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A Study on Knowledge and Attitude on mode of delivery among Primi-Gravida Antenatal(AN) Mothers attending AN clinics in Dindigul Town, Tamilnadu.

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ABSTRACT
Background : *Births in a private health facility in India that were delivered by caesarean section are 63.8% (NFHS-5 conducted in 2020-21) from 51.3%(NFHS-4 conducted in 2015). Cesarean section (C-section) deliveries are increasingly becoming common in India. WHO says that caesarean section rate higher than 10% are not associated with reductions in Infant and maternal mortality. 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. Therefore the AN mothers should be educated about the significance, merits and demerits of vaginal delivery and c-section. This study tries to find out the association between knowledge and attitude on mode of delivery and the selected socio-economic and demographic variables among the 83 Primi-Gravida AN mothers.*
Methods and materials: *This study is an exploratory quantitative study. The main objective of the project is to establish the association of knowledge and attitude levels on mode of delivery with selected Socio-economic demographic variables of the study population. 83 Primi-Gravida AN mothers are the sample universe and necessary data were collected through pretested interview schedule. The place of study is the Dindigul corporation area. Chi-Square Value analysis was followed to find out the significance of association between knowledge and attitude levels on mode of delivery with selected Socio-economic demographic variables of the study population.*
Findings and conclusion: *This study tries to find out the association between the knowledge and attitude of the 83 Primi-Gravida AN mothers and the mode of delivery and found that there is significant association between the level of knowledge on mode of delivery with selected variables under study such as education, Husband occupation and family income but there is no significant association of attitude with the above mentioned variables.*
Keywords: Primi-Gravida AN mothers, Mode of delivery, Cesarean.

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I. Introduction

Maternal health is an important aspect for the development of any country as the survival and well-being of mothers are important and inevitable for solving economic, social, and developmental challenges. Vaginal delivery is safest for the fetus and for the mother when the newborn is full-term at the gestational age of 37 to 42 weeks (Ninad M.Desai 2022). Caesarean section rates rising globally, though unequally, with increases projected to continue (WHO 2021). Caesarean section (C-section) delivery is a serious maternal health concern in the long run. C-section deliveries are higher in the southern states than in the other parts of India. (Roy N et.al 2021). Cesarean birth may be directly and indirectly associated with negative child cognitive outcomes. The indirect association may occur through established links between cesarean birth and adverse child health outcomes, including asthma, type I diabetes, allergies and obesity that are also associated with impaired functioning and lower academic performance (Cain Polidano et.al 2017). Women who had C-sections

were 80 percent more likely to have complications than those who delivered vaginally, researchers report in the journal CMAJ (Lisa Rapaport et.al, 2019).

Levels of C-Section :

In Tamil Nadu, Births in a private health facility that were delivered by caesarean section are 63.8%,NFHS-5 2019-21 (IIPS and ICF 2021) from 51.3%, NFHS-4 2015-16 and Births in a public health facility that were delivered by caesarean section are 36.0%(NFHS-5) from 26.3%(NFHS-4). Infant Mortality Rate of Tamil Nadu was decreased from 19 per 1000 live births (Sample Registration System–SRS, 2016) to 15 per 1000 live births (SRS 2018) and Similarly Maternal Mortality Rate(MMR) of Tamil Nadu was 66 per one lakh live births (SRS 2014-16) and 60 per one lakh live births (SRS 2016-18).

Recommendations of WHO:

The pace of points decrease in IMR and MMR and the increase in C-sections rates, recalls WHO conclusions (WHO 2015):

1. Caesarean sections are effective in saving maternal and infant lives, but only when they are required for medically indicated reasons.
2. At population level, caesarean section rates higher than 10% are not associated with reductions in maternal and newborn mortality rates.
3. 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.
4. Every effort should be made to provide caesarean sections to women in need, rather than striving to achieve a specific rate.
5. The effects of caesarean section rates on other outcomes, such as maternal and peri-natal morbidity, paediatric outcomes, and psychological or social well-being are still unclear.

Background of the study

An effective education during pregnancy by improving levels of attitude, and also considering the role of optimism education in decreasing stress and its positive effects on mental health and attitude of individuals, it is recommended that this education is provided for all pregnant women during pregnancy care because it is effective in creating a positive attitude towards natural delivery (Mahin Esmaeili Darmian et.al, 2018). A cesarean delivery might put women at a slightly increased risk for ectopic pregnancy and stillbirth in future pregnancies (Robert Preidt 2014). Since 2008-09, cesarean-section deliveries — also known as C-section — have doubled in India at both government and private hospitals (Himani Chandna 2019). It must be accepted that caesarean section delivery carries somewhere between 5 and 10 times more risk than that of vaginal delivery (Dr. Rema V. Nair, 2019). C Section increases maternal morbidity and cost of delivery, therefore needs attention from public health perspective (Sreetama Chakrabarti1, 2017).

According to new research from the World Health Organization (WHO), caesarean section use continues to rise globally, now accounting for more than 1 in 5 (21%) of all childbirths. This number is set to continue increasing over the coming decade, with nearly a third (29%) of all births likely to take place by caesarean section by 2030, the research finds(WHO 2021).

"**Caesarean sections are absolutely critical to save lives in situations where vaginal deliveries would pose risks, so all health systems must ensure timely access for all women when needed**," said Dr Ian Askew, Director of WHO's Department of Sexual and Reproductive Health and Research and the UN joint programme, HRP . "**But not all the caesarean sections carried out at the moment are needed for medical reasons. Unnecessary surgical procedures can be harmful, both for a woman and her baby**."

A vaginal birth is usually the safest way for baby to be born**.** Cesarean can be done because of health problems or pregnancy complications. Unplanned (emergency) caesareans can happen when there are problems during labour. Every AN mother should be educated about merits and demerits of vaginal births as well as c-section well in advance.

The main purpose of the present study is to assess the knowledge and attitude levels among Primi-Gravida AN mothers about the mode of delivery so as to improve the maternal health. Considering health consequences, it becomes necessary to evolve suitable strategies to reduce the occurrence of C-Section deliveries in Tamil Nadu.

Statement of the problem

An exploratory study to assess and associate their knowledge and attitude level among Primi-Gravida AN mothers based on the selected socio, economic and demographic variables regarding mode of delivery.

Objectives

- To assess the knowledge and attitude scores on mode of delivery among Primi-Gravida AN mothers with selected Socio-economic demographic variables of the study population
- To establish the association of knowledge and attitude levels with selected Socio-economic demographic variables of the study population.

Hypothesis

H1: There will be significant difference between selected socio-economic demographic variables and knowledge and attitude levels on mode of delivery among AN mothers in Dindigul town.

H2: There will be no significant association between selected socio-economic demographic variables and knowledge, attitude scores on mode of delivery among AN mothers in Dindigul town.

Limitations

The study was limited to Primi-Gravida AN mothers

- who were attending different AN clinics in Dindigul
- who were willing to participate in the study
- who were present at the time of data collection

II. Research Methodology

Research Approach:

A quantitative exploratory research approach was adopted for the study

Sample universe:

Primi-Gravida AN mothers attending AN clinic in Dindigul town were the sample universe of the study. The sample size was 83 and purposive sampling technique was adopted for selecting the samples for the present study. To collect relevant data a schedule was prepared and pretested.

Criteria for the selection of sample:

Inclusion Criteria:

* Who were attending any one of the AN clinics in Dindigul?
* Who were Primi-Gravida AN mothers?
* Who were willing to participate in the study?
* Who were present during the data collection?

Description of tool:

Part A: It included the data related to the socio-economic demographic variables for the present study.

Part B: It consisted of structured knowledge questions. The tool consisted of 10 items with options for each question. A score of one was awarded for every right answer and score of zero for every wrong answer given.

Part C: It consisted of 10 questions to assess the attitude. All the questions were Likert scale questions. A scoring of 5 marks to 1 mark was given ranging from Very Good to Very poor.

Content validity and reliability of the tool:

The tool was prepared in consultation with 3 experts including Gynaecologist, Medical Officer and Nursing expert. The schedule was pretested in Samiyarpatti village among 10 Primi-Gravida AN mothers and necessary modifications were made based on expert advice. Karl Pearson correlation coefficient was computed and obtained 'r' value was 0.71. This indicates that tool was reliable for conducting study.

Distribution of Knowledge scoring on mode of delivery

Level of Knowledge	Score range	% Distribution
Low	34-39	0-36
Moderate	40-44	37-63
Good	45-50	64-100

Distribution of Attitude scoring on mode of delivery

Level of Attitude	Score range	% Distribution
Low	26-32	0-37
Moderate	33-37	38-63
Good	38-44	64-100

Analysis and Interpretation

Table1: Frequency and % distribution of socio-economic demographic profile

Socio-Economic Demographic Variables	N=83	
	frequency(f)	%
1. Age Group		
18- 20 Yrs	15	18.1
21- 23 Yrs	22	26.5
24 -26 Yrs	32	38.6
27-29 Yrs	11	13.3
30+ Yrs	3	3.6
2. Education		
Below High School	18	21.7
Higher Secondary / Diploma	39	47.0
Under Graduate	25	30.1
Post Graduate+	1	1.2
3. Community		
Scheduled Class	13	15.7
Most Backward Class	21	25.3
Backward Class	45	54.2
General	4	4.8
4. Locality of Residence		
Rural	50	60.2
Urban	33	39.8
5. Type of Residence		
Own	57	68.7
Rented	26	31.3
6. Type of Family		
Nuclear	42	50.6
Joint	41	49.4
7. Husband Occupation		
Salaried	25	30.1
Business	28	33.7
Labour	29	35.0
Unemployed	1	1.2
8. Monthly Family Income		
Less than Rs.10,000	18	21.7
Rs.10,000-20000	41	49.4
Rs.20,000+	24	28.9

As per table No.1, 38.6% of the respondent Primi-Gravida AN mothers were in the age group of 24-26 years and 3.6% were in the age group of 30+ which means that they might have either late married or pregnancy was delayed. 47% of the respondents were studied up to higher secondary / diploma course level. 30.1% were under graduate and 1.2% was holding post graduation degree. 54.2% and 4.8% were belonged to backward class and general community respectively. Out of 83 respondents 57 (68.7%) were living in their own houses and the rest 31.3% were lived in their rented house. 50.6% of the respondents families were nuclear families. 21.7% had the income of less than 10,000/- rupees per month and 28.9% of the respondents had the family income above 20,000/- rupees and the rest 49.4% had the income between 10,000 to 20,000/- rupees. About 60.2% of the respondents were living in semi urban areas and 39.8% in urban areas.

Given below Table 2, depicts that there is a significant association between the level of knowledge on mode of delivery with selected variables under study such as education, Husband occupation and family income and there is no significant association between level of knowledge on mode of delivery with selected variables under study such as age, community, locality of residence, type of residence and type of family. In other words selected variables like education, husband's occupation, family income made significant effect on knowledge levels of the Primi-Gravida AN mothers.

Table 2 : Association of knowledge level on mode of delivery with selected variables.

Variables	Low		Moderate		Good		Total		Chi-Square Value	DF*	Infer-ence
1. Age Group	F	%	F	%	F	%	F	%			
18- 20 Yrs	6	7.2	6	7.2	3	3.6	15	18.0	13.73	8	NS
21- 23 Yrs	5	6.0	14	16.9	3	3.6	22	26.5			
24 -26 Yrs	3	3.6	14	16.9	15	18.1	32	38.6			
27-29 Yrs	2	2.4	7	8.4	2	2.4	11	13.3			
30+ Yrs	0	0.0	2	2.4	1	1.2	3	3.6			
2. Education											
Below High School	11	13.3	6	7.2	1	1.2	18	21.7	35.08	6	S
HSC/ Diploma	4	4.8	26	31.3	9	10.8	39	47.0			
UG	1	1.2	11	13.3	13	15.7	25	30.1			
PG+	0	0.0	0	0.0	1	1.2	1	1.2			
3. Community											
Scheduled Class	6	7.2	6	7.2	1	1.2	13	15.7	10.20	6	NS
Most Backward Class	4	4.8	11	13.3	6	7.2	21	25.3			
Backward Class	5	6.0	25	30.1	15	18.1	45	54.2			
General	1	1.2	1	1.2	2	2.4	4	4.8			
4. Locality of Residence											
Rural	12	14.5	28	33.7	10	12.1	50	60.3	5.339	2	NS
Urban	4	4.8	15	18.1	14	16.8	33	39.7			
5. Type of Residence											
Own	13	15.7	31	37.3	13	15.7	57	68.7	3.758	2	NS
Rented	3	3.6	12	14.5	11	13.3	26	31.3			
6. Type of Family											
Nuclear	8	9.6	22	26.5	12	14.5	42	50.6	0.011	2	NS
Joint	8	9.6	21	25.3	12	14.5	41	49.4			
7. Husband Occupation											
Salaried	10	12.0	7	8.4	8	9.6	25	30.1	14.373	6	S
Business	3	3.6	15	18.1	10	12.0	28	33.7			
Labour	3	3.6	20	24.1	6	7.2	29	34.9			
Unemployed	0	0.0	1	1.2	0	0.0	1	1.2			

8. Monthly Family Income											
Less than Rs.10,000	3	3.6	9	10.8	6	7.2	18	21.7	15.412	4	S
Rs.10,000-20000	3	3.6	28	33.7	10	12.0	41	49.4			
Rs.20,000+	10	12.0	6	7.2	8	9.6	24	28.9			

DF* - Degrees of Freedom S – Significant of variables NS-Not Significant of variables

Table 3 : Association of Attitude levels on mode of delivery with selected variables.

Variables	Low		Moderate		Good		Total		Chi-Square Value	DF	Infer-ence
	F	%	F	%	F	%	F	%			
1. Age Group											
18- 20 Yrs	2	2.4	10	12.0	3	3.6	15	18.0	10.984	8	NS
21- 23 Yrs	5	6.0	16	19.3	1	1.2	22	26.5			
24 -26 Yrs	7	8.4	16	19.3	9	10.8	32	38.6			
27-29 Yrs	3	3.6	4	4.8	4	4.8	11	13.3			
30+ Yrs	0	0.0	1	1.2	2	2.4	3	3.6			
2. Education											
Below High School	3	3.6	13	15.7	2	2.4	18	21.7	3.705	6	NS
Higher Secondary/ Diploma	8	9.6	21	25.3	10	12.0	39	47.0			
Under Graduate	6	7.2	12	14.5	7	8.4	25	30.1			
Post Graduate+	0	0.0	1	1.2	0	0.0	1	1.2			
3. Community											
Scheduled Class	1	1.2	7	8.4	5	6.0	13	15.7	6.187	6	NS
Most Backward Class	5	6.0	12	14.5	4	4.8	21	25.3			
Backward Class	11	13.3	24	28.9	10	12.0	45	54.2			
General	0	0.0	4	4.8	0	0.0	4	4.8			
4. Locality of Residence											
Rural	10	12.0	28	33.7	12	14.5	50	60.2	0.09	2	NS
Urban	7	8.4	19	22.9	7	8.4	33	39.8			
5. Type of Residence											
Own	14	16.9	32	38.6	11	13.3	57	68.7	2.512	2	NS
Rented	3	3.6	15	18.1	8	9.6	26	31.3			
6. Type of Family											
Nuclear	11	13.3	18	21.7	13	15.7	42	50.6	6.613	2	NS
Joint	6	7.2	29	34.9	6	7.2	41	49.4			
7. Husband Occupation											
Salaried	5	6.0	13	15.7	7	8.4	25	30.1	1.912	6	NS
Business	5	6.0	16	19.3	7	8.4	28	33.7			
Labour	7	8.4	17	20.5	5	6.0	29	34.9			
Unemployed	0	0.0	1	1.2	0	0.0	1	1.2			
8. Monthly Family Income											
Less than Rs.10,000	7	8.4	8	9.6	3	3.6	18	21.7	5.397	4	NS
Rs.10,000-20000	6	7.2	26	31.3	9	10.8	41	49.4			
Rs.20,000+	4	4.8	13	15.7	7	8.4	24	28.9			

Table 3 depicts that there is no significant association between level of attitude on mode of delivery with selected variables under study such as age, education, community, locality of residence, type of residence, type of family, husband occupation and family income. In other words selected variables did not make significant effect on attitude levels of the Primi-Gravida AN mothers.

III. Conclusion

Though cesarean delivery is an essential and lifesaving surgery, it also causes women and babies at unnecessary risk of short and long-term health problems if performed, when there is no medical need. It gives a lot of burden to the individual and government in all aspects such as social, economical and health. Hence it is necessary to educate the women folk about the merits and demerits of both c-section and vaginal delivery. This study tries to associate the knowledge and attitude of the Primi-Gravida AN mothers with the mode of delivery and found that there is significant association between level of knowledge on mode of delivery with selected variables under study such as education, husband occupation and family income but it is not significant in association of attitude with the above mentioned variables.

IV. Recommendations

- AN mothers must be educated about the normal phases of vaginal delivery from 2nd trimester in their regular AN care
- Appropriate information should be given to AN mothers and her relatives about pros and cons of cesarean delivery as well as normal delivery
- Suitable mechanisms must be taken to counsel AN mothers when there is no medical need
- Relevant measures should be taken to relieve the patient and obstetrician stress
- Realising an increase in cesarean delivery rate a retrospective study can be undertaken to elucidate the cause and effect of c-section
- The authorities of government should strengthen the regulatory protocol on mode of delivery for private health facilities
- WHO recommends some non-clinical actions that can reduce medically unnecessary use of caesarean sections:
  - Educational interventions that engage women actively in planning for their delivery
  - Use of evidence-based clinical guidelines, to perform regular audits of cesarean section practices in health facilities, and providing timely feedback to health professionals about the findings
  - Requirement for a second medical opinion for a cesarean section decision in settings where this is possible.

Reference

[1]. Vaginal Delivery, Ninad M. Desai [1], Alexander Tsukerman [2] In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan., 2021 Oct 27. PMID: 32644623. Bookshelf ID: NBK559197

[2]. Rising rates suggest increasing numbers of medically unnecessary, potentially harmful procedures. WHO Departmental news. 16 June 2021

[3]. Roy N, Mishra PK, Mishra VK, Chattu VK, Varandani S, Batham SK. Changing scenario of C-section delivery in India: Understanding the maternal health concern and its associated predictors. J Family Med Prim Care 2021;10:4182-8. DOI: 10.4103/jfmpc.jfmpc_585_21

[4]. The relation between cesarean birth and child cognitive development by Cain Polidano, Anna Zhu and Joel C. Bornstein. PMCID: PMC5597642. PMID: 28904336 Published online 2017. doi: 10.1038/s41598-017-10831-y

[5]. C-section complication risk rises with mother's age by Lisa Rapaport. HEALTHCARE & PHARMA. APRIL 12, 2019.Available https://www.reuters.com/article/us-health-cesarean-idUSKCN1RN2SN

[6]. International Institute for Population Sciences (IIPS) and ICF. 2021.National Family Health Survey (NFHS)-5, *State and District Factsheets*, Tamil Nadu. Mumbai: IIPS.

[7]. Sample Registration System (SRS).SRS Bulletin 2016;Vol. 50; No.2, 2018,Vol.53; No.1; SRS 2014-16 SRS 2016-18 Registrar General, India, Ministry of Home Affairs, Govt. of India, 2-A Man singh Road, New Delhi 110 011.

[8]. Sample Registration System (SRS).Special Bulletin on Maternal Mortality in India 2014-16 and 2016-18; Registrar General, India, Ministry of Home Affairs, Govt. of India, 2-A Mansingh Road, New Delhi 110 011.

[9]. Human Reproduction Program. Department of Reproductive Health and Research World Health Organization Avenue Appia 20, CH-1211 Geneva 27, Switzerland © World Health Organization 2015

[10]. Comparative study of teaching natural delivery benefits and optimism training on mothers' attitude and intention to select a type of delivery: an educational experiment by Mahin Esmaeili Darmian,1 Sedigheh Yousefzadeh, 2 Tahereh Fathi Najafi,3 and Seyyed Vahid Javadi4. doi: 10.19082/7038. PMCID: PMC6092135. PMID: 30128094

[11]. Robert Preidt: C-Section May Raise Odds of Failed Pregnancy Later, TUESDAY, July 1, 2014. Available https://www.webmd.com/baby/news/20140701/c-section-may-raise-odds-of-failed-pregnancy-later-study

[12]. Caesarean deliveries have become an 'epidemic' in India — record 300% jump in last decade by Himani Chandna dt. 19.11.2019. available:https://theprint.in/health/caesarean-deliveries-have-become-an-epidemic-in-india-record-300-jump-in-last-decade/334291/

[13]. A clinical study on indications for caesarean section among Primi Gravida gravida in a tertiary care centre by Dr. Rema V. Nair, Dr. Sowbharnika C.P and Dr. Seetha P.M. Journal of Obstetrics and Gynaecology

[14]. Frequency and Indication of Emergency Caesarean Section in a Tertiary Care Hospital in Kolkata: Analysis of Secondary Data. Sreetama Chakrabarti1 National Journal of Community Medicine │Volume 8 │Issue 12 │Dec 2017