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Study On Rising Trends Of Caesarean Section(C- Section): A Bio-Sociological Effect

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Abstract:
Objective: *To study caesarean section rate among doctors in S.V. Medical College, Tirupati. The rising rate of caesarean section may be due to Bio-Sociological effect but not due to commercialisation. Hence present study is under taken.*
Study Subjects And Methods: *Women doctors in S.V. Medical College, Tirupathi,were selected between 18-45years of age who were willing to answer the preformed survey questionnaire during Feb-May 2015 .*
Results: *A total 100 physician mothers were studied. Of that 60% underwent caesarean section between 2000 to 2015, 40% have normal vaginal deliveries. The present study suggest that doctor mothers according to collected data before 2000 vaginal deliveries was 67% and caesarean was 33% between 2001-2005 vaginal was 31% caesarean was 69% and in 2006-2010 vaginal 44% and caesarean 56% after 2011 vaginal was30% and caesarean was70%. Among the overall caesarean sections the Elective ranks 58% and Emergency stands for 42%.*
Conclusion: *This study clearly indicates that the rapid socio-economic changes and the outlook towards medical intervention by the women, families and society are increasingly responsible for the current high incidence of caesarean section in many states and urban centres. From doctors point of view it is a defensive medicine to have better outcome.*
Key Words: *Rising trends of Caesarean-section, Medicalisation in women doctors, Bio- Socioeconomic factors, defensive medicine.*

I. Introduction:

In doctors caesarean section rates are seems to be very high and cannot done for the commercial benefit of surgeons. Usually rising rates of caesarean section is alleged to be due to commercialisation of medical services. The supporting evidence is brought forward that is more number of caesarean sections is done in private sector compared to public sector. But we propose that the underlying cause may be due to bio-sociological effect . In1985 the World Health Organization (WHO) stated: "There is no

justification for any region to have CS rates higher than 10-15%", [1]A real cause for rising caesarean section is rapid socio-economic changes, medicalisation of women's health, altered family structure, changing role of women in society, biological urge to have good off-springs, and good strength of children in the competitive world.[2] Medicalisation of human body has received much attention both theoretically and empirically in the last few decades [3]**.** Medicalisation has been defined as a 'process whereby more and more of everyday life have come under medical dominion, influence and supervision. One example of the medicalisation of the human body is caesarean-section delivery.The rising trend in c-section rates, in both developed as well as developing countries, the higher preference accorded to this mode of delivery points to the growing medicalisation of women's health.[4] Studies have shown over the past few decades, child birth has become too 'medicalised' and the biological urge to propagate their families, raise concern for the mother's health, but not the unnecessary obstetrical intervention. According to Brue kens P (2001) Over- medicalisation of maternal care has become a worldwide epidemic.[5,6]

Gibbons et al., (2010) reported that United States of America, the proportion of caesarean birth to total births increased from 20.7 per cent in 1996 to 31.1 per cent in 2006.[7]As per the data by **Family Welfare Statistics in India (2011**) the overall rate for caesarean deliveries was 36% and it shows Andhra Pradesh requires special mention for the highest increase of institutional delivery and caesarean births in the past 15 years .It is Interesting to note that the rural-urban difference in c-section birth is highest in the state and over 30 percent of the deliveries in urban areas are taking place through c-section. In our Institute ,S.V. Medical College, in the year 2014 caesarean section rate is 25%. Most of the studies emphasized the role of health-care

institutions in augmenting the c-section delivery a combination of demographic, socio-economic, institutional factors, determines the rate of caesarean section delivery in any region.[8]

There are possibly two general explanations to this increased c-section trend. First, it is mostly considered that the increase in caesarean section births worldwide is the result of overuse of healthcare facilities for the motive by the hospitals, that is increased institutional deliveries. In exclusive teaching and maternity hospitals there is high prevalence rate of caesarean sections is 24.4%. This is because most of the mothers with complications referred from peripheral rural hospitals to tertiary care or to private institutions. Second, it is also considered that there is an increasing demand from women even in developing countries for Caesarean section to avoid pain with the increasing economic and educational advancement.[9] Studies also suggest that one of the important factors behind performance of c-section could be high education background of women. According to reproductive ecology some other factors influencing women are increased rates of infertility, modern reproductive techniques, precious pregnancy, increased risk factors, multiple births (twins), more age of women psychology to have two children leads to increased demand for caesarean section. Psychological adjustment to small families, they have fear complex about the risk of foetal outcome, new born chances for survival, growth, long term health and pshycosocial development also fear of labour.[8] Mothers have biological urge to create families and their off springs without risk factors and behavioural problems, fear of labour and also religious factors, they will demand for section.[10]

The social prejudice is that Money may be motivating doctors to do more caesarean sections among institutions and found that there was disparity in the Caesarean section rate between doctor mothers and non-doctor mothers when the surgical procedures were scheduled in advance which is more in doctor mothers. Even though morbidity and mortality is high in caesarean section doctor mothers are choosing, in spite of fear complex.

Therefore the current paper will be an attempt to explore the real indications for rising caesarean sections by analyzing the data on doctor mothers who underwent caesarean section with various reasons and the determinants for the increasing trend, considering both institutional aspects as well as socioeconomic causes.

II. Methods/Study Design:

This study was carried out at Sri Venkateswara Medical College in Tirupathi. The study subjects included female doctors in reproductive age - groups between 18-45 years and statistical data collected. A total of 100 subjects were interviewed using a questionnaire. The purpose of the study was explained to them and oral informed consent was obtained. Care was also taken to ensure privacy and confidentiality of the interview as part of the study. For a better understanding an attempt has been made in the study to differentiate the preference in terms of doctor's choice or request from women. We are comparing the rising rates caesarean section rates in doctors with the rates in general population, and major intentions leading to caesarean section delivery.

III. Results:

A total 100 physician mothers were studied. Of that 60% were under went caesarean section between 2000 to 2015, 40% have normal vaginal deliveries. It has already been pointed out that the performance of caesarean section delivery depends on different medical emergencies. However the present data shows that, the caesarean section rates in doctor mothers are more when compared to general population, there it is around 30%. The present study suggest that doctor mothers according to collected data before 2000 vaginal deliveries is 67% caesarean is 33% between 2001-2005 vaginal is 31 % caesarean is 69% between 2006-2010 is vaginal 44% and caesarean is 56% after 2011 vaginal is 30% caesarean is 70% ,among the overall caesarean sections the Elective ranks 58% and Emergency stands for 42% **.** For better understanding of the issues, the influence of background variables on c-section deliveries in the present study is shown in **Tables.**

Table: 1 No. Of Doctor mothers under gone c-section between 2000 -2014 in S.V medical college Tirupati.

Year	**Type of delivery and number percentage**	
	Vaginal	c-section
< 2000	67% (12)	33% (6)
2001-2005	31% (8)	69 % (18)
2006-2010	44% (10)	56% (13)
>2011	30.%(10)	70% (23)

Table- 1 shows before 2000 percentage of caesarean section deliveries is less, its gradually increasing in recent years

Table-2: No. Of Doctor mothers under gone c-section under various determinants in S.V.Medical college Tirupathi

S.NO	Type Of Determinants	% OF Type Of Deliveries		Chi-Square Test	P-Value
		Vaginal	C-Section		
1	**AGE** 25-30	9(23%)	31 (77%)		
	30-35	27(61%)	17 (39%)	9.89	0.0071
	>35	4(25%)	12 (75%)		

Table -2 shows caesarean section rate increases when the age at first pregnancy is above 30 years

Table: 3 Percentage Of Type Of C-Section Among Doctor Mothers In S.V Medical College Tirupati

S.NO	Type of c-section	Percentage
1	ELECTIVE	(58%) 35
2	EMERGENCY	(42%)25

Table-3 shows elective caesarean section means planned surgery rate is more because of demand factor

Table: 4 Distribution Of Ellscs Rates-Indications

ELECTIVE	INDICATIONS	
	OBSTETRICIAN'S CHOICE	WOMEN'S CHOICE
2000		1
2001-2005	1(8%)	11(92%)
2006-2010	2(33%)	4(67%)
2011-2014	3(19%)	13(81%)

Table-4 shows caesarean selection on demand is more in present decade compared to past decade

Table: 5 Year-Distribution Of Elective-Indications On Demand

ON DEMAND	<2000	2001-2005	2006-2010	2011-2015
FEAR OF LABOUR		2		3
FERA OF FOETAL RISK		1	2	5
PRECIOUS PREGANACY		1	2	3
CPD NO TRAIL	1	7		2
TOTAL	1	11	4	13
PERCENTAGE	3.4%	34.93%	13.78%	44.82%

TABLE-5 shows on demand caesarean selection rate is more due to fear of foetal risk along with mild pregnancy complications not willing for trail of labour in post dates, mild PIH and mild CPD etc

IV. Discussion:

Currently the caesarean birth rates in many developed and developing countries far exceed the tolerable limit specified by the WHO that is 5-15% indicating unnecessary use of this intervention[1]. In the present study the rate of increased percentage of c-section rate among Doctor mothers are twice when compared with over all worldwide rates that is around 30%. The overall rate of caesarean section in AP is about 36.4% in that public sector 25.3% and 48.1% in private sector in total India 23.7%,18.1% and 21.41% respectively(DLHS-3 data).[11,12] For Obstetricians there was disparity in treating between doctor mothers and non-doctor mothers the surgical procedures were scheduled. "If the obstetrician is deviating from the best treatment because of their own financial incentive, the patient [who is a] doctor would be able to push back against the obstetrician. But that might not be the case for non-doctors because they simply do not have the medical knowledge to know whether or not this Caesarean section is the appropriate [method of delivery] for them.

We have prejudice that in private sector they are doing for economic incentives. This is because caesarean section rates are seems to be very high in doctors. In doctors caesarean sections Rising rates cannot done for the commercial benefit of surgeons, in medical settings they were paid a flat salary. of caesarean section is presumed to be due to commercialisation of medical services. This is supported by that the act of more caesarean sections is done in doctors in private sector .This is due to changing scenario of rapid socio-economic changes, medicalisation of women's health, altered family structure, changing role of women in society, biological urge to have good off-springs, good strength of children in the competitive world. There is an increasing demand from women even in developing countries for Caesarean section due to fear complex. The benefits most often attributed to delivery by caesarean section were reduction of pain and convenience for family or health professionals.[13] In India ,religious factors also pay a role, most of the parents likely to have their birth of the baby at auspicious moment as per the astrologist advice or on some special day on demand of mother-in-law. The above said reasons can be explained by the increased Elective (58%) and Emergency (42%) percentages among doctor mothers. These results support no disparity in the caesarean section rate between doctor mothers and non-doctor mothers and clearly explain the request from women (caesarean on demand) the

preference for increasing caesarean section intervention during childbirth may, therefore, be an outcome of these changes.

For a better understanding of the issues, the influence of background variables on c-section deliveries in the present study have shown in **Tables.** For the purpose of the study, some of the risk factors ,demand factors and the institutional factors are added as model, all the risk factors show significant impact on c-section. Caesarean deliveries are significantly more likely to occur among mothers of high age, those aged over 30 years**.**[14] The present study also the increased rate of caesarean sections is observed among doctor mothers age lying between 30-35 years . Chances of caesarean delivery are more among doctor mothers (60%)with a high educational background and from high-income families. Similarly, caesarean section deliveries are more likely to occur in urban areas compared to rural areas. Recent studies suggest that women and their providers prefer medicalized births, due to a fear of potential risks and increased comfort with technology.[15]From obstetrician view nobody will accept minor degrees of risks, to have good outcome ,the trends of caesarean section is increasing . It is a defensive medicine, to reduce perception of risk on mother, on doctor and on hospital administrators but not for economic incentives.

V. Conclusion:

The overall study brings out the current trends in increasing incidence of caesarean section delivery with focus on doctor mothers in Tirupathi. An empirical and conceptual exploration of how delivery decisions take place between the professional medical world and society has been brought out. It is evident that there has been a change in the outlook towards caesarean section both within the society as well as from medical professionals. However, it is not merely the medical profession but the society, at large, are also responsible for the rapid increase in c-section currently. Often only the medical profession's motive behind increasing caesarean section comes out in open. This study clearly indicates that the rapid socio-economic changes and the outlook towards medical intervention by the women, biological urge to have better off springs, decision making choice to women, families and society are increasingly responsible for the current high incidence of caesarean section in many states and urban centres in the country.

We don't see birth as a disaster waiting to happen. Obstetricians needs to move ever close to evidence based medicine. Caesarean section is essential for preventing the worst outcome." Caesarean section rate may be matter of finding a middle ground between two approaches to birth-risk between vigilance towards the disaster waiting to happen and support for the physiologically sound process."

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