

## **Exclusive Breastfeeding Practice and Associated Factors among Mothers in Chitradurga Town**

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### **Abstract**

#### **Background:**

The WHO recommends Exclusive Breastfeeding (EBF) for a period of 6 months for optimal health and development of the child. In India, only 56% of Mothers match this standard. Individual factors such as the Education of the mother and the Number of ANC visits have been identified as potentially modifiable short- and long-term factors implicated in a woman's ability to successfully exclusively breastfeed, however there is very limited research examining these factors specifically for exclusive breastfeeding to 6 months duration. A positive association between the factors and the duration of Exclusive Breastfeeding could guide the legislative efforts in targeting the Infant and Under-5 Mortality rates and Maternal health.

#### **Aim:**

This study is aimed at investigating breastfeeding practices among mothers of Chitradurga town and identifying the factors associated with Exclusive Breastfeeding (EBF) among Mothers of Chitradurga town.

#### **Objectives:**

The objectives of this study were to identify the factors that favour the early cessation of Exclusive Breastfeeding (EBF) among Mothers of Chitradurga town and to establish the association between the practice of Exclusive Breastfeeding and the Number of ANC visits and also the Education of the Mother.

## **Methodology:**

A cross-sectional study was conducted for a duration of 2 months, among 200 randomly selected mothers visiting the Paediatric OPD in Basaveshwara Medical College and Hospital, Chitradurga. An informed consent was obtained from all the participants. A pre-designed, pre-tested and self-administered proforma was used to collect the data regarding the participants' work-related, health services-related and socio-demographic factors by face-to-face interview. The data thus obtained was analyzed using the IBM Statistical Package for the Social Services (SPSS) software.

## **Results:**

The majority of the Mothers (30%) were educated till the SSLC level. 63 Mothers (31.5%) exercised EBF for a period of at least 6 months and most of the Mothers (38.5%) exercised it for a period of 5 months. 58 Mothers (29%) each had completed at least 5 or 6 ANC visits. Upon using the Chi-Square Test of Significance, Education of the Mother and Number of ANC visits were found to be significant factors in influencing the period of Exclusive Breastfeeding (EBF).

## **Conclusion:**

Our efforts to establish the probable factors that favour early cessation of Exclusive Breastfeeding have borne the conclusion that Education of the Mother and Number of ANC visits made bear a significant Positive relationship with the number of months of EBF. This is an essential finding in understanding the reasons for insufficient breastfeeding practices and could prove to be the basis of health legislature targeting lower Infant and Under-5 mortality rates.

**Keywords:** ANC, Breastfeeding, Chitradurga, Education, Mother

## **Introduction:**

Breastfeeding is the process of feeding the infant with the secretion produced from the Mammary Glands as a result of Lactation. Exclusive Breastfeeding means that the infant receives only Breast Milk. No other liquids or solids are given – not even water – with the exception of Oral Rehydration Solution or Drops/Syrups of Vitamins, Minerals, Medicines. [1]

The World Health Organization recommends Exclusive Breastfeeding (EBF) for a period of 6 months for optimal health and development of the child. [2]

Exclusive Breastfeeding prevents 13% of all Childhood mortality; that is, at least 1.2 million Children, globally, every year [3].

Exclusive Breastfeeding provides for all the nutritional and fluid needs of the infant in the first 6 months of age as it is the perfect combination of Proteins, Fats, Carbohydrates and Fluids [4]. Exclusively Breastfed Children are at a much lower risk of infections [5-7] and it is the best and most cost-effective intervention to reduce Infant morbidities and mortalities [4].

Unfortunately, no more than 35% of infants worldwide are exclusively breastfed during the first 4 months of life [8].

Innumerable potentially dangerous myths around human breast milk discourage continued Exclusive Breastfeeding in both rural and urban populations in both developing and developed countries [9]. The doubts relating to the nutritional value of Breast Milk in comparison to Cow or Buffalo Milk aid the early onset of Complimentary Foods. Other factors that may hinder the continuation of Exclusive Breastfeeding by mothers are the prevalent Breastfeeding related Taboos, fear of irreversible change of Breast shape and size [10], presumption of inadequate production of Breast Milk by the Mother [11], among others.

The Infant Mortality rates (35.2 per 1000 live births) and Under-5 Mortality rates (41.9 per 1000 live births) [12] remain high in the country which could be lowered by achieving higher Exclusive Breastfeeding rates [13].

Over two-thirds of all deaths occurring worldwide during the first year of life are often associated with inappropriate feeding practices [14].

Sub-optimal Breastfeeding contributes to 45% of Neonatal infectious deaths, 30% of Diarrhoeal deaths, and 18% of Acute Respiratory deaths among the Under-5 years of age population in developing countries [15].

Breastfeeding and good nutrition for children are recognized as essential for achieving the Sustainable Development Goal 3: “Ensure healthy lives and promote well-being for all at all ages” which focuses on reducing the ‘Under-5 Mortality’ to at least as low as 25 per 1000 live births. Under-5 Mortality Rate in India as of 2018 was 37 per 1000 live births [16].

The necessity for the determination of the reasons for early introduction of Complimentary Foods to the infant and the inadequate period of Exclusive Breastfeeding is grave and a subject that demands urgent and extensive attention.

The detection of the more significant factors that favour early cessation of Exclusive Breastfeeding would not only aid in the elimination of these causes but also allow for the effective prioritization of the distribution of resources in targeting Infant Mortality and Under-5 Mortality rates and also Maternal Health.

Therefore, the purpose of this study is to assess Exclusive Breastfeeding practices and their associated factors among Mothers of Children less than 6 months of age in the Chitradurga town of India.

**Aim:**

This study is aimed at investigating the Breastfeeding practices and identifying the factors associated with Exclusive Breastfeeding among Mothers of Chitradurga town.

**Objectives:**

The objectives of this study were to identify the factors that favour the early cessation of Exclusive Breastfeeding among Mothers of Chitradurga town and to establish the association between the practice of Exclusive Breastfeeding and the Number of ANC visits and also the Education of the Mother.

**Materials and Methods:**

A cross-sectional study was conducted for a duration of 2 months, from September 2021 to November 2021, among 200 randomly selected mothers visiting the Paediatric OPD in Basaveshwara Medical College and Hospital, Chitradurga. The method of sampling used was 'Convenience Sampling'. Clearance from the Institutional Ethics Committee was taken before the study was started. An informed consent was obtained from all the participants. The subjects aged more than 18 years were included in the study. The subjects unwilling to participate in the study were excluded. A pre-designed, pre-tested and self-administered proforma was used to collect the data regarding the participants' work-related, health services-related and socio-demographic factors by face-to-face interview. The confidentiality of the participants was guaranteed. The data thus obtained was entered, checked for completeness, compiled and analyzed using the IBM Statistical Package for the Social Services (SPSS) software.

**Procedure:**

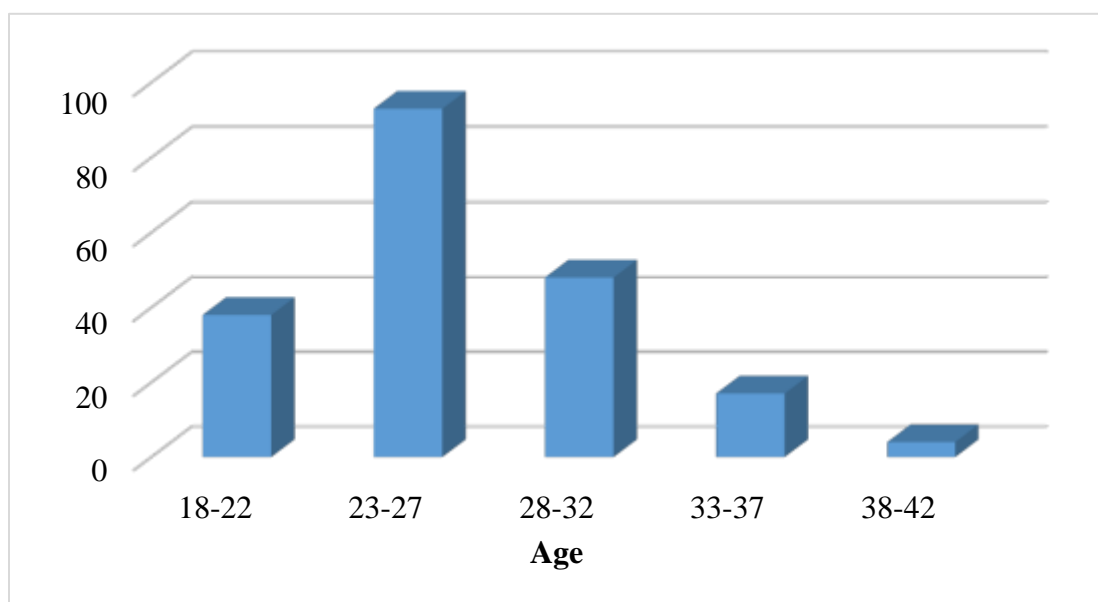
For the collection of data, a structured Questionnaire was used. Questions pertaining to the Education, Occupation status, Family Income, Health Services utilization, Birth Interval and more were asked to the participants. Each student interviewed 20 participants in the Department of Paediatrics OPD of Basaveshwara Medical College and Hospital, Chitradurga. Well-informed Consent was taken and the Mothers who were willing to participate were spoken to in the local language. The focus of the study was on determining the factors leading to the early cessation of Exclusive Breastfeeding by the Mothers. The data which was collected was then entered into Microsoft Excel an organized. The collected data was analyzed using the IBM SPSS (Statistical Package for the Social Sciences) software version 25. Chi-Square test was used to determine the statistical significance of the difference in the period of Exclusive Breastfeeding with the Number of ANC visits and the Education of the Mother. The probability of less than 0.01 was considered statistically significant.

**Statistical Analysis:**

The data obtained will be entered into Microsoft EXCEL Spreadsheet and then it will be transferred and analyzed using Statistical Package for the Social Sciences (SPSS) Version 25. Categorical Variable will be presented as Frequencies and Percentages. Chi-Square Test will be used as the Statistical Test of Significance. Independent Sample t-Test/ANNOVA will be used as the Test of Significance for Quantitative Variable. A 'p value' < 0.01 will be considered as 'Statistically Significant'.

**Results:****Table 01: Frequency of Age of the Mothers**

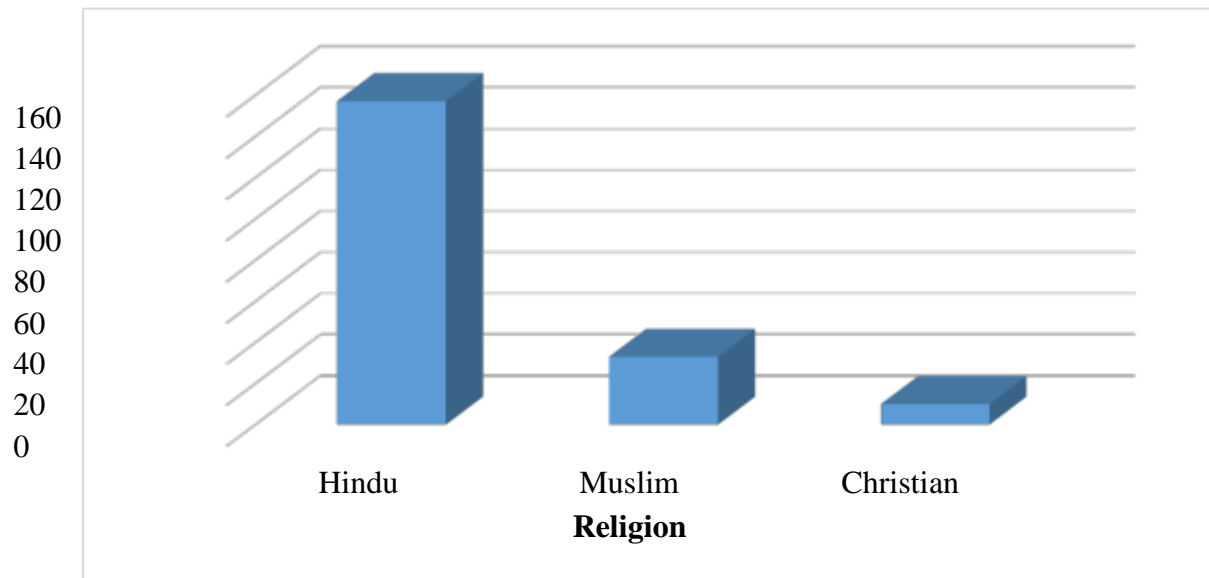
Age	Frequency	Percentage
18-22	38	19.0
23-27	93	46.5
28-32	48	24.0
33-37	17	8.5
38-42	4	2.0
TOTAL	200	100.0

**Figure 01: Frequency of Age of the Mothers**

In our study, 93 Mothers (46.5%) belonged to the 23 to 27 year age group, while only 4 Mothers belonged to the 38 to 42 year age group.

**Table 02: Frequency of Religion of the Mothers**

<b>Religion</b>	<b>Frequency</b>	<b>Percentage</b>
Hindu	157	78.5
Muslim	33	16.5
Christian	10	5.0
TOTAL	200	100.0

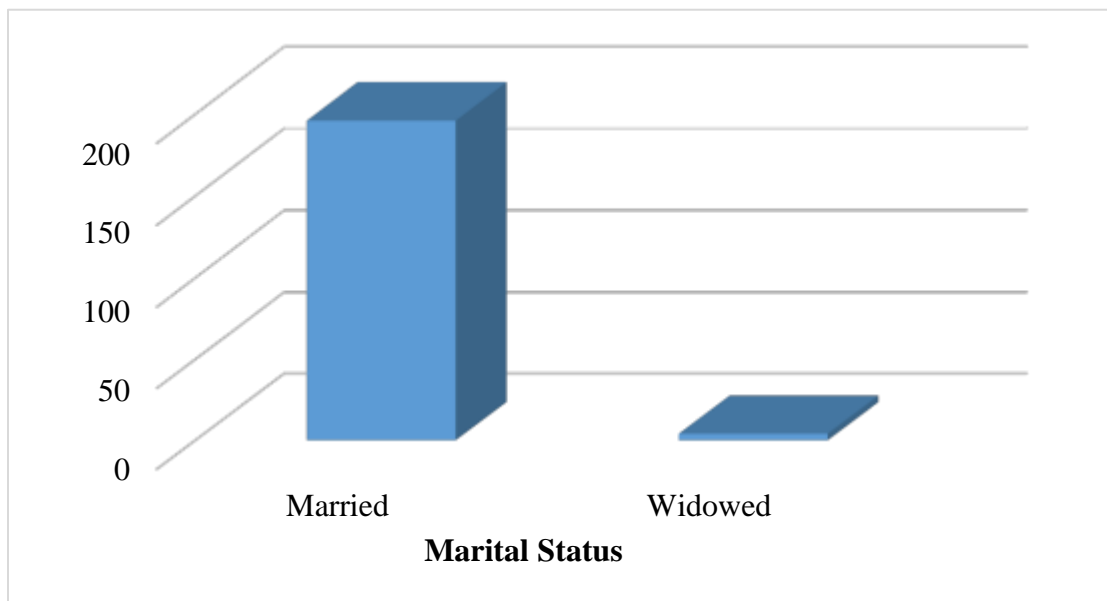
**Figure 02: Frequency of Religion of the Mothers**

In our study, most of the Mothers (78.5%) followed the Hindu religion while only 10 Mothers (5%) followed the Christian religion.



**Table 03: Frequency of Marital Status of the Mothers**

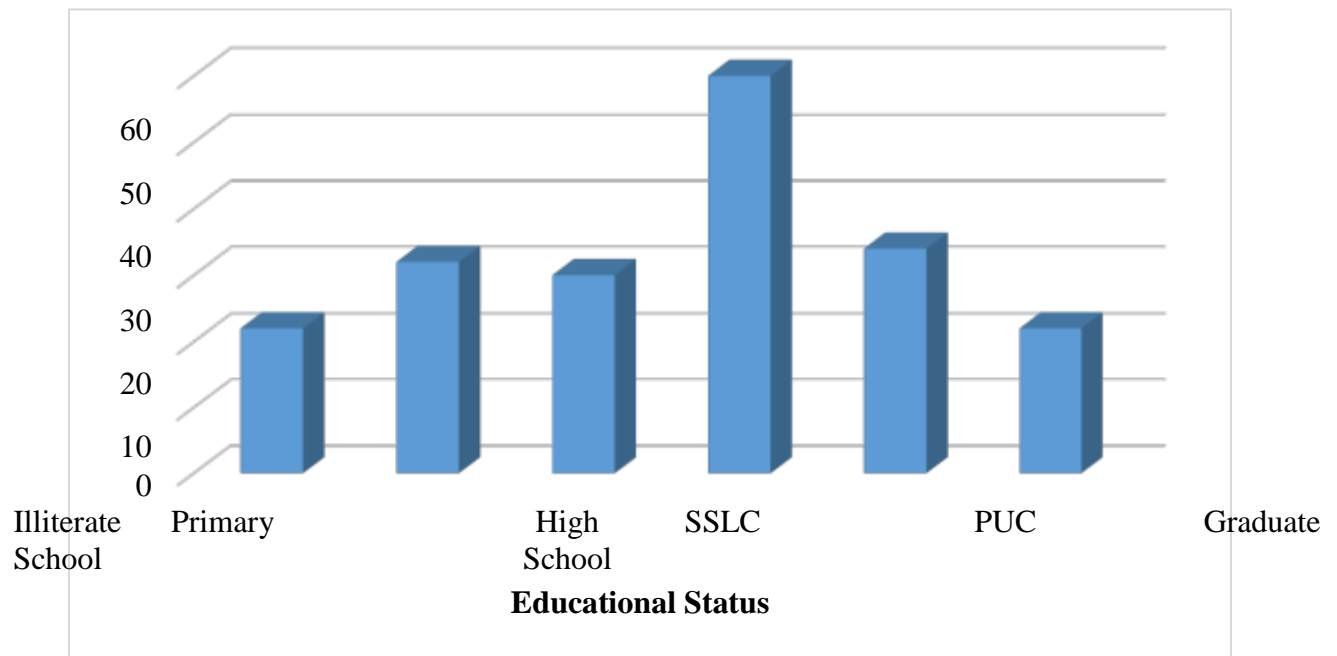
Marital Status	Frequency	Percentage
Married	196	98.0
Widowed	4	2.0
TOTAL	200	100.0

**Figure 03: Frequency of Marital Status of the Mothers**

In our study, 196 of the Mothers (98%) were Married, while 4 Mothers (2%) were Widowed.

**Table 04: Frequency of Educational Status of the Mothers**

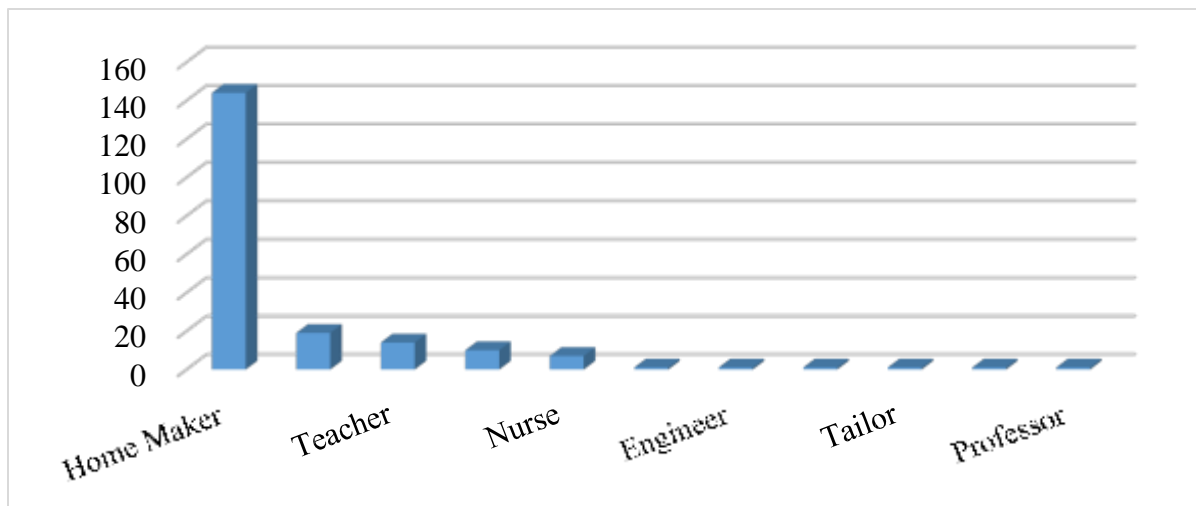
<b>Educational Status</b>	<b>Frequency</b>	<b>Percentage</b>
Illiterate	22	11.0
Primary School	32	16.0
High School	30	15.0
SSLC	60	30.0
PUC	34	17.0
Graduate	22	11.0
<b>TOTAL</b>	<b>200</b>	<b>100.0</b>

**Figure 04: Frequency of Educational Status of the Mothers**

In our study, most of the mothers (30%) were educated till the SSLC level. 22 Mothers (11%) were Illiterate. Another 22 Mothers (11%) were Graduates and Post-Graduates.

**Table 05: Frequency of Occupation of Mother**

Occupation of the mother	Frequency	Percentage
Home Maker	144	72.0
Maid	19	9.5
Teacher	14	7.0
Agricultural Worker	10	5
Nurse	7	3.5
Shopkeeper	1	0.5
Engineer	1	0.5
Entrepreneur	1	0.5
Tailor	1	0.5
Doctor	1	0.5
Professor	1	0.5
TOTAL	200	100.0

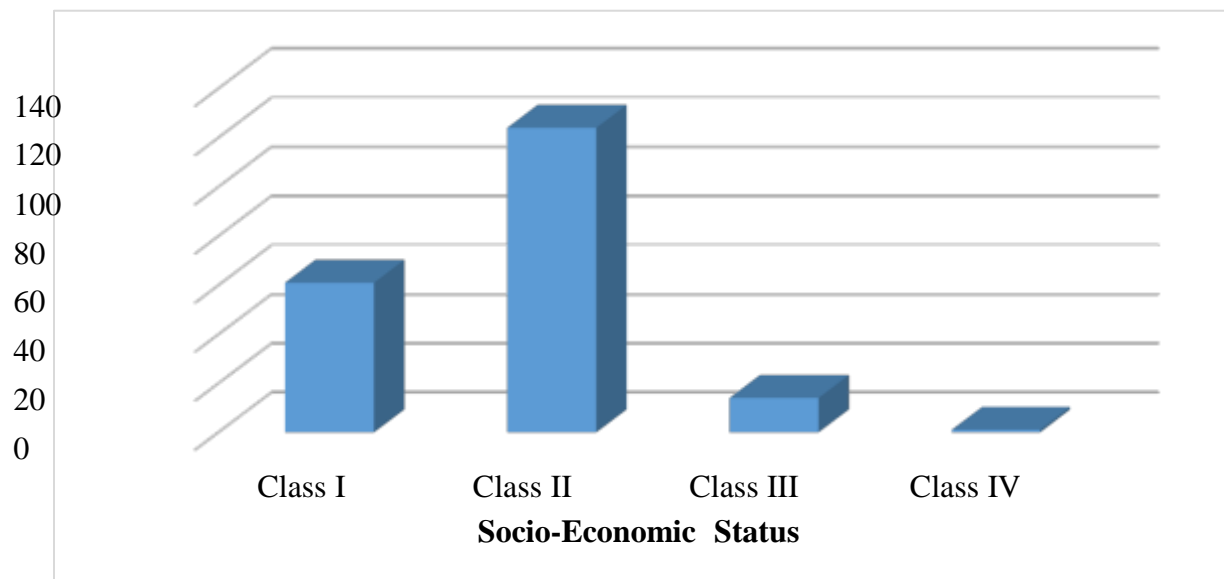
**Figure 05: Frequency of Occupation of Mother**

In our study, the majority of the mothers (72%) were Home Makers. 14 Mothers (7%) were Teachers while 10 Mothers (5%) were Agricultural Workers. 19 Mothers (9.5%) worked as Maids.

**Table 06: Frequency of Socio-Economic Status of the mother according to the Revised B G Prasad Classification for 2021**

Socio-Economic Class	Frequency	Percentage
Class I	61	30.5
Class II	124	62.0
Class III	14	7.0
Class IV	1	0.5
TOTAL	200	100.0

**Figure 06: Frequency of Socio-Economic Status of the Mother according to the Revised B G Prasad Classification for 2021**

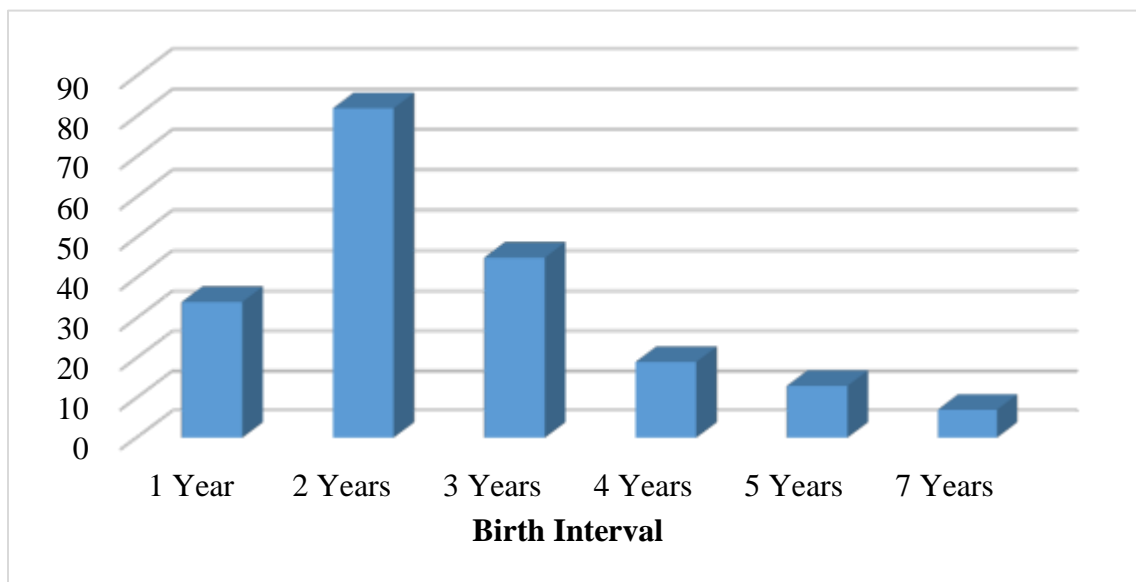


In our study, the majority of the mothers (62%) belonged to Class II of the Revised B G Prasad Classification of Socio-Economic Status for the year 2021. 61 Mothers (30.5%) belonged to Class I while 14 Mothers (7%) belonged to Class III. Only 1 Mother belonged to Class IV.

**Table 07: Frequency of Birth Interval between the Recent-most and the Penultimate Child**

Birth Interval	Frequency	Percentage
1 Year	34	17.0
2 Years	82	41.0
3 Years	45	22.5
4 Years	19	9.5
5 Years	13	6.5
7 Years	7	3.5
TOTAL	200	100.0

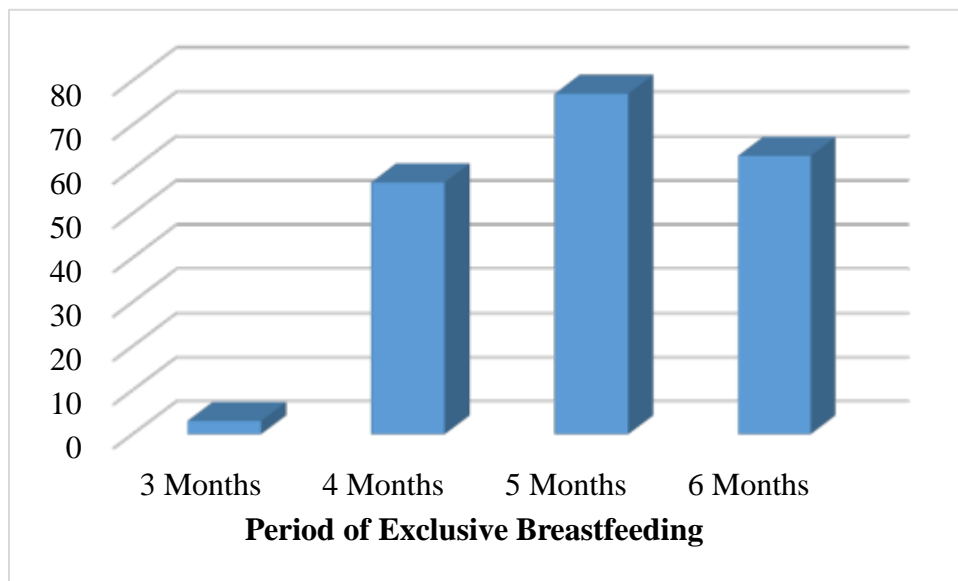
**Figure 07: Frequency of Birth Interval between the Recent-most and the Penultimate Child**



In our study, most of the Mothers (41%) had an interval of at least 2 years between the Recent-most and the Penultimate Child. 45 Mothers (22.5%) had a Birth Interval of at least 3 years, while only 7 Mothers (3.5%) had a Birth Interval of 7 years.

**Table 08: Frequency of Exclusive Breastfeeding by Mothers**

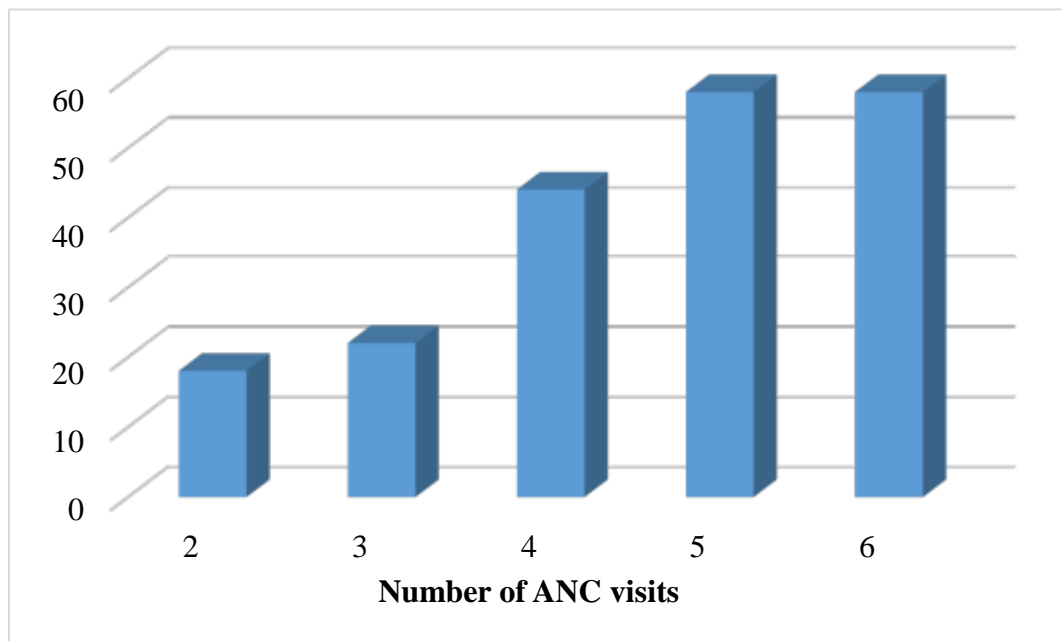
Months of Exclusive Breastfeeding	Frequency	Percentage
3 Months	3	1.5
4 Months	57	28.5
5 Months	77	38.5
6 Months	63	31.5
Total	200	100.0

**Figure 08: Frequency of Exclusive Breastfeeding by Mothers**

In our study, 63 Mothers (31.5%) exercised Exclusive Breastfeeding till the recommended period of at least 6 months. Most of the Mothers (38.5%) exercised Exclusive Breastfeeding for a period of 5 months. 3 Mothers (1.5%) exercised Exclusive Breastfeeding only till a period of 3 months.

**Table 09: Frequency of Number of ANC visits made by the Mothers**

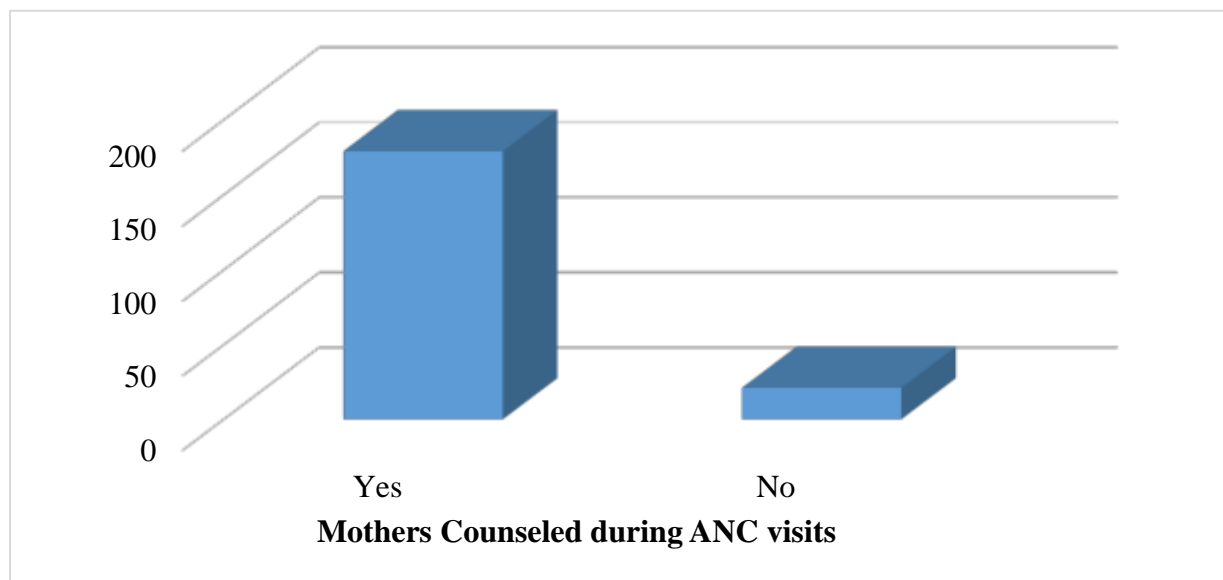
Number of ANC visits	Frequency	Percentage
2	18	9.0
3	22	11.0
4	44	22.0
5	58	29.0
6	58	29.0
TOTAL	200	100.0

**Figure 09: Frequency of Number of ANC visits made by the Mothers**

In our study, 58 Mothers (29%) each had completed at least 5 or 6 Ante-Natal Check-up (ANC) visits. 18 Mothers (9%) had made only 2 ANC visits during the course of their pregnancy.

**Table 10: Frequency of Mothers Counselled on Infant Feeding during ANC visits**

Counseled on Infant Feeding during ANC visits	Frequency	Percentage
Yes	179	89.5
No	21	10.5
TOTAL	200	100.0

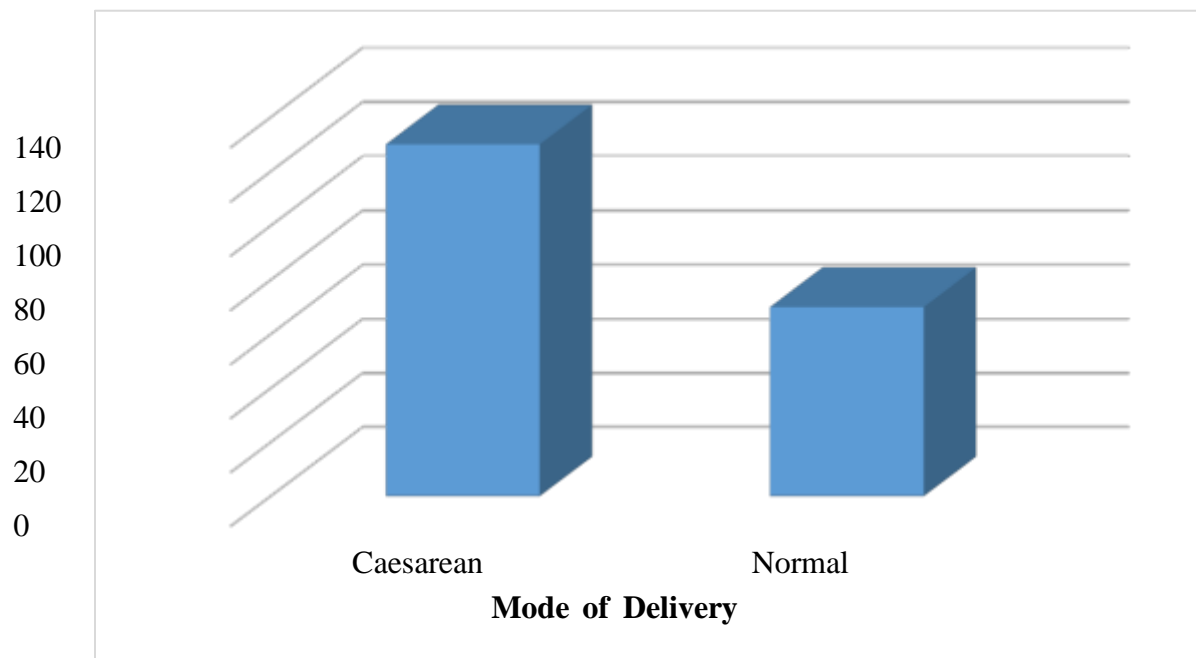
**Figure 10: Frequency of Mothers Counselled on Infant Feeding during ANC visits**

In our study, most of the Mothers (89.5%) had been counseled on Infant Feeding during the ANC visits. 21 Mothers (10.5%) claim to have not been counseled during their ANC visits.



**Table 11: Frequency of Mode of Delivery**

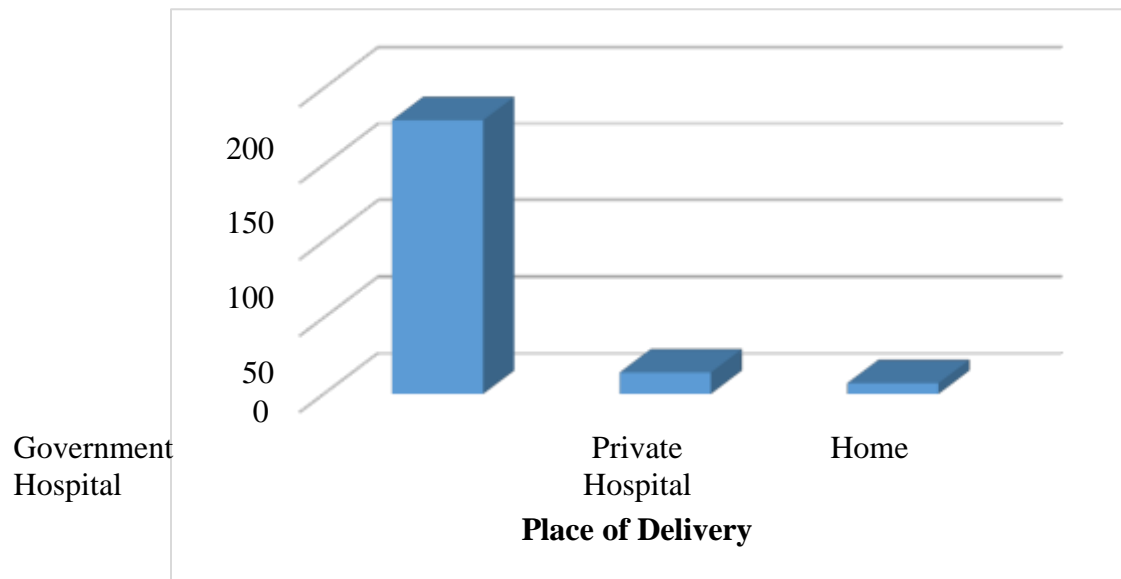
Mode of Delivery	Frequency	Percentage
Caesarean	130	65.0
Normal	70	35.0
TOTAL	200	100.0

**Figure 11: Frequency of Mode of Delivery**

In our study, most of the Mothers (65%) underwent a Caesarean Section to deliver their most recent children, while 70 Mothers (35%) gave birth normally, without any surgical intervention.

**Table 12: Frequency of Place of Delivery**

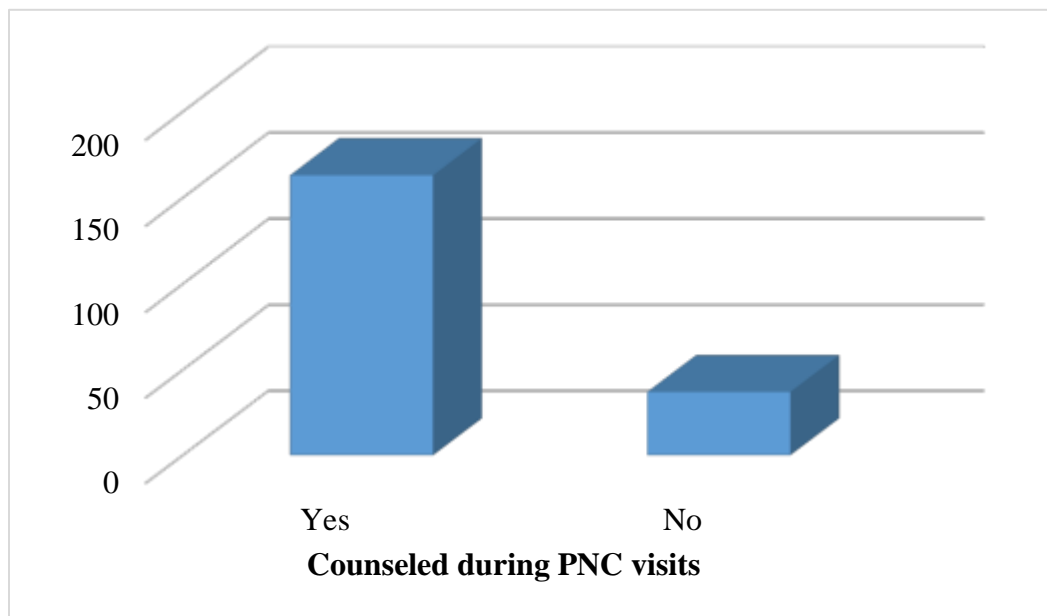
Place of Delivery	Frequency	Percentage
Government Hospital	179	89.5
Private Hospital	14	7.0
Home	7	3.5
TOTAL	200	100.0

**Figure 12: Frequency of Place of Delivery**

In our study, 179 Mothers (89.5%) gave birth to their recent most children in Government Hospitals. 14 Mother (7%) gave birth in a Private Hospital, while 7 Mothers delivered their children at Home.

**Table 13: Frequency of Mothers Counseled during PNC visits**

Counseled during PNC visits	Frequency	Percentage
Yes	163	81.5
No	37	18.5
TOTAL	200	100.0

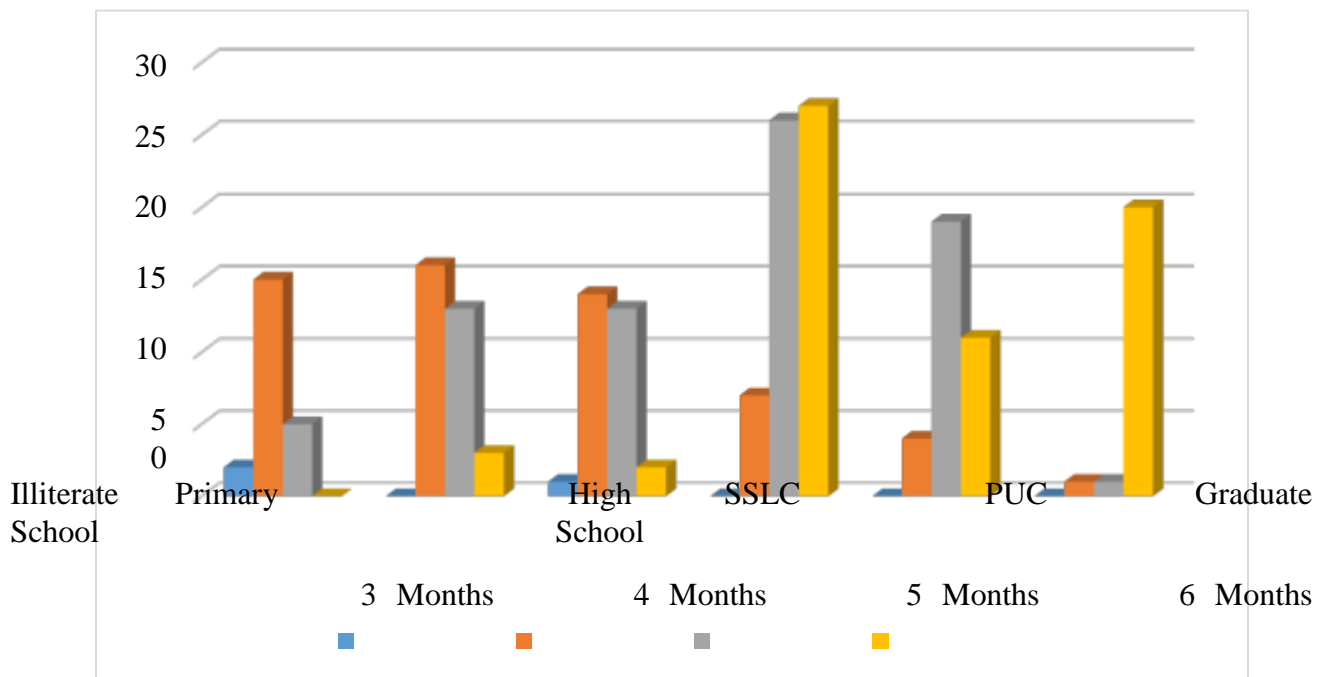
**Figure 13: Frequency of Mothers Counseled during PNC visits**

In our study, the majority of the Mothers (81.5%) were counseled during their PNC visits, while the rest of the Mothers (18.5%) claimed to have not been counseled during their PNC visits.

**Table 14: Estimating the Significance of the Association between the Education of the Mother and the Number of Months of Exclusive Breastfeeding using Pearson’s Chi-Square Test**

		Months of Exclusive Breastfeeding of the Youngest Child					
		-	3 Months	4 Months	5 Months	6 Months	TOTAL
Educational Status of the Mother	Illiterate		2	15	5	0	22
	Primary School		0	16	13	3	32
	High School		1	14	13	2	30
	SSLC		0	7	26	27	60
	PUC		0	4	19	11	34
	Graduate		0	1	1	20	22
	TOTAL		3	57	77	63	200

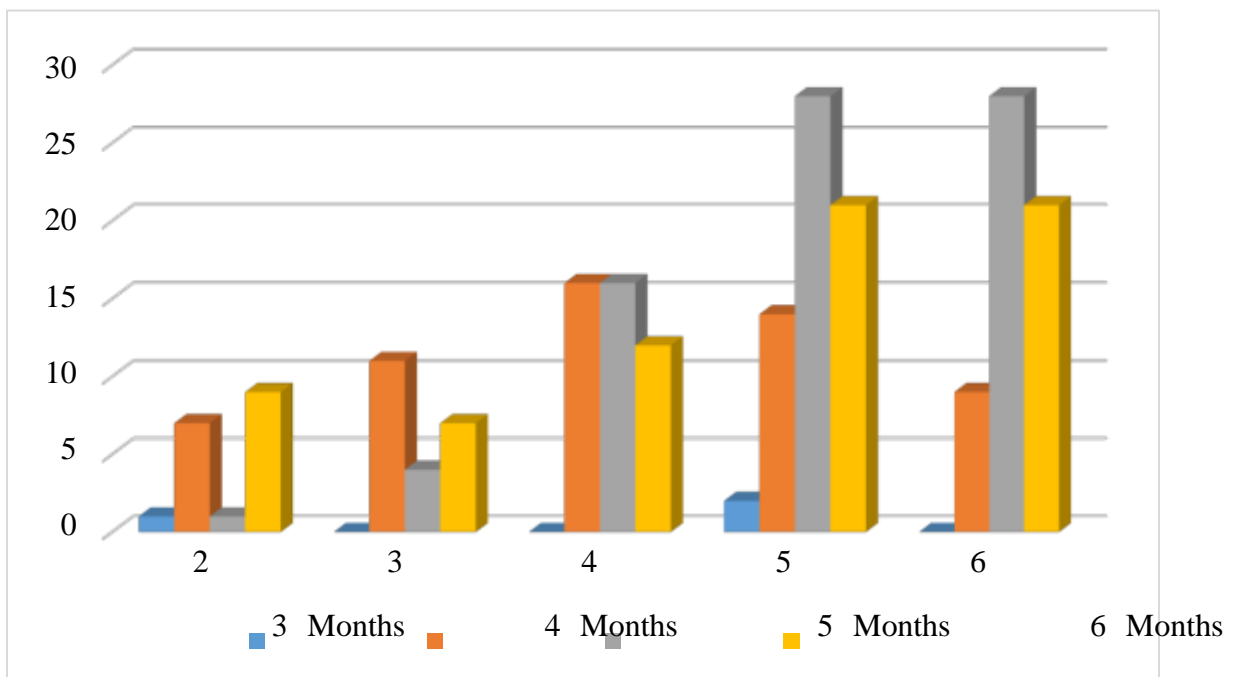
**Figure 14:**



**Table 15: Estimating the Significance of the Association between the Number of ANC visits made and the Number of Months of Exclusive Breastfeeding using Pearson’s Chi-Square Test**

		Months of Exclusive Breastfeeding of the Youngest Child				
Educational Status of the Mother	-	3 Months	4 Months	5 Months	6 Months	TOTAL
	2	1	7	1	9	18
	3	0	11	4	7	22
	4	0	16	16	12	44
	5	2	14	28	21	58
	6	0	9	28	21	58
	TOTAL	3	57	77	63	200

**Figure 15:**



**Discussion:**

This study assessed the prevalence of Exclusive Breastfeeding practices and their associated factors among Mothers at Basaveshwara Medical College and Hospital, Chitradurga. The prevalence of Exclusive Breastfeeding in this study was found to be 31.5% in the 24 hours preceding the survey. In a study conducted in Iran [17], the prevalence was found to be much higher at 82%. Similar trends were seen in studies conducted in Ghana [18] and in Brazil [19] where the prevalence stood at 79% and 72.5% respectively. The prevalence was relatively lower in Goba district [20], Madagascar [21] and Jimma town [22] at 71.3%, 68% and 67.2% respectively, yet higher than that reported in this study. This might be because of the larger sample sizes which might increase the estimation of the Exclusive Breastfeeding. Alternatively, in a study conducted in Canada [23], the prevalence was found to be much lower at an alarming 13.8%. This could be attributed to the fact that a greater number of participants in our study were Homemakers, this would enhance the mother-Infant bond which would in-turn promote a longer period of Breastfeeding [24]. In our study, the lack of significant number of years of formal Education was reported as the major reason for not Exclusively Breastfeeding infants as none of the Illiterate Mothers Exclusively Breastfed for the recommended period of at least 6 months. A study conducted in Indonesia [25] supported this finding. This might be due to the increased likelihood of accessibility of Breastfeeding practice-related information by Educated Mothers [26]. Also in our study, those mothers who paid more number of Ante-Natal Checkup visits were found to be more likely to Exclusively Breastfeed longer, as 71.4% of the Mothers who made either 4, 5 or 6 ANC visits Exclusively Breastfed for a period of at least 6 months. This finding is consistent with that reported from studies conducted in Bale Goba and in Bahir Dar. This might be attributed to the fact that those mothers who comprehend the extensive benefits of Exclusively Breastfeeding infants are more motivated to do the same for the adequate period of time. In our study, those mothers who hailed from higher Socio-Economic

Statuses were found to be more likely to Exclusively Breastfeed their infants for a longer duration as 92.1% of the mothers belonging to Class I and Class II of the Revised B G Prasad Classification for 2021 Exclusively Breastfed for the WHO recommended period of 6 months. This finding is consistent with a nation-wide household survey that was conducted in the country of China. This may be because, Mothers belonging to higher Socio-Economic Statuses tend to have lower rates of early cessation of Schooling. It could also be due to the fact that Mothers hailing from higher Socio-Economic backgrounds tend to have better access to healthcare facilities. This is likely to increase their probability of being appropriately counseled post-delivery and in subsequent consultations on the practice of continued Exclusive Breastfeeding for the recommended period of time.

### **Conclusion:**

The scare of high Infant Mortality rate in India is yet to be tackled and the first and most effective way to overcome this is by ensuring higher frequency of Exclusive Breastfeeding for the WHO recommended period of 6 months. Our efforts to establish the probable factors that favor early cessation of Exclusive Breastfeeding have borne the conclusion that the Education of the mother and the Number of ANC visits made bear a significant Positive relationship with the number of months of Exclusive Breastfeeding.

This is an essential finding in the understanding of the factors or reasons for insufficient breastfeeding practices and could prove to be the basis of health legislature targeting lower Infant Mortality and Under-5 mortality rates.

**References:**

1. WHO. Exclusive breastfeeding for optimal growth, development and health of infants. e-Library of Evidence for Nutrition Actions (eLENA). 2019.
2. WHO. Exclusive breastfeeding for six months best for babies everywhere. Statement. 2011.
3. Tewabe, T., Mandesh, A., Gualu, T. et al. Exclusive breastfeeding practice and associated factors among mothers in Motta town, East Gojjam zone, Amhara Regional State, Ethiopia, 2015: a cross-sectional study. *Int Breastfeed J* 12, 12 (2016)
4. UNICEF. Tracking progress on Child and Maternal Nutrition: A Survival and Development Priority. New York: UNICEF; 2009
5. Federal Ministry of Health, Family Health Department of Ethiopia. National Strategy on Infant and Young Child Feeding. Addis Ababa: Federal Ministry of Health, Family Health Department of Ethiopia; 2004
6. Indian Academy of Pediatrics. Infant and Young Child Feeding Guidelines. *Indian Pediatr.* 2010 ;47(12):995–1004
7. Ministry of Human Resource Development Department of Women and Child Development (Food and Nutrition Board) Government of India. National Guide Line of Infant and Young Child Feeding. India. 2004
8. UNICEF. A Successful Start in Life: Improving Breastfeeding in West and Central Africa. New York: UNICEF; 2010
9. Marques ES, Cotta RM, Priore SE. Mitos e crenças sobre o aleitamento materno [Myths and beliefs surrounding breastfeeding]. *Cien Saude Colet.* 2011 May;16(5):2461-8. Portuguese. doi: 10.1590/s1413-81232011000500015. PMID: 21655719.



10. Donovan P. Dangerous myths. *Hygie*. 1992;11(2):7-8. PMID: 1618509.
11. Marques ES, Cotta RM, Priore SE. Mitos e crenças sobre o aleitamento materno [Myths and beliefs surrounding breastfeeding]. *Cien Saude Colet*. 2011 May;16(5):2461-8. Portuguese. doi: 10.1590/s1413-81232011000500015. PMID: 21655719.
12. Ministry of Health and Family Welfare Government of India. National Family Health Survey – 5 2019-2021. India Fact Sheet. India. 2021
13. Mathur NB, Dhingra D. Breastfeeding. *Indian J Pediatr*. 2014 Feb;81(2):143-9. doi: 10.1007/s12098-013-1153-1. Epub 2013 Aug 1. PMID: 23904066.
14. WHO. Exclusive Breastfeeding for Six Months Best for Babies. Geneva: WHO; 2011
15. WHO. Mortality and Burden of Disease Attributable to Selected Major Risks. Geneva: WHO; 2009
16. Park's Textbook of Preventive and Social Medicine (26th Edition) by K. Park
17. A. Koosha, R. Hashemifesharaki, and N. Mousavinasab, "Breast-feeding patterns and factors determining exclusive breast-feeding," *Singapore Medical Journal*, vol. 49, no. 12, pp. 1002–1006, 2008.
18. J. Victoria, B. Agnès, W. Joan et al., "Improving breastfeeding practices on a broad scale at the community level: success stories from Africa and Latin America," *Journal of Human Lactation*, vol. 21, no. 3, pp. 345–354, 2005.
19. M. B. R. do Nascimento, M. A. M. Reis, S. C. Franco, H. Issler, A. A. Ferraro, and S. J. F. E. Grisi, "Exclusive breastfeeding in southern Brazil: prevalence and associated factors," *Breastfeeding Medicine*, vol. 5, no. 2, pp. 79–85, 2010.

20. T. Setegn, T. Belachew, M. Gerbaba, K. Deribe, A. Deribew, and S. Biadgilign, "Factors associated with exclusive breastfeeding practices among mothers in Goba district, south east Ethiopia: a cross-sectional study," *International Breastfeeding Journal*, vol. 7, article 17, pp. 1–8, 2012.
21. J. Victoria, B. Agnès, W. Joan et al., "Improving breastfeeding practices on a broad scale at the community level: success stories from Africa and Latin America," *Journal of Human Lactation*, vol. 21, no. 3, pp. 345–354, 2005.
22. W. Seifu, G. Assefa, and G. Egata, "Prevalence of exclusive breast feeding and its predictors among infants aged six months in Jimma Town, Southwest Ethiopia, 2013," *Journal of Pediatrics & Neonatal Care*, vol. 1, no. 3, pp. 4–6, 2014.
23. B. Al-Sahab, A. Lanes, M. Feldman, and H. Tamim, "Prevalence and predictors of 6-month exclusive. Breastfeeding among Canadian women: a national survey," *BMC Pediatrics*, vol. 10, article 20, 2010.
24. Getachew Arage, Haileyesus Gedamu, "Exclusive Breastfeeding Practice and Its Associated Factors among Mothers of Infants Less Than Six Months of Age in Debre Tabor Town, Northwest Ethiopia: A Cross-Sectional Study", *Advances in Public Health*, vol. 2016, Article ID 3426249, 7 pages, 2016.
25. Laksono AD, Wulandari RD, Ibad M, Kusriani I. The effects of mother's education on achieving exclusive breastfeeding in Indonesia. *BMC Public Health*. 2021 Jan 6;21(1):14. doi: 10.1186/s12889-020-10018-7. PMID: 33402139; PMCID: PMC7786474.

26. Tariku A, Alemu K, Gizaw Z, Muchie KF, Derso T, Abebe SM, Yitayal M, Fekadu A, Ayele TA, Alemayehu GA, Tsegaye AT, Shimeka A, Bikis GA. Mothers' education and ANC visit improved exclusive breastfeeding in Dabat Health and Demographic Surveillance System Site, northwest Ethiopia. *PLoS One*. 2017 Jun 28;12(6):e0179056. doi: 10.1371/journal.pone.0179056. PMID: 28658257; PMCID: PMC5489161.
27. A. M. Seid, M. E. Yesuf, and D. N. Koye, "Prevalence of Exclusive Breastfeeding Practices and associated factors among mothers in Bahir Dar city, Northwest Ethiopia: a community based cross-sectional study," *International Breastfeeding Journal*, vol. 8, article 14, 2013.
28. Zhang Z, Zhu Y, Zhang L, Wan H. What factors influence exclusive breastfeeding based on the theory of planned behaviour. *Midwifery*. 2018 Jul;62:177-182. doi: 10.1016/j.midw.2018.04.006. Epub 2018 Apr 10. PMID: 29684797.
29. Chen C, Cheng G, Pan J. Socioeconomic status and breastfeeding in China: an analysis of data from a longitudinal nationwide household survey. *BMC Pediatr*. 2019 May 27;19(1):167. doi: 10.1186/s12887-019-1551-2. PMID: 31133000; PMCID: PMC6535851.
30. Sciancalepore, Nicholas, "Relationship between socioeconomic status and high school dropout retention plans" (2017). *Theses and Dissertations*. 2421.
31. Caballo, Brian; Dey, Suchona; Prabhu, Pranav; Seal, Bhata; Chu, Peter; Kim, Loan. *The Effects of Socioeconomic Status on the Quality and Accessibility of Healthcare Services. Across the Spectrum of Socioeconomics Volume 1 Issue 4* DOI: 10.5281/zenodo.4740684 International Socioeconomics Laboratory, University of California Los Angeles and Pepperdine University. Page 12