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Original Article
Vaginal and Caesarean Delivery
Pak Armed Forces Med J 2020; 70 (6): 1676-80

KNOWLEDGE AND ATTITUDE OF PREGNANT WOMEN REPORTING AT TERTIARY CARE HOSPITAL

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ABSTRACT

Objective: To explore the knowledge and attitude of the pregnant women towards vaginal and caesarean delivery and association of socio-demographic factors with the knowledge and attitudes of the participants.
Study Design: Cross sectional analytical study.
Place and Duration of Study: Antenatal Clinic of Obstetrics and Gynaecology Department at a tertiary care hospital in Rawalpindi by self - administered interviews, from May 2018 to Oct 2018.
Methodology: Three hundred and thirty-four women who attended antenatal clinic during the study period were interviewed using non-probability consecutive sampling method. The responses for chosen preferences were recorded on structured questionnaire after taking informed consent. All data was analysed using SPSS v.22.
Results: The mean age of the women was 27.25 ± 4.235 years. Majority 291 (87.1%) of women interviewed had received formal education. Two hundred and thirty-two (69.5%) were unemployed and primigravida were111 (33.2%). The overall knowledge was found to be adequate in 204 (61.1%) participants for vaginal and in 149 (44.6%) for caesarean section respectively. Two hundred and sixty seven (79.9%) of participants were willing for primary caesarean section but only 147 (44%) for elective repeat caesarean delivery. Only educational status (p-value <0.001) was significantly associated with knowledge towards caesarean delivery.
Conclusion: Pregnant women were having better knowledge of vaginal than caesarean delivery but they had positive attitude towards primary caesarean delivery due to fear of labour pains and vaginal birth after caesarean due to fear of pain during and after surgery.

Keywords: Attitude, Caesarean delivery, Knowledge, Pregnant women, Vaginal birth.

INTRODUCTION

Delivery of a child is considered a natural process which requires no intervention but due to the recent advancements in the field of medical science, maternity care has been made substantially medicalised leading to safe child birth thus reducing infant and maternal mortality[1]. Caesarean section (CS) is one of the most frequently performed surgical procedures world wide[2]. Caesarean sections are effective in saving maternal and infant lives, but only when they are required for medically indicated reasons. At population level, caesarean section rates higher than 10% are not associated with reductions in maternal and newborn mortality rates[3]. Implementation of evidence-based clinical practice guidelines, caesarean section audits and timely feedback to health-care professionals are recommended to reduce unnecessary caesarean sections[4]. Preventable maternal morbidity and mortality is associated with the absence of timely access to quality care, defined as too little, too late (TLTL) i.e, inadequate access to services, resources, or evidence-based care and too much, too soon (TMTS) ie, over-medicalisation of normal antenatal, intrapartum, and postnatal care. In 2010, an estimated 3.5-5.7 million unnecessary caesarean sections were done in high and middle income countries, whereas 1-3.5 million caesarean sections were needed, but not performed in low income countries[5].

CS rates have evoked global concern because of their relentless increase, lack of consensus on the appropriate CS rate, the associated risks and economic consequences[6]. CS prevalencehas

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Received: 31 Dec 2018; revised received: 16 Jan 2020; accepted: 24 Jan 2020

ranged from 6-27.2% in least and most developed countries respectively demonstrated by data from 150 countries[7-8].

Whereas, Pakistan has seen an increase from 2.7% in 1990-91 to 15.8% in 2012-13, there was no significant difference observed in CS rates between the private and public sectors[9].

An important step in controlling the rising caesarean birth rate in developing countries is providing better information to pregnant women and their partners during the antenatal period about modes of delivery, their indications, advantages and adverse consequences[10]. This study was planned fordetermining the maternal knowledge and attitude about modes of delivery in acountry like Pakistan where women literacy is still very low and for identifying factors towards lowering CS rate.

METHODOLOGY

It was a cross sectional analytical study conducted at antenatal clinic of a tertiary care hospital in urban Rawalpindi over period of six months from May 2018 to October 2018. Hypothesized % frequency[11] of outcome factor in the population (p):68.1% ± 5, at Confidence Level (95%) using Equation Sample size n = [DEFF*Np (1-p)]/ [(d2/Z21-a/2*(N-1)+p*(1-p)] from Open Epi, Version 3, open source calculator Propor. Data was collected from 334 pregnant women using non-probability consecutive sampling, who attended the antenatal clinic of the centre. Prior approval from hospital ethics committee was taken. Pregnant women attending antenatal clinic and willing to participate were included and unwilling were excluded. A questionnaire was designed for this study consisting of demographic data, obstetrical history, statements for evaluating knowledge, attitude, reasons for their chosen preferences, opinion on right to choose mode of delivery and caesarean delivery on maternal request (CDMR). The questionnaires were filled in by the pregnant women at the antenatal clinic. The of the validity questionnaire was assessed by a senior consultant Obstetrician. The researcher read the questions to the illiterate participant and chose the answers based on her opinion. Initially the questionnaire was pilot tested on 20 participants to look for conceptual difficulties, obscurities and social acceptability.

Participants were communicated the purpose and goals of the studyand written consent was taken before administering questionnaire. For multiple response questions frequency and percentage was calculated using descriptive analysis. Frequency and percentage were calculated by recoding and computing variables giving value 1 for "Adequate", 2 for "Inadequate" for total knowledge and 2 for "willing", 3 for "sometimes" 4 for "unwilling" for total attitude score respectively. Association oftotal knowledge and attitude with education, occupational status, parity and age was determined by using chi-square test of significance. A *p*-value of ≤0.05 was considered. Statistical analysis was done by using IBM SPSS 22.0 software

RESULTS

A total of 334 pregnant women were interviewed. The mean age of women was 27.25 ± 4.235 years with minimum 21 and maximum 42 years. Obstetric history and sociodemographic characteristics of participants (table-I).

Table-I: Socio-demographic characteristic distribution of participants (n=334).

Variables		n (%)
Age (years)	≤30	248 (74.3)
	>30	86 (25.7)
Education	Formal	291 (87.1)
	Informal	43 (12.9)
Employment Status	Employed	102 (30.5)
	Unemployed	232 (69.5)
Parity	1st	111 (33.2)
	2nd	103 (30.8)
	3rd	75 (22.5)
	>3	45 (13.5)

Among study population 105 (31.4%), 118 (35.6%) and 6 (1.8%) had experienced vaginal, caesarean and vaginal birth after caesarean (VBAC) respectively.

The results of total knowledge and attitude scores of vaginal delivery and CS were shown in

Table-II. Knowledge score of participants about vaginal delivery was better than caesarean section but attitude score showed more participants were willing for caesarean section than vaginal birth .

Table-II: Total knowledge and attitude score of vaginal birth and caesarean delivery (n=334).

Score	Vaginal Birth, n (%)	Caesarean Delivery, n (%)
Total Knowledge Score		
Adequate	204 (61.1)	149 (44.6)
Inadequate	130 (38.9)	185 (55.4)
Total Attitude Score		
Willing	52 (15.6)	125 (37.4)
Sometimes	214 (64.1)	164 (49.1)
Unwilling	68 (20.4)	45 (13.5)

Among study population 67 (20.1%) preferred vaginal delivery and 267 (79.9%) primary caesarean section respectively. Surprisingly 251 (75.1%) of women were willing to undergo (ERCD). One hundred and eighty seven (56%) women were unwilling for ERCD and the main reason was fear of pain during and after surgery.

Association of sociodemographic characteristics like age, education, employment statusand parity were assessed against thetotal knowledge and attitude, table-III & IV respectively, regarding vaginal delivery and CS through chi square test. Only educational status (*p*-value 0.000) was significantly associated with knowledge towards caesarean delivery.

Two hundred and twenty one (66.2%) participants agreed regarding the women's right to choose mode of delivery and 186 (55.7%) did not agreed to CDMR .

DISCUSSION

The results of this study showed that 61.1% and 44.6% of pregnant women had adequate knowledge of vaginal and caesarean delivery

Table-III: Association between demographic characteristics and total knowledge score of participants, (n=334).

Demographic Characteristics		Vaginal Delivery			Caesarean Section		
		Adequate	Inadequate	*p*-value	Adequate	Inadequate	*p*-value
Age	≤30	160	88	0.029	117	131	0.109
	> 30	44	42		32	54	
Education	Formal	185	106	0.015	144	147	0.000
	Informal	19	24		5	38	
Employment Status	Employed	62	40	0.942	43	59	0.550
	Unemployed	142	90		106	126	
Parity	Primigravida	69	42	0.774	52	59	0.562
	Multigravida	135	88		97	126	

Table-IV:Association between demographic characteristics and total attitude score of participants, (n = 334).

Demographic Characteristics		Vaginal Delivery				Caesarean Section			
		Willing	Sometimes	Unwilling	*p*-value	Willing	Sometimes	Unwilling	*p*-value
Age	≤30	37	160	51	0.856	95	123	30	0.449
	>30	15	54	17		30	41	15	
Education	Formal	45	188	58	0.852	105	146	40	0.419
	Informal	7	26	10		20	18	5	
Employment Status	Employed	16	65	21	0.996	44	46	12	0.357
	Unemployed	36	149	47		81	118	33	
Parity	Primigravida	21	72	18	0.270	34	57	20	0.092
	Multigravida	31	142	50		91	107	25	

VBAC. However respondent's two main reasons for refusal of VBAC, fear of uterine rupture and fear of labour pains, were the main reasons for acceptence of Elective Repeat Caesarean Delivery respectively which is similar to that reported in study in Baghdad[12] and it was more than reported in study at Iran[13]. The knowledge regarding caesarean section was better intwo Nigerian

studies 80.3% and 85.5%[14,15] as compared to our study. The knowledge of vaginal delivery in our study is more as compared to 16.6% in the study done at Hamdan[16]. Whereas, the attitude towards vaginal delivery of study done at Hamdan was positive in 95.1% similar to the study done in India[17] reporting 90% which were far higher than our study in whichit came out to be 15.6%. Surprisingly, pregnant women reporting for antenatal check up was found to have positive attitude (79.9%) towards primary caesarean delivery in our study, which was much higher as compared to international studies. Only one of the Nigerian study reported higher positive attitude (77.5%) towards caesarean delivery but rest of the international studies reported low rates of positive attitude towards caesarean delivery of 33% and 9.9% from Iranian and Nigerian studies respectively[13-15]. About 75.1% participants were willing for VBAC in our study which was higher than study in USA[18] and Switzerland[19] where 45% and 65.04% were willing for VBAC respectively. In our study knowledge regarding caesarean delivery was significantly related to educational status whereas study done at Hemdan, Iran[17] reported significant association of knowledge with occupation also. Attitude towards vaginal and caesarean delivery were not associated with demographic characteristics in our study which is different to the finding of study in Bangladesh[20] and Tehran, Iran[21].

CONCLUSION

Pregnant women had better knowledge of vaginal than caesarean delivery but they had positive attitude towards primary caesarean delivery due to fear of labour pains and VBAC due to fear of pain during and after CS. Correct recommendations regarding mode of delivery to pregnant women and their spouses during antenatal period and pain management are vital step towards decreasing the increasing trend of caesarean delivery.

CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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