

Primigravida Mothers' Knowledge and Attitude Towards Vaginal Delivery and Caesarean Section

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Abstract:

Background: Pregnancy is considered a normal physiological phenomenon. In addition, normal vaginal delivery is well-defined as the natural and spontaneous method of labour. Though, primigravida mothers might have anxiety towards mode of delivery. This study aims to assess the primigravida mothers' knowledge and attitude towards vaginal delivery (VD) and caesarean section (CS).

Materials and Methods: A cross-sectional study design. Three hundred primigravida mothers were recruited using non-probability, purposive sampling between January and February 2022. Data was collected using a self-administered questionnaires on knowledge and attitude towards VD and CS. Data was analyzed using the SSPS version 22 for descriptive and inferential analysis.

Results: The majority of the participants in this study have fair knowledge and positive attitude towards both VD. A significant correlation was found between knowledge and attitude towards VD among primigravida mothers.

Conclusion: The study revealed that although more than half of primigravida mothers have average knowledge and positive attitude towards both VD, health education to enhance primigravida mothers to recognize the risks and benefits of different modes of delivery is necessary.

Key words: primigravida mother, knowledge, attitude, vaginal delivery, caesarean section.

Introduction:

Pregnancy and childbirth are physiological events that, for the most part, go well while causing significant bodily and psychological changes. In order to create the ideal conditions for gestation, delivery, and childrearing, a woman requires the assistance of her family and medical professionals. Women need safety and care at this time, as well as access to high-quality healthcare services, to help them feel comfortable and get the answers to their questions. Otherwise, there may be a considerable risk to the reproductive process. The significance of prenatal care is stressed for

the welfare of the mother-child couple during pregnancy, labour, and the postpartum period (de Carvalho Barbosa Cavalcante et al., 2016).....2

The majority of the time, normal vaginal delivery (NVD) is the optimum method of delivery. But sadly, its rate is dropping as a result of an increase in caesarean sections (CS). Naturally, there are several contraindications to NVD, including cephalopelvic disproportion (caused by maternal or foetal issues), atypical foetal presentations, late or varied decelerations, severe bleeding, severe preeclampsia, and non-progressive labour. However, only about 10% to 15% of deliveries are made in this manner; the remaining 85% to 90% can be made naturally by NVD (Baghianimoghadam et al., 2012; Kh et al., 2002).5

Previous studies have demonstrated an association between reductions in maternal, neonatal, and infant mortality and the World Health Organization's (WHO) guideline to limit population-based caesarean section (CS) rates to 10-15%. (World Health Organization., 2015) However, CS rates have risen in both industrialized and developing nations during the past three decades (Al-Rifai et al., 2021; Betran et al., 2015).....4

Moreover, according to the most recent estimates, the prevalence of caesarean deliveries in the United States climbed rapidly from 4.5% in 1965, when it was first recorded, to 32% in 2007. This is the highest rate ever, and data suggests that it will keep rising due to the rising prevalence of comorbid diseases (advanced mother age, obesity, multiple gestations, diabetes, and hypertension/preeclampsia) linked to the risk for caesarean birth (Gregory et al., 2012; Guise et al., 2010; Menacker., 2010) 2,3.....3

When CS is performed needlessly, the load on public health services increases, which has a negative impact on mother and child health outcomes as well as economic and service shortcomings (Al-Rifai et al., 2021). A higher incidence of postpartum infection, urinary tract infection, discomfort, headaches, anaesthesia complications, maternal death, and postpartum depression has been linked to caesarean section (CS) compared to vaginal birth (VD) (Mascarello et al., 2018; Sharma & Dhakal., 2018)4, 3

The majority of the work that is currently accessible focuses on prenatal women's knowledge of and attitudes concerning VD and CS in various contexts and populations. Yamasmit and Chaithongwongwatthana (2012), Ghotbi et al. (2014), Varghese et al. (2016), Shazwani et al. (2017), etc. Therefore, it is crucial to look into this matter. This article summarizes a study that aimed to close this knowledge gap at the local level and disseminate it internationally in order to add to the body of evidence that antenatal health care providers can use when dealing with primigravida mothers' knowledge and attitudes regarding vaginal delivery (VD) and caesarean section (C section) (CS).....1

Aim of the study:

to assess the knowledge and attitude towards VD and CS among primigravida mothers in
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Research questions:

What are the knowledge of primigravida mothers towards VD and CS ?

What are the attitude of primigravida mothers towards VD and CS ?

Materials and method:

Design:

A cross-sectional design was employed in this study.

Subject and setting:

Purposive sampling was undertaken to recruit a number of (100) primigravida mothers attending antenatal visits in a hospital at..... between January and February 2022.

Inclusion criteria:

- primigravida mothers
- aged 18 years old and above,
- and able to understand Arabic
- willing to participate in the study

Exclusion criteria:

- Have obstetric complications which leading to delivery through caesarean section.
- Not willing to participate in the study.

Tool:

One tool was used for data collection. It was developed by the researcher after reviewing of current national and international related literatures. The questionnaire has three parts with a total of 26 items as follow:

Part one: These included socio-demographic data (age, week of gestation, ethnicity, monthly household income, highest educational status, occupational status and source of information about VD and CS).

Part two: it composed of 9 dichotomous questions to evaluate knowledge on VD and CS evaluated with 'True', 'False' and 'Don't Know'.

Part three: represent a Ten items on attitudes towards VD and CS with 5 items were related to attitude towards VD and another 5 items on attitudes towards CS. Each question was scored on a five-point Likert scale (strongly agree, agree, no opinion, disagree and strongly disagree) which allows participants to choose one option that best represents their point of view.

Method:

Approval to conduct the study was obtained. Tool was tested for its validity and necessary modifications were done. The test-retest reliability of the tool was assessed with 10 postnatal women. The Cronbach's alpha for each domain was calculated. The Cronbach's alpha for knowledge domain and attitude domain were 0.77 and 0.67 respectively which shows the good reliability of the instrument. A participant was met individually. The time taken to complete the

questionnaire is approximately 20 minutes. For scoring of the knowledge, each correct answer will give one (1) score and zero (0) for each incorrect and don't know response. The total maternal knowledge score for the knowledge part is 9 and it was grouped into a good and poor level based on the mean score of the data. For the attitudes towards VD and CS, the total score is 50 and a low value in the attitude domain represented the negative attitude and high score represents positive attitude.

Statistical analysis:

Data were analysed using SPSS 22.0. Descriptive statistics were calculated for all variables to summarize the data. Pearson Chi-Square test was used to evaluate the association between level of knowledge and attitude towards VD and CS among primigravida mothers. The *p*-value of ≤ 0.05 was considered statistically significant.

Ethical considerations:

Ethical approval was obtained. The research process and its objectives were explained to the participants, and all participants signed informed consent before data collection. The participants were assured about the data confidentiality, and the questionnaires were anonymous. The participants have the right to refuse or withdrawal from the study.

Results:

Table I: frequency distribution of the study participants' sociodemographic characteristics:

A total of 300 primigravida mothers participated in the study. This table shows that near than half of mothers (42%) aged more than 30 years old with income of 5000-10000 SR (44%). Majority of them (75%) were in the second trimester and over, Saudi (79%). About two thirds of them were have secondary (34%) and university education (32%), employed (59%). The participants in this study revealed that the source of the information on VD and CS as one of the delivery method was from the family member and friends (44%, 34%).

Variables	N	%
Age (Year)		
<25	75	25
25-30	99	33
>30	126	42
Week of gestation		
\leq 2nd Trimester	75	25
> 2nd Trimester	225	75
Nationality		
Saudi	237	79
Non Saudi	63	21
Monthly income		
<5000	63	21
5000-10000	132	44
>10000	105	35

education		
Primary school	36	12
Secondary school	102	34
College	66	22
University	96	32
Occupation status		
Employed	177	59
Non-employed	123	41
Source of information on modes of delivery		
Family	132	44
Friends	102	34
Social media	48	16
Healthcare professionals	18	6

Table II: Primigravida Mothers Knowledge towards Vaginal Delivery and Caesarean Section:

This table shows that more than one third of the participants know that pain is not less severe after CS than VD (42%) and knows that maternal morbidity is more frequent in CS than VD (44%). In addition, more than half of the participants aware that infection is more frequent after CS (51%). Majority of them (77%) know that bleeding in CS is less severe than VD. A statistically significant differences were noticed in all statements.

Items		Knowledge			%	Chi-square	
		Yes	No	Don't Know		X ²	P-value
Pain is less severe after CS than VD	N	78	126	96	42	11.760	0.003
	%	26	42	32			
Maternal morbidity is more frequent in CS than VD	N	132	48	120	64	41.280	0.000
	%	44	16	40			
Infections are more frequent after CS than VD	N	153	63	84	65	44.340	0.000
	%	51	21	28			
Babies born by CS are more intelligent than VD	N	24	90	186	39	132.720	0.000
	%	8	30	62			
Neonatal respiratory disorders are less frequent after CS than VD	N	57	84	159	45.5	55.860	0.000
	%	19	28	53			
Bleeding in CS is less severe than VD	N	231	39	30	82	257.820	0.000
	%	77	13	10			

Table III: Primigravida Mothers attitude towards Vaginal Delivery and Caesarean Section:

Most of the participants agreed and strongly agreed in all statements about VD. A statistically significant differences were noticed in all statements.

Items		Attitude					%	Chi-square	
		Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree		X ²	P-value
VD is an acceptable mode of delivery	N	153	87	45	3	12	84.4	252.600	0.000
	%	51	29	15	1	4			
Seeing the baby immediately after delivery is a pleasure	N	171	72	18	21	18	83.8	291.900	0.000
	%	57	24	6	7	6			
I regain my health status sooner after VD than CS	N	153	66	63	9	9	83	231.600	0.000
	%	51	22	21	3	3			
VD creates a more affectionate mother-baby relationship	N	153	57	45	15	30	79.2	196.800	0.000
	%	51	19	15	5	10			
In terms of outcome, VD is more pleasant	N	165	75	33	21	6	84.8	273.600	0.000
	%	55	25	11	7	2			

Table IV: mean knowledge and attitude of Primigravida Mothers towards Vaginal Delivery and Caesarean Section:

The mean knowledge score towards VD and CS of the participants in this study was (3.57±0.949) and the half of the primigravida mothers have average knowledge towards VD and CS (48%). The mean attitude score towards VD and CS of the participants in this study was (17.21±3.575) and the majority of the primigravida mothers have a positive towards VD (68%). With a statistically significant differences in relation to knowledge and attitude.

	N	%	Score		Chi-square	
Knowledge			Range	Mean+SD	X ²	P-value
Weak	111	37	1-6.	3.57±0.949	50.82	<0.001*
Average	144	48				
High	45	15				
Attitude						

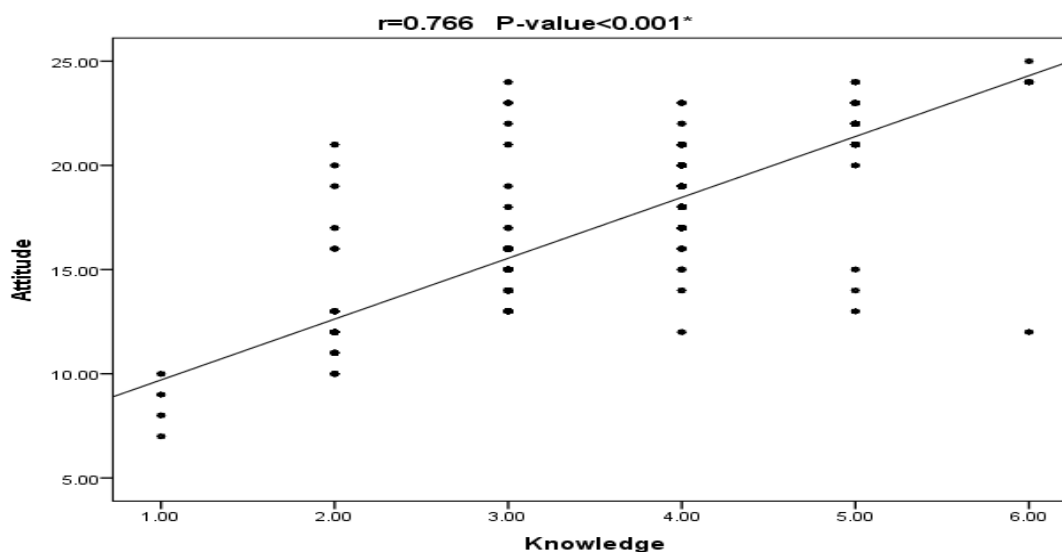
Positive	204	68	7-25.	17.21±3.575	38.163	<0.001*
Negative	96	32				

Table V, figure I: correlation between knowledge and attitude of Primigravida Mothers towards Vaginal Delivery and Caesarean Section:

It was noticed that a significant correlation between knowledge and attitude was found ($P < 0.001^*$)

Correlation		Knowledge
Attitude	r	0.766
	P-value	<0.001*

Figure I: correlation between knowledge and attitude of Primigravida Mothers towards Vaginal Delivery and Caesarean Section:



Discussion:

The study results revealed that approximately half of participants were more than 30 years of age with a monthly income from 5000-10000 SR. majority of them were at the second trimester and over, Saudi, educated, employed and gain their knowledge about VD and SC from their family and friends. Fair level of knowledge about VD and SC and positive attitude toward VD with a significant difference and correlation were noticed. This level of knowledge may be owed to that friends and family were the primary source of information. This results may be promoted through enhancing the educating role of family centers and antenatal clinics in order to provide an evidence based knowledge and information.

The results of the present study were inconsistent with previous studies that found mothers had poor knowledge on different routes of delivery (Owonikoko, Bello-Ajao, Atanda and Adeniji, 2014; Ghotbi et al., 2014). While it was in the same line with Shazwani et al., 2017 who found that more than half of primigravida mothers have good knowledge and positive attitude towards both VD and CS, health education to empower primigravida mothers to understand the risks and benefits of different modes of delivery is needed.

The present findings are in a harmony with other studies which establish that women have adequate knowledge on maternal morbidity in relation to CS and VD (Ray Chaudhuri Bhatta & Keriakos, 2011; Shamsa, Bai, Raviraj). However, the morbidity associated with cesarean sections may be a reflection of the maternal condition prior to the procedure being performed on them.

Regarding attitude, this study found that primigravida mothers have a positive attitude to VD. This finding is consistent with the preceding study done by Aali & Motamedi (2005). In addition, most of the participants in this study strongly agreed that VD creates more affectionate mother-baby relationship towards each other. This is similar to the finding in the study done by Faremi, et al (2014), in which attitude of the mothers towards methods of birth shows that majority thought that vaginal delivery generates more mother-baby friendly relationship than a caesarean section. This presented that the participants had a positive attitude towards VD.

The finding in the study showed that there is a significant correlation between the level of knowledge and the attitude towards VD. This finding reinforced the idea of good knowledge is concomitant with a positive attitude. This was articulate to the findings in the study done by Ghotbi et. al., (2014) that mentioned increased maternal knowledge, the positive attitude towards VD is upraised.

Conclusion and recommendations:

The study revealed that although more than half of primigravida mothers have average knowledge and positive attitude towards both VD. A significant correlation between knowledge and attitude was found. The study recommends continuous assessment during antenatal visits to determine concerns and fears on pregnancy and delivery. In addition, educating about the modes of delivery, their indications, advantages and adverse consequences can better inform the mothers on maternal and perinatal health.

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