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Women's knowledge and attitude towards caesarean section in Imphal west district, Manipur

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Abstract

Background: The rapid increase of caesarean section (CS) rate throughout the world has become a serious public health issue since the level of CS is well above the WHO (1985) recommended 15% and it is increasing over time.

Objectives: To determine the knowledge and attitude towards caesarean section and association between knowledge and attitude with selected variable such as age, ever CS etc.

Methods: A cross sectional study was conducted from September 2013 to August 2015 in urban area of Imphal west district among 300 eligible married women belonging to 18 to 35 years. Simple random sampling was adopted and structured interview schedule was used for data collection. Data were analyzed using chi-square test and P-value <0.05 was taken as statistically significant.

Results: 92.7% respondents had inadequate knowledge regarding CS. 78% have neutral attitude towards CS. Only 6.7% and 15.3% respondent have favourable and unfavourable attitude towards CS respectively. Knowledge level was significantly higher among those who are 30 to 35 years, studied graduate and above, higher socio-economic status and those who ever had CS.

Conclusion: Although all the women surveyed were aware of CS, majority of them have inadequate knowledge and neutral attitude towards CS. Majority of the women still preferred vaginal delivery and the demand for CS was low.

Keywords: Caesarean section (CS), Knowledge, Attitude, Women, Community.

Introduction

The WHO guidelines regarding caesarean rates in 1985, which was revised in 1994, states that the proportion of caesarean births should range between 5-15%. It is mentioned in the guideline that no additional benefit accrues to the mothers or the perinates when the rates exceeds the level.(1)

Manipur showed an overall CS rate of 9% and 21.1% according to NFHS - III (2005-06) and NFHS-IV (2015-16) respectively.(2) At Regional Institute of Medical Sciences, a teaching hospital in Imphal West, Manipur, which is conducting around 11,000-13,000 deliveries annually (Medical record department) the CS rate ranges from 27 -30% in 2011-2013. Evidence shows that patients who are knowledgeable about their conditions are able to actively participate in shared decision-making.(3) Although increasing trends in CS rate is there in Manipur, there has, not been any data published to highlight the knowledge and attitudes of women of child bearing age towards CS. The objective of this study was to determine the knowledge and attitude towards caesarean section and to determine the association between knowledge and attitude with selected variable such as age, education, ever CS etc.

Material and Methods

A cross sectional study was conducted from September 2013 to August 2015 in Kakwa, an urban area of Imphal west district of Manipur among 300 eligible married women belonging to the age group of 18 to 35 years and residing in the study area for at least one year. All eligible women were included in this study while women that were critically ill, undergoing infertility treatment, undergone permanent sterilization for family planning, cannot be met at home even after two successive visits and those that did not gave consent were excluded. Calculated sample size was 295. Household was taken as the sampling unit and electoral roll (2013) for each locality as the sampling frame. Study area comprised of six localities and 67 households were selected from each locality by simple random sampling using random numbers table. If any household identified has more than one eligible woman then lottery method was used to select the participant.

A pre–tested structured interview schedule was used for data collection. The questionnaire was divided into two (2) parts. Part one consist of background characteristics and regarding previous pregnancy and delivery history. Part two comprises of the questions on knowledge and attitude towards CS. The validity of the questionnaire was established through face and content validity criteria in consultation with the faculty members of the Obstetrics & Gynecology and Community Medicine Department and their inputs was further used to improve the questionnaire. A pilot survey was further conducted among an eligible sample of 30 women who were not part of the study for pretesting the questionnaire. Per capita income of the respondent was based on revised Prasad's Socio-economic classification (2014).(5) There were 16 knowledge questions on CS, respondent can give more than one correct response for two questions, while for the rest of the 14 questions there

was only one correct response and the score ranges from 0-18. Any individual who scored more than or equal to 10 based on the mean knowledge score obtained from the pilot survey was regarded as having adequate knowledge regarding caesarean section. There are 21 statements related to attitude towards caesarean section and the responses were scored on a 5-point Likert- scale. Total attitude score ranges from 21- 105. 40-60% of the total score was taken as having neutral attitude and less than 40% as having unfavourable attitude and more than 60% as having favourable attitude towards CS.

Statistical analysis

The collected data were entered and analyzed in SPSS (IBM) version 21. Mean (SD) and percentages were used to summarize quantitative variables. Association between level of knowledge and attitude on caesarean section and socio demographic characteristics like age, education, ever CS etc were carried out using the Chi square and Fisher's exact tests where applicable. Statistical significance was said to be achieved when *P* value was <0.05.

Ethical approval of the study was obtained from the Research Ethics Board of RIMS, Imphal and verbal consent was obtained before interviewing each individual.

Results

Of the 300 respondents, majority were in the age group of 30-35 years. The mean age was 29.4±4.9 years. The socio demographic and previous delivery characteristics were summarized in Table 1 and 2. All the respondents were aware of CS and the most common source of information was health care provider (71%) followed by relatives (26%). 69.8% women gave CPD as the most common indication followed by fetal distress (42.4%). Around one-fourth of the respondents knew about complications following CS. 48.2% said blood loss as the most common complication followed by backache (45.8%) and infection (44.6%). Only 34.3% of the participants know the correct response that post-partum infections is more common in CS. Few women (9.3%) said CS was not mandatory for breech presentation. Only 5.3% women know the correct response that CS is not absolutely risk free. Very few (2.7%) participants know the correct response that risk of maternal death is higher in CS.

Majority of the respondents (92.7%) had inadequate knowledge regarding CS and only 7.3% had adequate knowledge (Table 3).

Majority of the women (93%) agreed to the statement that "Women at ANC visits should be educated about CS". 62.3% agreed to the statement "Elective CS is the best choice for a woman with fear of VD as pain is unpleasant". 21.3% agreed to the statement "It is a woman's right to choose a CS for herself, even if there are no medical reasons for it (CDMR)". Majority of the respondents (78%) have neutral attitude towards CS. Only 6.7% and 15.3% of the women have favourable and unfavourable attitude towards CS respectively (Table 3). Majority of the respondent (82.3%) preferred vaginal delivery as their mode of delivery and only 10% preferred CS. Majority of them (84.3%) wanted doctor to be the decision maker for their childbirth. Association between knowledge and attitude with selected variables were given at Table 4 and 5.

Table 1: Socio-demographic characteristics of the study participants (n=300)

Age (years)	**Number (%)**
Mean±SD	29.40±4.93
18-23	43(14.3)
24-29	90(30.0)
30-35	167(55.7)
Age at marriage (years)	
Mean±SD	22.90±4.26
< 18	68(22.7)
18-23	116(38.7)
24-29	85(28.3)
30-35	31(10.3)
Age of husband (years)	
Mean±SD	33.85±6.75
<20	3(1.0)
21-25	18(6.0)
26-31	52(17.3)
32-37	85(28.3)
>37	74(24.7)
Pregnancy status at the time of interview	
Yes	35(11.7)
No	265(88.3)
Educational status of participants	
Illiterate	0
Primary	12(4.0)
Middle	63(21.0)
Secondary	130(43.3)
Graduate and above	95(31.7)
Educational status of husband	
Illiterate	0
Primary	6(2.0)
Middle	38(12.7)
Secondary	130(43.3)
Graduate and above	126(42.0)
Occupation of participants	
Housewife	222(74.0)
Self employed	15(5.0)
Private employed	32(10.7)
Govt employed	31(10.3)
Per capita income	
5571 & above	57(19.0)
2786-5570	123(41.0)
Less than 2786	120(40.0)
Had at least one child	
Yes	277(92.3)
No	23(7.7)

Table 2: Characteristics of previous pregnancy and delivery (N=277)

Number of living child	Number(%)
1-2	228(82.3)
3-4	44(15.9)
≥5	5(1.8)
Mode of delivery	
Ever had Caesarean section	76(27.4)
Vaginal delivery	201(72.6)
Place of delivery of CS (n=76)	
Government Hospital	53(69.7)
Private Hospital	23(30.3)
Characteristics of previous caesarean section (n=76)	
CPD	28(36.8)
Previous CS	11(14.5)
Fetal distress	10(13.2)
Breech	8(10.5)
CDMR	7(9.2)
PROM	5(6.6)
Others*	7(9.2)

*big baby (3), no labour pain, pile case, not engaged, doctor's advice

Table 3: Respondent's knowledge and attitude towards caesarean section

Parameters	Number(%)
Knowledge	
Adequate	22(7.3)
Inadequate	278(92.7)
Attitude	
Favorable	20(6.7)
Neutral	234(78.0)
Unfavorable	46(15.3)

Table 4: Relationship between knowledge and socio-demographic characteristics

Age group (Years)	Knowledge		p-value
	Adequate n(%)	Inadequate n(%)	
18 – 23	1(2.3)	42(97.7)	0.31
24 – 29	6(6.7)	84(93.3)	
30 – 35	15(9.0)	152(91.0)	
Age at marriage (years)			
< 30	17(6.3)	252(93.7)	0.04*
≥30	5(16.1)	26(83.9)	
Age of husband (years)			
< 30	1(1.4)	72(98.6)	<0.001†
≥30	21(9.3)	206(90.7)	
Educational status of the participants			
Middle and below	2 (2.3)	73(97.7)	<0.001*
Secondary to Higher secondary	3(2.7)	127(97.3)	
Graduate and above	17(17.9)	78(82.1)	
Educational status of the husband			
Middle and below	1(2.3)	43(97.7)	0.03*
Secondary to higher secondary	6(4.6)	124(95.4)	
Graduate and above	15(11.9)	111(88.1)	
Per capita (Rs)			
5571 & above	11(19.3)	46(80.7)	<0.001*
2786-5570	6(4.9)	117(95.1)	
Less than 2786	5(4.2)	115(95.8)	
Ever CS			
Yes	9(16.4)	46(83.6)	0.02†
No	13(5.9)	209(94.1)	

*Chi square test for trend † Fisher's exact test

Table 5: Relationship between attitude and socio-demographic characteristics

Socio-demographic characteristics	Attitude n(%)			p-value
	Favourable	Neutral	Unfavourable	
Age at marriage(years)				
< 30	15(5.6)	212(78.8)	42(15.6)	0.08
≥30	5(61.1)	22(71.0)	4(12.9)	
Education of the husband				

Middle and below	0	34(77.3)	10(22.7)	0.04*
Secondary to higher secondary	8(6.2)	104(80.0)	18(13.8)	
Graduate and above	12(9.5)	96(76.2)	18(14.3)	
Ever CS				
Yes	7(12.7)	41(74.5)	7(12.7)	0.19
No	13(5.9)	174(78.4)	35(15.8)	

*Chi square test for trend

Discussion

In the present study 27.4% respondent had ever CS and the most common indications were CPD, previous CS, fetal distress and breech. Findings were comparable to a study conducted at rural medical college, Haryana[6] where they reported previous CS followed by fetal distress and breech as the common indication. However in their setting, only 5.1% had CS because of CPD as compared to 36.8% in our setting. This show that high rate of CPD in our setting is questionable, whether it was due to genetic or poor nutritional status of the women or over diagnosis of CPD by junior doctors.

In the present study, the first child CS rate was 19.9% and majority of them belongs to 30-35 age groups. This was found consistent with a study conducted by Dey N and Hatai SK.[7] This shows that age is also a contributing factor in deciding CS. A study done by Roberts et al[8] has concluded that rising first birth CS rate had drove the overall increase in CS rate. This was supported by the present study findings where previous CS was the second most common indication for subsequent CS.

There was variation in the level of adequate knowledge at different parts of the world (1.6% to 40%).[4,9,10,11,12]

In the present study, all the women were aware about CS and 76 (27.4%) had experienced it, but only 22 (7.3%) participants had adequate knowledge. The finding was lower than the study conducted at Nagpur,[4] where they reported 26.2% women having adequate knowledge. This difference may be because of the difference in the background characteristics of study population in this setting. In the present study, majority of women said pain was more in vaginal delivery and maternal morbidity more among CS. Similar findings were noted in other studies conducted at other places viz India,[4] Pakistan[9] and Iran.[13] In the present study, almost all the participants believed CS to be mandatory for breech and tubal ligation. This finding was higher as compared to the study reported from Pakistan.[9] This may be one of the contributing factors of rise in the CS rate in the present setting because of increased proportion of CS among breech as breech presentation was one important indication for CS as shown in this study. In the present study, majority of the participants have the wrong notion that baby born by CS are more intelligent than VD. The finding was consistent with the study conducted in Pakistan.[9] More than two-fifth agreed to the attitude statement that CS, by scheduling a particular birth date and time is great for the baby. Therefore, factors such as socio-cultural beliefs may also be influencing the increase in CS rates in future.

Most of the participants in the present study (97.3%) did not know that the risk of maternal death from CS was higher than that following VD as compared to 70.9% in a study conducted in Thailand.[11] This may be because majority of them felt CS is absolutely risk free.

Majority of them had neutral attitude (78%) towards CS. This could be explained by the fact that majority of respondents had inadequate knowledge (92.7%). Majority of the women agreed that VD is a natural and acceptable mode of delivery and Elective CS is best choice for women with fear of VD as pain of VD is unpleasant. These findings were similar to other studies.[14,15] Such finding shows that unpleasant VD pain maybe one of the hindrance of accepting VD by the women. More than half of the women have positive attitude towards CD on maternal request (CDMR) statement. The finding was similar with a study conducted at Nigeria (64.0%).[12] This may be because majority of them believed CS to be a risk free and this maybe also one of the contributing factor of increase CS rate, which can be seen in the present setting that around 9.2% of women have actually practiced CDMR.

The present study provides some insight into delivery preference in Manipur. Majority (82.3%) of the women preferred vaginal delivery against CS (10%), as their preferred mode of delivery even among women who have delivered by CS. Similar findings was noted in other studies conducted at Nagpur(91.7%),[4] and Thailand (87.5%).[11] Majority of the women wants doctor to take the decision for their mode of delivery. This may be because lack of knowledge affects their ability to involved in informed discussions with their caregivers. In a study conducted by Saoji A et al,[4] a large proportion (71%) of women having previous CS did not participate in the decision making process and accepted the decision for a CS by the attending physician. One of the limitations in the present study was that it did not look into this matter.

Therefore, government should adopt guidelines to check into the rising of unwanted CS rate in Manipur. A reporting system should be made to report data regarding CS from all the government and private hospitals/clinics to know the current trend and predisposing factors. Adopting policies to make vaginal delivery a less painful experience could also reduce CS rate. Lastly, almost all women wanted CS to be a part of antenatal clinic

educational topics. Therefore, every government/private hospitals should include education program regarding different modes of delivery with special preference to CS to antenatal mothers as a component of antenatal care package to those attending antenatal clinic.

Conclusions

Majority of the women still preferred vaginal delivery and the demand for CS was low. Thus, women's preferences are unlikely to be the most significant factor driving the high caesarean rates.

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