



CAESAREAN SECTION IN RURAL TAMILNADU – AN ANALYTICAL STUDY OF SELECTED VILLAGES IN POLLACHI TALUK, COIMBATORE DISTRICT

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ABSTRACT

In today's situation when the access to obstetric care is growing day by day there has been a concern over the rising Caesarean rates over the world. An increasing rate of caesarean section delivery poses a burden on the health system putting strain on the family and complicating maternal and child health. Hence, the study attempts to study the Caesarean Section in Rural Tamilnadu – An Analytical Study of Selected Villages in Pollachi Taluk, Coimbatore District with the objectives of understand the socio-demographic characteristics of the respondents and to study the risks factors that decides the caesarean section delivery. The data required for the study were collected from 135 respondents through structured interview schedule. The collected data were compiled, classified, tabulated and analysed with reference to the objectives of the analysis was done using tools like percentages and chi-square test. The results show that the c-section was more among those aged between 20-30 years, those who went private hospitals, fetal distress and placenta previa were also reasons for it. The Chi square results show that there is relationship between the social group and mode of delivery. The respondents belonging to the Backward and Most Backward groups have undergone the Caesarean Section more than that of the SC/ST respondents.

KEYWORDS: Caesarean, women, Mother, Child, Maternal Age

INTRODUCTION

Caesarean sections are one of the most frequently performed operations in women. One of the most striking features of modern obstetrics is the inexorable increase in the CS rate. This escalating CS rate is a major public health problem as it increases the health risk for mothers and babies as well as the cost of health care compared with normal deliveries. It is difficult to identify an exact cause for the rising rates of caesarean sections. Medical, institutional, legal, psychological and socio-demographic factors play a contributing role. The increase in c-section delivery is also observed in developing countries which necessitate an in-depth understanding of the issue.

OBJECTIVES

The objectives of the study are:

- ✧ To understand the socio-demographic characteristics of the respondents.
- ✧ To study the risks factors that decides the caesarean section delivery.
- ✧ To suggest policy measures for the reduction of the caesarean section delivery.

HYPOTHESIS

- ✧ There is no significant relationship between the age and the mode of delivery of the respondents.
- ✧ There is no significant relationship between the Education and the mode of delivery of the respondents.

- ✧ There is no significant relationship between the social group and the mode of delivery of the respondents.

METHODOLOGY

Three villages in the Pollachi taluk of Coimbatore District – Kolarpatti, Nallampalli and Devanallur were the areas selected for the study.

The study was based on primary data. A sample consisting 135 respondents were selected for the study. Purposive random sampling method has been adopted. The data required for the study were collected during July and August 2015 through structured interview schedule. The collected data were compiled, classified, tabulated and analysed with reference to the objectives of the analysis. The data collected has been analysed using the statistical tools such as frequency tables and cross tabs in SPSS sheets. Pearson chi square test was used to compare the differences in use of augmentation between mode of delivery and other socio-demographic variables.

DISCUSSIONS

The analysis of the study is presented below.

- ✧ Age-wise classification analysis revealed that maximum number of women undergoing caesarean sections were in the age group of 25-30 years. This may be due to the trends of early marriage and lack of education resulting in high fertility in early ages.

Weight of Mother:-

Table - 1 Weight of Mother

Category (in Kgs)	No. of Respondents	Percentage
Less than 45	10	7.41
45-55	48	35.56
55-65	44	32.59
65 and above	33	24.44
Total	135	100

Table 1 depicts the weight of mother during delivery. 35.56 per cent of women weighed between 45 to 55 kgs and 32.59 per cent weighed between 55 to 65 kgs. For 24.44 per cent and 7.41 per cent weights were more than 65 kgs and less than 45 kgs respectively.

- ✧ When the religion of the sample respondents is considered, maximum of 94.07 percent women surveyed were Hindus while Christians formed 5.93 per cent.
- ✧ Social group of the respondents analysis reveal that more than one half of them belonged to Backward caste and 31.11 percent were from Most Backward Caste.
- ✧ Qualification analysis revealed that 54.81 percent of the respondents are graduates and upto HSC 45.19 percent of rural women are qualified.
- ✧ Working status of the mother is considered, out of the sample maximum of 86.87 percent are not working since they are house wives.
- ✧ When analysis of number of children is identified, maximum 70.37 percent of them have only one child and 29.63 percent of them have two children's in their family.
- ✧ Family economic status surveyed, the monthly income of 70(51.85 percent) respondents ranged between Rs.7500-Rs.10, 000. 26.67 percent group family income is between Rs.5000-Rs.7500 and the remaining 21.48 percent monthly income receives an amount of above Rs. 10000 and below Rs.5000.

Maternal Age:

Maternal age plays an important role in determining Caesarean Section. It is the instance of woman being of an older age at a stage of reproduction.

Table -2 Maternal Age

Category (in Years)	No. of Respondents	Percentage
Less than 25	2	1.48
25 – 30	118	87.41
30 – 35	10	7.41
35 and above	5	3.70
Total	135	100

Table 2 exhibits that 87.41 per cent of mother's were in the age group of 25-30 years and the remaining (12.59 per cent) were more than 30 years of age.

It is found that young mothers today are undergoing Caesarean Section which may be due to the changing life styles.

Birth Weight of Child:-

Another important factor for the determining Caesarean Section is large size of baby at birth. Large size babies are at higher risk of being delivered by normal delivery. The birth weight of child is depicted in table 3.

Table - 3-Birth Weight of Child

Category(in Kgs)	No. of Respondents	Percentage
Less than 3	4	2.97
3-3.5	113	83.70
3.5 and above	18	13.33
Total	135	100

The birth weights of the babies were between 3 to 3.5 kgs for 83.70 per cent, and for 13.33 per cent of babies weighed more than 3.5 kgs.

It is seen from the table that babies with birth weight more than 3 kgs and above has been delivered by Caesarean Section.

Birth Order:-

Birth order refers to the order a child is born, for example first born, second born etc., Birth order is often believed to have a profound and lasting effect on psychological development. The order of birth can be divided into two categories (i) order 1 and (ii) order 2.

Table - 4 Birth Order

Category	No. of Respondents	Percentage
1	97	71.85
2	38	28.15
Total	135	100

The birth order for 71.85 per cent respondents was of first order and for remaining 28.15 per cent, it was second order.

Place of Delivery:-

The place of delivery is one of the important factors that affect the delivery outcome. In fact the government and private institutions have very different

characteristics in case of Caesarean births. Caesarean Section is higher in the private institutions as evidenced from the 71.11 per cent of the respondents delivering in private hospitals while the Caesarean Sections in government hospitals was lesser as reported by 28.89 per cent.

Complications in Emergency Caesarean Section and Elective Caesarean Section:-

Table 5 Complications in Emergency Caesarean Section and Elective Caesarean Section

Complications	Emergency Caesarean Section		Elective Caesarean Section	
	No.	Percentage	No.	Percentage
Anemia	84	71.19	10	58.82
Urinary Tract Infection	20	16.95	2	11.76
Wound Sepsis	10	8.47	3	17.66
Head Ache	4	3.39	2	11.76
Total	118	100	17	100

The follow up complications after one month of the Caesarean Section anemia was found among 71.19 per cent patients who had an emergency Caesarean Section, whereas in Elective Caesarean Section anemia was found for 58.82 per cent patients.

Indications for Caesarean Section:-

The various indications for Caesarean Section were failed progress of labour, fetal distress, placenta previa etc., and Breech presentation.

Table 6 Indications for Caesarean Section

Category	No. of Respondents	Percentage
Failed progress of labour	30	22.22
Fetal distress, Placenta Previa etc.,	87	64.44
Breech presentation	18	13.34
Total	135	100

The table elucidates that fetal distress, placenta previa were the most frequent indication (64.44 per cent). After that failed progress of labour accounted for 22.22

per cent, for 13.34 per cent breech presentation are the leading causes of Caesarean Section.

Hypothesis Testing:-**Table - 7 Age of the Mother and Mode of Delivery**

Mode of Delivery	Age				Total
	Less than 25 years	25 - 30	30 - 35	35 years and above	
Normal	5 (17.86)	12 (42.86)	9 (32.14)	2 (7.14)	28 (100)
Caesarean Section	18 (16.82)	55 (51.40)	24 (22.43)	10 (9.35)	107 (100)
Total	23 (17.04)	67 (49.63)	33 (24.44)	12 (8.89)	135

H₀: There is no relationship between age and mode of delivery.

Calculated Value: 1.3219, Table value: 7.81, Degrees of freedom: 3, Significance: 5%

The calculated value of X² is less than the table value at 5 per cent level of significance. The null hypothesis is accepted. Therefore, there is no relationship between the age of mothers and mode of delivery.

Table -8 Social Group of Mother and Mode of Delivery

Mode of Delivery	Social Group			Total
	BC	MBC	SC / ST	
Normal	11 (39.29)	10 (35.71)	7 (25.00)	28 (100)
Caesarean Section	66 (61.68)	32 (29.91)	9 (8.41)	107 (100)
Total	77 (57.04)	42 (31.11)	16 (11.85)	135

H₀: There is no relationship between social group and mode of delivery.

Calculated Value: 7.3394, Table value; 5.99, Degrees of freedom: 2, Significance: 5%

The calculated value of X² is greater than the table value at 5 per cent level of significance. The null hypothesis is rejected. Therefore, there is relationship between the social group and mode of delivery. The respondents belonging to the Backward and Most Backward groups have undergone the Caesarean Section more than that of the SC/ST respondents.

SUGGESTIONS AND RECOMMENDATIONS

- ◆ A properly organized team-work approach to prevent the isolation of practitioners;
- ◆ A policy of compulsory second opinion for all Cs (planned or not);
- ◆ Regular medical audits of the obstetrical practice.

- ◆ The Guidelines should be clearly available for all physicians at the hospital;
- ◆ Individual feedback to the obstetricians about their practice including CS rates possibly through face to face interviews;

CONCLUSION

In today's situation when the access to obstetric care is growing day by day there has been a concern over the rising Caesarean rates over the world. In safe motherhood strategies it is universally accepted that provision of essential obstetric care and ensuring institutional delivery are the best options to reduce maternal mortality in all contexts. Institutional delivery provides an opportunity to deal with delivery complications. More importantly it also helps the doctor to decide on the type of delivery to be performed, normal or Caesarean, based on the intensity of complication.

An increasing rate of caesarean section delivery poses a burden on the health system. The unnecessary caesarean deliveries put strain on the family and complicates maternal and child health. Therefore, the decision to perform a C-section delivery must be taken with utmost care without any profit motivation. It is suggested that better doctor-patient communication, doctor's obligation to reduce the rate of CS, government's initiative to develop better health care infrastructure and strict vigil on the private health institutions to reduce the high and increasing rate of caesarean delivery.

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