: A CROSS-SECTIONAL RESEARCH EXPERIENCE

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**Abstract:**

**Objective:** The research objective is the assessment of the un-booked cases and their delivery mode presenting at Services Hospital, Lahore.

**Material and Methods:** The study type is cross-sectional, that we conducted at Services Hospital, Lahore (March to September 2018). We selected 182 patients with obstetric and assessed C-section/vaginal mode of delivery associating with parity, age, and education-status.

**Results:** We took 182 obstetric patients with mean age of (25.2 ± 5.3) years. The number of booked and un-booked patients 45% (82) and 55% (100) respectively. Vaginal and C-section deliveries were 39% (71) and 61% (111) respectively. The number of cases having family income < 15,000, (15 – 30) thousand, and > 30,000 were 53% (97), 31% (57), and 15.40% (28) respectively. The number of Primary-para and Multi-para cases was 55% (101), and 45% (81) respectively. A number of patients belonging to the rural and urban area was 64% (116) and 36% (66) respectively.

**Conclusion:** The study concludes that the number of un-booked obstetric women was larger with a higher C-section rate. Most of the patients were having low socio-economic background with very low literacy rate. We noted a significant association between education-status and MOD.

**Keywords:** Mode of Delivery (MOD), Caesarean Section (C-section), Antenatal Care (AC) and Obstetric.

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## INTRODUCTION:

Antenatal care (AC) is one of the perfect examples of preventive medicine. It aims to ensure mother/child well-being. The components of AC concerns early/continuous risk-management, psycho-social intervention, health promotion and follow up [1]. AC is among the basic components that determine the rate of maternal mortality and mother/child life depends on it [2, 3]. Several socio-cultural and demographic studies related to maternal health-care services show that AC has a significant association with maternal age, education, place of residence, occupation, number of children living, and ethnicity [2, 4]. In our community, due to factors like ignorance, superstitions, poor health-services, customs, traditional beliefs, and huge medical bills make faith-based practices like using traditional medicines more popular than obstetric practice. A professional puerperium, pregnancy, and delivery care, as well as obstetric care (during complications), prevent maternal mortality as a medicine-based study provides evidence [5]. The same way, according to various studies, proper AC results in adverse outcomes [6]. A Nigerian study shows less significant association of AC, education, parity, and MOD with maternal mortality. While high parity, lower education level, high-risk patients, and caesarean delivery at emergency predicted maternal mortality independently [7]. We found an increasing level of un-booked obstetric patients in healthcare facilities. The study aims to help in maternal mortality/morbidity among the less educated, poor socio-economic population of these regions. Un-booked cases refer to women having less than three times attendance of antenatal clinics during pregnancy.

## MATERIAL AND METHODS:

The study type is cross-sectional, that we conducted at Services Hospital, Lahore (March to September 2018). We selected 182 patients with obstetric (Primary/Multipara) having (18 – 35) years' age. We excluded patients with > 35 years' age, systemic disease (diabetes mellitus, hypertension), ruptured uterus, and/or having  $\geq 02$  C-sections. We took informed consent (written) from all patients after taking approval from the Institutional Review Committee. We examined each patient physically and recorded their history. In the case of fetal/maternal complications, we performed C-section. We recorded MOD on a pre-designed proforma as Vaginal/C-section delivery. We noted the demographic data (income status, residential area, education, parity, and booking status) on proforma. We entered all data on a computer using SPSS software. We presented

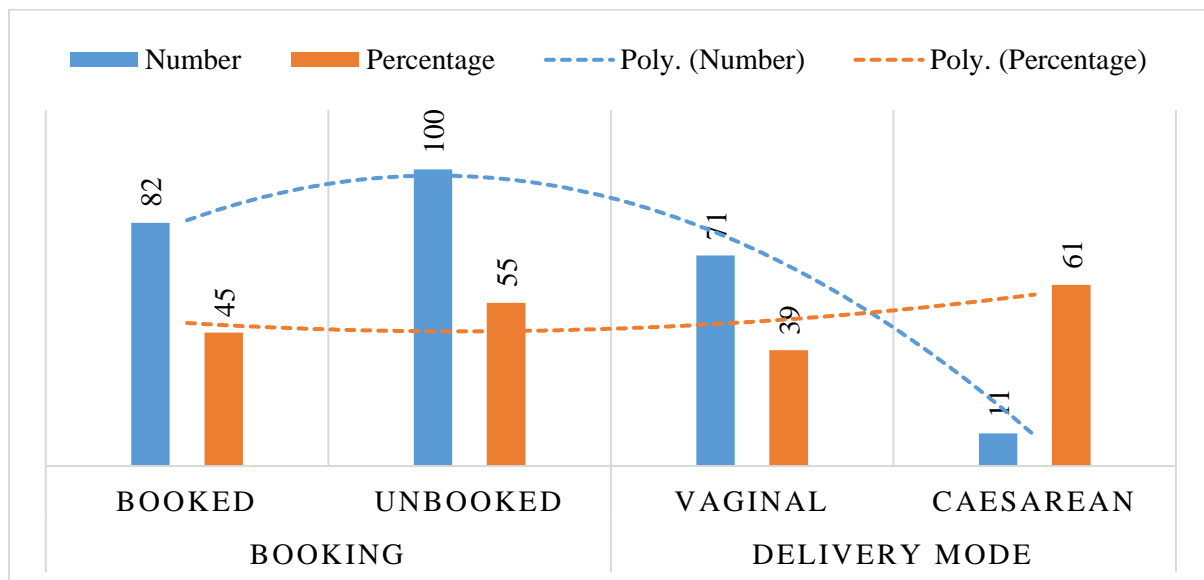
quantitative variables (gestational age, age) as mean and standard deviation. We used percentage and frequency to present qualitative variables (booked/un-booked, MOD, income status, parity as primary/multi-para, and education status). We used stratification for age, the area of residence, income & education status, and MOD. We applied the Chi-square test after stratification and took P-value  $\leq 0.05$  as significant.

## RESULTS:

We took 182 obstetric patients with mean age of (25.2  $\pm$  5.3) years. The number of booked and un-booked patients 45% (82) and 55% (100) respectively. Vaginal and C-section deliveries were 39% (71) and 61% (111) respectively. We made two age-groups; Group-A (18 – 27) years and Group-B (28 – 35) years for MOD stratification. The number of patients in Group-A and Group-B were 60.1% (124) and 31.8% (58). The number of patients with vaginal delivery among Group-A and Group-B was 36.3% (45) and 44.8% (26) respectively. The association of age with MOD was insignificant with (P-value = 0.3281). The number of cases having family income < 15,000, (15 to 30) thousand, and > 30,000 were 53% (97), 31% (57), and 15.40% (28) and we performed vaginal delivery in 41.2% (40), 31.30% (57), and 42.8% (12) respectively. After residential area stratification, we found that the number of patients belonging to the rural and urban area was 64% (116) and 36% (66) with a vaginal delivery rate of 41.3% (48) and 34.8% (23) respectively. The association of MOD with the residential area was insignificant with (P-value = 0.4313). After the stratification of MOD relative to education status, we found the rate of uneducated, primary-passed, middle-passed, matric-passed, intermediate, and above intermediate patients as 20.3% (37), 28.5% (52), 18.1% (33), 14.3% (26), 11.5% (21), and 7.1% (13) with vaginal delivery rate of 48.6% (18), 48% (25), 36.3% (12), 38.4% (10), 9.5% (02) and 30.7% (04) respectively. The association of MOD with education status was significant with (P-value = 0.0440). The number of Primary-para and Multi-para cases was 55% (101), and 45% (81) with vaginal delivery performed among 42.5% (43) and 34.5% (28) patients respectively. The association of MOD with parity was insignificant with (P-value = 0.2882). In our study, we did 39% (71) total vaginal deliveries with the rate of booked and un-booked cases as 50.7% (36) and 49.3% (35) respectively. We performed C-section among 61% (111) with the rate of booked and un-booked cases as 41.4% (46) and 56.5% (65) respectively, having P-value of 0.2835 as insignificant statistically.

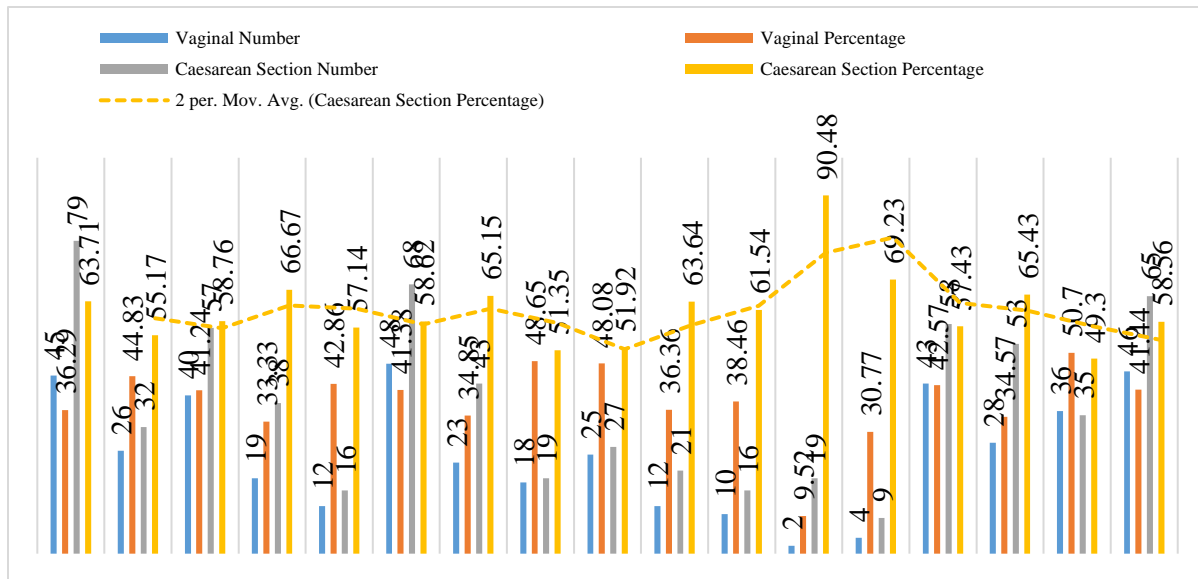
**Table – I:** Stratification for MOD relative to age.

Booking and Delivery Mode		Number	Percentage
Booking	Booked	82	45
	Un-booked	100	55
Delivery Mode	Vaginal	71	39
	Caesarean	11	61

**Table – II:** Stratification for MOD relative to income status.

Demographics		Vaginal		CS		Total		P-Value
		No	%	No	%	No	%	
Age	18 – 27 Years	45	36.29	79	63.71	124	60.13	0.3281
	28 – 35 Years	26	44.83	32	55.17	58	31.87	
Monthly Income	< 15,000	40	41.24	57	58.76	97	53.3	0.5627
	15,001 – 30,000	19	33.33	38	66.67	57	31.3	
	> 30,000	12	42.86	16	57.14	28	15.4	
Residence	Rural	48	41.38	68	58.62	116	63.74	0.4313
	Urban	23	34.85	43	65.15	66	36.26	
Educational Status	Un-educated	18	48.65	19	51.35	37	20.33	0.044
	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	
Parity	Primary Para	43	42.57	58	57.43	101	55.5	0.2882
	Multipara	28	34.57	53	65.43	81	44.5	
Delivery Mode	Vaginal	36	50.7	35	49.3	71	39.01	0.2835
	Caesarean Section	46	41.44	65	58.56	111	60.99	



## DISCUSSION:

Early AC is the essential objective of maternal health-care to provide plenty of time for early diagnosis and essential treatment regimens [8]. The research objective is the determination of the frequency of obstetric patients with un-booked cases and their MOD. In our study, we recorded the number of booked and un-booked patients as 45%, and 55% respectively out of 182 patients. Kaur et al. found 58% obstetric patients with the un-booked case in his study which is comparable with our study [8]. Similarly, Adelaja et al. and Omole-Ohonsi A et al. reported the rate of un-booked obstetric patients as 60.30% and 89.10% respectively [9, 10]. In our study, we recorded 53.3% of women with low socio-economic status. In developing countries, most of the mothers belonging to low socio-economic status deliver babies at home more frequently with no health attendant [11]. Mother related to the high socio-economic group had a higher rate of booked (26.2%) cases than un-booked (8.6%) cases. This reveals that financial status affects the rate of utilizing AC transportation and health-care services cost [12]. We recorded 51.5% un-booked cases with 37% multi-paras which show a close comparison with the study of Fawcus et al. [13]. This shows a high risk

for primiparous mothers. To achieve better maternal/neonatal outcomes, we must provide comprehensive AC to this group [14]. In our study, we performed 39% and 61% cases with vaginal delivery and C-section respectively. Kaur et al. recorded the rate of C-section and vaginal deliveries as 66.6% and 33.3% respectively which is close to the outcome of our study. In our study, most of the patients belonged to younger age-group having C-section mostly. We did not find any significant association of MOD with age-group (P-value = 0.3281). After demographic analysis of the data of booked/unbooked cases, we found that the reasons of withdrawing from using antenatal services among young age-group (21 – 25 years; P-value = 0.001) were less health education and awareness of the importance of AC until any obstetric complication leading them to be booked [5]. Several other studies show that young (less than 25 years) and less educated women have a higher rate of registering late [13, 15 – 16].

## CONCLUSION:

The study concludes that the rate of un-booked obstetric women is higher with a higher C-section rate. These cases mostly related to low socio-economic and

low literacy status. The association of MOD with education status is significant.

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