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A STUDY ON PATIENTS PERSPECTIVE ON PERSONALIZED DECISION-MAKING OPTIONS ABOUT MODE OF DELIVERY: ACROSS SECTIONAL STUDY

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ABSTRACT

Background: Although vaginal delivery remains most common delivery mode, overall cesarean rate reached 32.8% in 2010. Cause for this is multi-factorial and decision to deliver by cesarean section depends on variety of factors. Though it's safety in present era is proved. However cesarian sections should be done only for indicated cases. As a malpractice many cesarians done either unindicted or on patients demand. Hence present study undertaken to review patients opinion about various modes of delivery. **Aims and Objectives:** To study preferences and influencing factors for elective caesarean section or normal vaginal delivery among antenatal mothers. **Methods:** Prospective observational study in tertiary care centre of 360 term antenatal women was conducted. Patients were evaluated with respect to age, education, gravida, socioeconomic status, previous cesarean section were interviewed and questionnaire was provided. **Results:** We found 87% women preferred vaginal delivery while 13 % preferred cesarean section. We found socioeconomical status, gravida, previous mode of delivery and complications in previous delivery are the main determining factors for choosing mode of delivery. Majority who preferred vaginal delivery as it is natural process, short hospital stay, fear of surgery, prolonged bed rest after operative. Few preferred section due to fear of labour pain, fear of injury. **Conclusion:** After assessing knowledge, attitudes and preferences regarding mode of delivery, study concludes that majority of women irrespective of gravida, parity, previous obstetric history prefer vaginal delivery as compared to cesarean section. Factors like history of previous cesarean section, economical status, counselling in antenatal clinics and knowledge provided by husband and relatives may influence in making decisions. From specialist obstetricians view preference should be given to vaginal delivery.

KEYWORDS: Mode of delivery, Attitude, Preferences, Knowledge.

INTRODUCTION

According to World Health Organization (WHO), the ideal rate for caesarean sections is between 10% and 15%.[1,2] Over the years, however, Caesarean deliveries, whether elective or medically necessary, have risen dramatically in recent decades. This rising trend raises questions about the appropriateness of caesarean deliveries that may not be medically required. Although considered safe, Cesarean birth is associated with short- and long-term risks that can extend many years beyond the current delivery and affect the health of the pregnant woman, the newborn, and future pregnancies, in addition to substantial financial burden to family and society.[3]

A Caesarean section is usually indicated when vaginal delivery poses risk to the baby or the mother. American College of Obstetricians and Gynecologists [ACOG] (2017) studied and reported medical indications for caesarean section. These conditions include failure of labour progress or obstructed labour, hypertension in mother, fetal problems such as umbilical cord prolapses or compression, big baby, malposition of the baby, oblique lie, twins and cervical dystocia as well as contracted maternal pelvis, previous history of CS.

When CS is carried out for medical reasons and performed by trained staff with necessary equipment and supplies, CS can be a life-saving procedure for mother and baby. WHO has reported that when caesarean section rates rise toward 10% across a population, number of maternal and newborn death decreases. However, when rate goes above 10%, there is no consistent evidence that mortality rates can be improved.[4]

Overall increase in rate of caesarean sections can be explained by both medical and non-medical factors. Medical factors include increase in maternal age and obesity, also advances in obstetric practice and technology.[5]

Some non-medical reasons for increased trend in C sections include fear of pain, fear of medical litigation, financial incentives, and socio-cultural factors etc.[6] Compared to vaginal delivery, caesareans are associated with higher risk of numerous maternal morbidities including infection, uterine rupture, and amniotic fluid embolism. Cesarean delivery may affect the fertility of women and several subsequent pregnancy risks such as placenta previa, uterine rupture, and stillbirth. It has been also reported that children born via caesarean are more likely to develop respiratory problems, diabetes and obesity later in life.

Study by Ji et al[7] (2015) observed that 34.9% of women who underwent caesarean section did not have any indications listed in the clinical guidelines nor based on maternal request. Recently it has been also observed that doctors influence is also one of factors for increasing cesarean rates. Women living in urban areas, higher household income, better access to hospitals, wider coverage of health insurance and the women's educational attainment and parity are some of the additional factors contributing to recent surge in cesarean section rates.

Therefore, since Caesarean sections can cause significant and sometimes permanent complications, disability or death particularly in settings that lack the facilities and/or capacity to properly conduct safe surgery and treat surgical complications, it should ideally only be undertaken when medically necessary. "Every effort should be made to provide caesarean sections to women in need, rather than striving to achieve a specific rate".[5]

The purpose of the present research was therefore, to identify the preference of the mode of delivery among women attending antenatal care and to ascertain the determinants of Caesarean Section and attitudes of pregnant women toward C- Section. The increase in the number of births by Caesarean section is a global phenomenon. However, the opinion of many women towards the choice of mode of delivery is often not based on the experience or information from reliable sources.

Our study was an attempt to expand current understanding of the process of decision making about mode of delivery in pregnant women as well. Details were explored by interviewing women with a wide range of experiences, including women with prior experience of elective and emergency caesarean section and women with different delivery preferences. We also made an attempt to study the roles of the women, family members and their health professionals in the decision- making process.

MATERIALS AND METHODS

The study was Prospective Observational study carried out in setting comprised of the Out Patient Department, antenatal wards of a tertiary Medical College Hospital. Study participants were recruited from the Pregnant women visiting the ANC clinic of obstetrics and gynecology department of the tertiary care Hospital.

The questionnaire had a combination of dichotomous questions as well open-ended questions. The information regarding socio-demographics, age (years), educational status, occupation, income, obstetric history, previous mode of delivery, knowledge and attitude towards vaginal and cesarean delivery was collected.

A questionnaire was designed for this study consisting of demographic data, obstetric history contained five domains for evaluation of attitude. A total of 360 women were approached.

The questionnaires were filled in by the pregnant women at the antenatal clinic.

The first part of the questionnaire focused on personal and socio-demographic information (such as age, education, occupation, residence and income status). The second part asked for gynecological and obstetric information, including any history of infertility and history of previous abortions. The third part of the questionnaire focused on the current pregnancy (e.g., complications during pregnancy).

The last part asked pregnant women about their preferred mode of delivery and the reasons. A thorough history taking was done for all the participants included in the study.

➢ Statistical analysis

All the collected data were computed in master chart. Statically data analysis was done. Descriptive analysis was performed to have a view of the characteristics of the study participants. Chi Square test, Mean, Standard deviation, 'p' values were calculated. A 'p' value less than 0.05 denotes significant relationship.

➢ Inclusion criteria

- All antenatal mothers admitted in the antenatal ward and visiting the Obstetric OPD.
- Patients willing to participate in the study

RESULT AND DISCUSSION

➢ Exclusion criteria

- Antenatal mothers with the high risk conditions are excluded in this study.
- Any woman with an absolute indication for caesarean section was excluded from the study, such as placenta previa, contracted pelvis and those with more than one caesarean section.

Comparison of various factors and preference of mode of delivery

	Preferred CS (n=48)		Preferred VD (n=312)	
	Number	**Percentage**	**Number**	**Percentage**
Age group				
< 20	03	10.34	26	89.65
21-30	40	13.33	260	86.66
> 30	05	16.12	26	83.87
X^2 value – 0.4338, df-2, P value – 0.805				
Education				
Illiterate	0	0	6	100
1-12	43	14.23	259	85.76
≥Graduation	5	9.61	47	90.38
X2 value – 1.7592 df-2, P value-0.4149				
Residence				
Urban	13	10.31	113	89.68
Rural	35	14.76	202	85.23
X2 value – 1.4199 df- 1 P value-0.2334				
Income status				
Lower	19	8.15	214	91.84
middle class	20	19.23	84	80.76
Higher	9	39.13	14	60.86
X2 value – 21.78df- 2 P value- <0.**0005**				
	Preferred CS (n=48)		Preferred VD (n=312)	
	Number	Percentage	Number	Percentage
Job of husband				
Govt	16	21.05	60	78.94
Private	11	9.48	95	81.89
Business	14	12.5	98	87.5
Non working	7	10.6	59	89.39
X2 value –5.21 df- 3 P value-0.1568				
Gravida				
Primigravida	13	7.64	157	92.35
Multigravida	35	18.42	155	81.57
X2 value –10.26 df- 1 P value- 0.**001**				
Previous mode of delivery				
h/o Previous LSCS	24	45.28	29	54.71
h/o prev normal	11	8.02	126	91.97
X2 value – 51.58df- 1 P value- < 0.**0005**				
Source of information				
Doctor	18	9.42	173	90.57
Family members	21	19.62	86	80.37
Friends	9	14.51	53	85.48
X2 value – 6.26 df- 2 P value- 0.**0435**				
	Preferred CS (n=48)		Preferred VD (n=312)	
	Number	Percentage	Number	Percentage
decision about delivery				
Doctor	42	14.09	256	85.9
Self	5	8.06	57	91.93
X2 value – 1.64 df- 1 P value-0.1998				
Complications in previous pregnancy				
Yes	11	68.75	5	31.25
X2 value –44.49 df- 1 P value- < 0.**0005**				

A] Age

Maximum number of participants in our study were in the age group of 21–25 years (65.83 %) followed by 26-30 years (17.5 %). Very few participants wereseen in the age groups above35 years (1.39%). Saxena et al (2019)[8] reported that 74% (n = 196) of the study population belonged to the age group of 18-25 years. The young, as well as, the elderly women did not show any specific

preference for VD or CD. Similarly in our study we obsereved was no statistical difference among the different age groups in regardto preference for mode of delivery.

B] Education

We observed that 83.33% of the participants had education up to 12th class only. We observed that 14.44 % participants had graduation and post- graduation level education respectively. Only 1.67 % of study participants were illiterate. Saxena et al (2019)[8] observed that the educational status of the women have statistically important difference, with lesser educated women preferring VD, and more educated women preferring CD as their mode of delivery. It is considered that the less educated women were influenced by the opinion of senior ladies in the family, who would have experienced VD. The preference for CD by 'more educated' women represents their 'independent thinking'. These women are likely to benefit from detailed discussion about risks and benefits of CD and VD, so that they could make an informed choice.

C] Rural or Urban background & Economical Background

We observed that 66 % participants were from rural background. Almost 65% of study participants belonged to the lower socioeconomic group. Majority of the Indian population uses private hospital for healthcare services. Since our hospital is a government hospital, very few participants (6.38 %) belonged to the higher income group opted for it. We found that considerable number of women from upper income group preferred cesarean section. Thus we can conclude that people with stable income and from affluent group have more preferences for cesarean section. (P value- <0.0005). Similarly Kamala Verma et al[9] observed that, poor and middle-class women choose vaginal delivery due to a lack of knowledge or not afford the operative process's cost. It was found that a high percentage of women of high socioeconomic status preferred caesarean delivery on maternal request. We observed that occupation wise husband with Govt jobs, Private jobs, Business, Non working have preference for LSCS in 21.05 %, 9.48%, 12.5% and 10.6% women. the difference for particular mode of delivery is statistically not significant. Varghese et al 2016[10] from Punjab, and Poojan Dogra et al (2017)[11] from Himachal Pradesh, also reported similar findings. We observed that women from upper middle class do prefer cesarean section more commonly.

D] Preferred mode of delivery : We observed that 86.66 % of women in our study had preference for vaginal delivery due to the benefits like natural process (100%), short hospital stay (96.15%), fear of surgical operation (92.94%), prolonged bed rest after operative procedure (89.74%), speedy recovery(44.87%).Those who were given preference for cesarean delivery (13.33), opined that they are preferring cesarean due to fear of pain(93.75%), wanted permanent contraception i.e. tubal ligation(25%), fear of injury during labour(58.33%), advice from family members, husband or treating physian (52%), safety of mother and baby (41.66%) Verma A et al (2021)[9] observed that out of the 272 mothers who delivered at their institution, majority 265 (97.43%) of women said to have a preference for VD while only 7 (2.57%) had a preference for CS. Verma A et al (2021)[9] found significant association of parity with mode of delivery as chances of CS dropped up to three times(from 21.03% to 6.90%)with increase in number of children (1-2 v/s >2). We also observed significant association (p value o.oo1) of gravida with mode of delivery.

In the present study we found that majority126 (91.97%) of women who had a VD in previous pregnancy had a preference for same mode of delivery in current pregnancy while on the contrary, 45.28% of (24) women who had a CS in previous pregnancy preferred same mode of delivery in current pregnancy. Still we recommend after proper counselling of patient and relatives and fulfilling criteria for VBAC, we must try for VBAC. Our findings are almost in accordance with the finding of Saxena et al.[8]

E] Gravida

We observed that 47.22 % participants were first gravida while 52% participants were multi gravida. No statistical difference according to gravida status for mode of delivery.

F] Past obstetrics history - In the present study we found that majority 126 (91.97%) of women who had a VD in previous pregnancy had a preference for same mode of delivery in current pregnancy while on the contrary, 45.28% of (24) women who had a CS in previous pregnancy preferred same mode of delivery in current pregnancy. Still we recommend after proper counselling of patient and relatives and fulfilling criteria for VBAC, we must try for VBAC. Our findings are almost in accordance with the finding of Saxena et al.[10]

G) Comparison of various factors and preference of mode of delivery- We found that statistically significant difference was present for mode of delivery with respect to Income status, Gravida, h/o Previous LSCS, Source of information, Complications in previous pregnancy and Comorbidities.

Reasons for choosing mode of delivery

Reason	Number	Percentage
For vaginal delivery (n=312)		
It is natural	312	100%
Short hospital stay	300	96.15%
Fear of	290	92.94%
Surgical operation		
Prolonged bed rest after operative procedure	295	89.74%
Speed recovery	280	44.87%
Advice and/or Experience for vaginal delivery	140	
For cesarean delivery(n=48)		
Fear of labour pain	45	93.75%
Tubal ligation	12	25%
Advice from others	25	52%
Fear of injury during labour	28	58.33%
Safety of mother andbaby	20	41.66%

It is always topic of controversy to do cesarean section or vaginal delivery as early cesarean may increase suspicion. There is dilemma and confusion in mind of treating doctor about vaginal and cesarean section. Proper counselling of patient and relatives may change this. This needs adequate counselling of patient and relatives during ANC check up . Officially it is decision of specialist regarding mode of delivery on obstetric indications, but some practitioners are inventing newer indications like cesarean on patients demand and that too on some specific date with religious importance to it i.e. Muhurt. This practice doesn't support by standard textbook of obstetric and no medicalteacher in institute is teaching the resident doctors regarding this indication i.e. cesarean on demand for their cases. While doing this study are observed majority of cases (86.66%) gives opinion about their mode of delivery with information they got from relatives, neighbors, nursing staff and specialists. Level of education of cases and socioeconomic status definitely interferes with making decision regarding mode of delivery. Low socio-economic status with less education may request for vaginal route of delivery for reasons like early recovery and early resumption of work for financial purpose. Higher secondary and postgraduate educatedwomen with financial independence of their family and better understanding ofpros and cons of cesarean verses normal delivery, less pain tolerance preferscesarean as a mode of delivery and those who completed their delivery with two child norm feel that cesarean with tubal ligation as a better choice. One of the factors interfering with decision in cases of >=1 previous 1 cesarean makes their decision regarding this time withexperience of previous normal delivery or cesarean. Registered and unregistered cases as per WHO criteria, unregistered cases may be in confused mind about making proper decision. Registered one get opportunity of proper counselling. Previous uterine scar cases by specialized counselling by senior regarding possibility of VBAC,, patient may prefer vaginal mode of delivery.

CONCLUSION

Overall study concludes, the world has witnessed rise in cesarean section rates over past few decades due to advent of surgical techniques, anaesthesia, antibiotics, blood bank facilities and transformation, Presently literature shows measures to reduce incidence of cesarean section by VBAC, ECV in breech, ventouse delivery, etc. So we tried in this study to know the attitude, knowledge and preferences regarding mode of delivery. Majority of women irrespective of gravida, parity, previous obstetric history of preferred vaginal delivery as compared to cesarean section. Factors like history of previous cesarean section, economical status, counselling in antenatal clinics by specialist, knowledge provided by near relatives and paramedics may influence in making decision regarding mode of delivery. From specialist obstetricians view preference should be given to vaginal delivery and cesareans should be done only for obstetric indications rather than misleading indication like cesarean sectionon demand.

REFERENCES

1. World Health Organization. Monitoring emergency obstetric care: a handbook. Geneva, Switzerland, 2009.
2. Sandall J, Tribe RM, Avery L, Mola G, Visser GH, Homer CS, Gibbons D, Kelly NM, Kennedy HP, Kidanto H, Taylor P, Temmerman M. Short-term and long-term effects of caesarean section on the health of women and children. Lancet, 2018 Oct 13; 392(10155): 1349-1357. doi: 10.1016/S0140-6736(18)31930-5. PMID: 30322585.
3. Sandall J, Tribe RM, Avery L, Mola G, Visser GH, Homer CS, Gibbons D, Kelly NM, Kennedy HP, Kidanto H, Taylor P,Temmerman M. Short-term and long-term effects of caesarean section on the health of women and children. Lancet, 2018 Oct 13; 392(10155): 1349-1357. doi: 10.1016/S0140-6736(18)31930-5.PMID: 30322585.
4. OmonaKizito (2021) Determinants of caesarean

section rates in private-notfor-profit healthcare facilities: St. Joseph's Hospital Kitovu, Cogent Medicine, 8: 1, 1928939, DOI:10.1080/2331205X.2021.1928939.

5. TemesgenTamirat, LonsakoAbute. (2022) Predictors of Non- Spontaneous Vaginal Delivery Among Mothers Who Gave Birth in Wachemo University Specialized Hospital, Hossana, Ethiopia, 2021. Patient Related Outcome Measures 13, pages 9-19.
6. Lavender T, Hofmeyr GJ, NeilsonJP, Kingdon C, Gyte GM.Caesarean section for non-medicalreasons at term. Cochrane Database Syst Rev, 2012 Mar 14; 2012(3): CD004660. doi: 10.1002/14651858.CD004660.pub 3. PMID: 22419296; PMCID:PMC4171389.
7. Ji, H., Jiang, H., Yang, L., Qian, X., & Tang, S. (2015). Factors contributing to the rapid rise of caesarean section: A prospective study of primiparous Chinese women in Shanghai. British Medical Journal, 5(11). Available at: https://bmjopen.bmj.com/content/5 /11/e008994.
8. Saxena RK, Ansari NFT, Balan A. Factors influencing women's choice of mode of delivery in rural Bangalore, India. Indian J ObstetGynecol Res, 2019; 6(1): 71- 77.
9. Verma A, Singh S, Nagargoje MM, Mishra SK, Singh S, Awasthi S.An analysis of preferences and practices related to the mode of delivery in Agra district of Uttar Pradesh. Int J Community Med Public Health, 2021; 8: 5310-7.
10. Varghese S, Singh S, Kour G, Dhar T. Knowledge, attitude and preferences of pregnant women towards mode of delivery in a tertiary care center. Int J Res Med Sci, 2016; 4: 4394-8.
11. Dogra P, Sharma R. Preferences of pregnant women regarding mode of delivery: a questionnaire-based study. Int J Sci Rep, 2017; 3(11): 292-5.