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"A STUDY OF SOCIO-DEMOGRAPHIC CHARACTERISTICS, KNOWLEDGE, ATTITUDE AND PRACTICE OF BREASTFEEDING IN LACTATING MOTHERS OF CHILDREN AGED 0-2 YRS IN AND AROUND SURATHKAL, KARNATAKA."

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INTRODUCTION

Breastfeeding provides the ideal start to life, with complete natural nutrition that includes vital nutrients, antibodies, enzymes, and hormones, breastfeeding offers the best start in life. Antibody-rich colostrum shields infants from infections and avoids renal overload. Promoting breastfeeding is essential for enhancing children's health, immunity, and general well-being, particularly in developing nations.[1] One of the best options for infant feeding worldwide is breastfeeding. Its bioactive ingredients promote growth, increase IQ, improve wellbeing, increase school attendance, and advance children's general development.[2, 3] Breastfeeding promotes economic growth and improves nutrition, which benefits families and the country as a whole.[3.]

Breastfeeding protects infants from infections like respiratory and ear infections, diarrhea, Urinary tract infections, and wheezing.[4] Long-term, it lowers the risk of chronic diseases such as Childhood obesity, hypertension, Atopic disease[5] and Diabetes mellitus[6]. Beyond babies, mothers also benefit—making breastfeeding a powerful shield for lifelong health for both mother and child. It is a low cost intervention which offers short and long term benefits to lactating mothers by reducing the risk of following , Postpartum depression, Hypertension, Diabetes, Cardiovascular diseases, Breast cancer, Ovarian cancer, Endometriosis and endometrial cancer.[7] Breastfeeding promotes faster uterine recovery, reduces postpartum bleeding, helps mothers lose pregnancy weight, and delays the return of menstruation through lactational amenorrhea. It also offers a safe, natural method of birth control.[8,9]

Several factors influence a mother's decision to breastfeed, including cultural beliefs, marital status, maternal age, education level, and employment. Socio-environmental and personal factors also play a key role in shaping infant feeding practices.[10] Support from family and healthcare systems, especially fathers, has been shown to positively impact breastfeeding decisions.[11] Therefore, involving fathers in breastfeeding education and discussions is essential. Understanding what motivates a woman to choose breastfeeding is crucial for improving rates. Interestingly, studies suggest that racial, ethnic, and socioeconomic differences do not significantly affect breastfeeding initiation or duration, highlighting the importance of targeted, inclusive support across all backgrounds.

Researchers found a number of factors that seem to affect a mother's decision to breastfeed her child. Infant feeding practices are influenced by personal, social, and environmental factors. [10.] It has also been discovered that fathers have an impact on how infants are fed. Therefore, it is wise to involve fathers in conversations and educational initiatives related to breastfeeding[11.] Understanding the factors that influence a woman's decision to use breast milk as her infant's primary source of nutrition is crucial to increasing breastfeeding rates.[13,14] A few of these factors include culture, marital status, age, education, employment, and other systems' support. Research has indicated that breastfeeding duration and rates are unaffected by socioeconomic status, race, or ethnicity.[15.]

To enhance breastfeeding practices, it is crucial to identify socio-demographic predictors among specific subgroups. This helps design targeted intervention programs to improve breastfeeding rates. The present study aims to assess which socio-demographic factors, knowledge, and attitudes influence breastfeeding initiation and practices among lactating mothers of children aged 0–2 years in and around Surathkal, Karnataka. Currently, no such studies exist in this region. A Knowledge, Attitude, and Practice (KAP) approach will be used. Findings will provide valuable insights for policymakers and help in developing effective, evidence-based interventions to support and promote optimal breastfeeding practices.

METHODOLOGY

A descriptive cross-sectional study, both community- and hospital-based, was conducted following approval from the Institutional Ethics Committee and after obtaining informed consent from participating mothers. Data were collected using a pre-tested, semi-structured questionnaire that included sections on socio-demographic details, as well as the mother's knowledge, attitude, and practices related to breastfeeding. A purposive sampling technique was employed until the target sample size of 400 mothers was achieved, ensuring relevance and adequacy for the study objectives. Data were collected from eligible mothers in postnatal and pediatric wards, immunization clinics, and outpatient services at Srinivas Institute of Medical Sciences and nearby PHCs. Weekly or monthly visits were conducted to these PHCs. Mothers were informed about the study, and those who consented were included. The child's age was recorded in days (if <1 month), or in completed months or years. Interviews were conducted in a private cubicle to ensure confidentiality. After data collection, mothers were educated on the importance and benefits of breastfeeding, reinforcing awareness and promoting informed breastfeeding practices.

If any myths or misconceptions about breastfeeding were observed, mothers were provided with correct information, educated on proper breastfeeding practices, and counselled accordingly. All additional queries related to breastfeeding were addressed. In cases where the child had health issues, a detailed history was taken from the mother, followed by clinical examination, and appropriate medications were prescribed.

Inclusion Criteria:

- Lactating mothers of children aged 0 to 2 years residing in and around Surathkal
- Mothers who provide informed consent to participate in the study

Exclusion Criteria:

- Mothers with children older than 2 years
- Mothers whose children have medical conditions contraindicating breastfeeding (e.g., galactosemia)
- Mothers whose children were deferred from breastfeeding due to medical or surgical reasons
- Mothers who do not provide consent for participation
- Children not accompanied by their mothers

The collected data were analysed using SPSS statistical software (version 23). Descriptive statistics such as mean, percentage, and frequency were computed for various parameters. To assess the association between breastfeeding practices and different variables, the Pearson Chi-square test was applied. Degree of freedom (d.f.) and p-values were calculated. A p-value of <0.001 was considered very highly significant, $p<0.05$ as statistically significant, and $p>0.05$ as not significant.

RESULTS:

Among the children studied, 19.25% were younger than 1 month, 25.75% were aged between 1–6 months, 22% were between 6.5–12 months, and 33% were older than 12 months.(Figure 1) The gender distribution showed a higher proportion of females (57%) compared to males (43%). (Figure 2) Regarding birth weight, 2.25% of babies weighed less than 1.5 kg, 7.75% between 1.51–2 kg, 21.5% between 2.1–2.5 kg, and a majority—68.5%—weighed more than 2.5 kg at birth. The mean birth weight was 2.78 kg.

Among mothers, 8.25% were aged ≤20 years, 51.75% were between 21–25 years, 28.75% were between 26–30 years, and 11.25% were above 31 years. The average maternal age was 24.9 years.

Among the mothers surveyed, 1.8% had no formal education, while 7.5% had completed primary school and 9.5% had studied up to middle school. A notable proportion had education up to high school (30.3%) and intermediate level (39.3%). Additionally, 8.5% were graduates and 3.3% held postgraduate degrees. These findings highlight that the majority of mothers had received education up to the high school and intermediate levels.(Table-1)

Regarding employment, 92% of mothers were homemakers, while only 8% were employed. Among the 32 employed mothers, 8 were able to take breaks during work hours to breastfeed, whereas 24 could not, mainly due to the distance of their workplace from home.

In terms of parity, 36.3% of mothers were primiparous and 63.7% were multiparous. Most mothers resided in rural areas (57%), followed by semi-urban (32.5%) and urban areas (10.5%).

Religion-wise, 62% of the participants were Hindus, 30.5% Muslims, 6.5% Christians, and 1% belonged to other religions.

The data shows that the majority of mothers (39.8%) belonged to socioeconomic status (SES) Class III, followed by 28.7% in Class II, 14.8% in Class I, 13.3% in Class IV, and 3.5% in Class V. (Figure -3)

78.5% of them had 1–2 children, while 21.5% had more than two. Antenatal care was regularly attended by 91% of mothers, while 9% did not receive regular checkups.

Normal vaginal delivery was reported by 66.8% of mothers, whereas 33.3% had caesarean sections. The vast majority (97%) delivered in hospitals, while only 3% had home deliveries.

Regarding delivery complications, 93.25% of mothers had none. Others reported antepartum hemorrhage (1.5%), eclampsia (0.5%), gestational diabetes mellitus (3.0%), pregnancy-induced hypertension (1.0%), and postpartum hemorrhage (0.75%).

Among newborns, 75.75% had no complications. However, 14.5% experienced jaundice, 3.5% were low birth weight, 2.5% had respiratory distress syndrome (RDS), 1.5% were preterm, 1.25% had sepsis, and 1% experienced birth asphyxia.

Most mothers demonstrated good knowledge about breastfeeding. About 91.8% recognized that breast milk is the best nutrition for babies, and 88.5% knew that burping is necessary after each feed. Additionally, 82.5% were aware that breastfeeding should continue alongside complementary

feeding. Around 71.8% understood its role in mother-child bonding, while 76.8% knew the importance of eye contact, touch, and communication during feeding. Furthermore, 80.3% acknowledged that breastfeeding benefits both mother and child. Knowledge was low regarding colostrum (12%), early initiation (32.5%), exclusive breastfeeding till 6 months (41.3%), and expressed milk (24%). Only 23.5% knew formula-fed babies are more disease-prone. Key information sources were medical personnel (47%) and mothers (38%).(Table-3)
The main reason for stopping breastfeeds is that mother felt that breast milk was inadequate in 12.5% of mothers and 10% of mothers felt decreased breast milk production.
Most of the mothers (78.5%) had not started bottle feeding yet. About 12% of mothers gave bottle feeding after complete emptying of breast. 6.5% of mothers gave bottle feeding in between the breast feeds. Only 3% of the mothers gave bottle feeding before giving breast feeds.
Most mothers (44%) had not started complementary feeds. About 42.75% of mothers started complementary feeds at or after 6 months of life. 13.25% of mothers started complementary feeds before 6 months of age. 51% of the mothers continued breast feeding even after introduction of complementary feeds. Most of the mothers (91.75%) still continued their babies on breastfeeding, about 2.75% of mothers breastfed their children up to one year of age. 1.5% of mothers breastfed their child till two years of age.

It was observed that most of the mothers initiated breastfeeding within one hour of delivery. By applying Chi-Square test, association between type of delivery with how soon the baby was breastfed after delivery was found to be very highly significant ($p<0.001$). About 10.5% of babies born out of caesarean section and 70.8% babies born out of vaginal delivery were breast fed within one hour of birth.
There was no significant association between parity of mothers with how soon the baby was breastfed after delivery ($p>0.05$). About 51.4% of multipara and 49.7% of primipara mothers breastfeed their child within one hour of delivery.
There was no significant association between education of mothers with breastfeeding frequency during night time. Chi - square $p=0.092$(which is more than 0.05).
The association between Socio economic status with age at which complementary feeds or weaning started was found to be very highly significant. Chi - square $p=0.000$(which is less than 0.001).
There was no significant association between sex of child and longevity of being breastfed.

DISCUSSION

In the present study, most mothers (51.8%) were aged 21–25 years, followed by 28.8% aged 26–30 years. This aligns with findings by Sandhya Jagadale et al., [16] where 40% of mothers were aged 21–23 years, indicating a similar maternal age distribution across studies.
In our study, most mothers were educated, with 39.3% completing intermediate and 11.8% holding graduate or postgraduate degrees. Compared to studies by Madhu Gupta et al [17](22% illiterate) and Vijayalakshmi et al[18] (49.2% illiterate or primary educated), maternal education status was significantly better in our study.
In the present study, 36.3% of mothers were primiparous, comparable to findings by Madhu Gupta et al [17](32%) and Sultania et al.[19](25%), indicating a similar distribution of parity across studies.
In the present study, most mothers had good knowledge and a positive attitude toward breastfeeding. While 88.5% knew about burping and 80.3% recognized its benefits, awareness about expressed milk and colostrum was low. Compared to Sandhya Jagadale et al.,[16] our study showed better knowledge and attitude among mothers.
In the present study, 32.5% of mothers knew breastfeeding should begin within one hour of birth, and 91.8% recognized breast milk as the best for babies. These findings closely align with Sunil Kumar et al.[20] rural Uttarakhand study, showing similar awareness levels and highlighting consistent knowledge across regions.

In the present study, 41.3% of mothers were aware that exclusive breastfeeding should be continued for six months, which is notably higher than the 15.7% reported by Singh et al.,[21]indicating better maternal knowledge on EBF in our study.

In our study, early breastfeeding within one hour was seen in 70.8% of vaginal births but only 10.5% of cesarean deliveries, showing a significant link between delivery type and initiation time ($p<0.05$). While studies conducted by Shwetal et al[22], Kumar D et al [23,] Arun Gupta et al [24] , Benakappa D G et al[25], report varied initiation rates—from 8% to 73%—delayed breastfeeding remains a widespread concern.

According to a survey by Girish et al.,[26] 30.64% of mothers were aware of expressed breast milk (EBM), mainly used when separation from the baby was unavoidable. In our study, 24% of mothers knew about EBM, and 22 of the 32 working mothers used it. This highlights the need for proper counseling on breast milk expression techniques—manual or pump-based—especially for mothers planning to return to work, to ensure continued breastfeeding and optimal infant nutrition.

Regarding pre-lacteal feeds, 17.8% of mothers in our study gave them, while 82.3% did not. This marks significant progress compared to past studies—Banapurmath et al.[27] (1996) reported 100% pre-lacteal feeding, Kumar D et al.[23] (2006) 40%. The decline reflects improved maternal education, health awareness, and increased institutional deliveries, where exclusive breastfeeding is actively promoted.

In the study by Sulthania et al.,[19] the most common reason for stopping breastfeeding was the perception of insufficient breast milk (41%), followed by the introduction of bottle milk (30%) and top feeds (15%). Less common reasons included maternal employment, breast problems, embarrassment, and subsequent pregnancy.

In our study, 63.5% of mothers continued breastfeeding. Among those who stopped, the main reasons were the perception of inadequate milk (12.5%) and decreased milk production (10%). Other less common factors included bottle feeding (3.5%), infant refusal (2.3%), maternal health issues (0.5%), and working status or breast problems (1.8% each). These findings highlight the need for better breastfeeding support and counselling to address maternal concerns and sustain breastfeeding.

In the study by Sulthania et al.,[19] 51% of mothers introduced complementary feeds after six months, while 24% introduced them between 3–6 months, 13% between 1–3 months, and 12% before 1 month. Similarly, Benakappa et al[25]. reported that 19.8% of rural mothers started supplementary feeds by three months. Banapurmath et al.[27] found timely introduction (between 6–10 months) in 57.3% of cases.

In our study, 13.25% of mothers introduced complementary feeding before six months, while 42.75% started at or after six months. Notably, 44% had not yet introduced any complementary feeds. Breast milk alone is sufficient for the first six months of life, after which complementary feeding must begin—alongside continued breastfeeding—to ensure proper growth and development. Most mothers in our study preferred homemade complementary foods such as pulses, cereals, legumes, millets, mashed vegetables and fruits, and ganji. A few opted for commercial preparations like Cerelac, Nestum, and Farex.

In the present study, 88.5% of mothers knew burping should follow each feed, closely matching Vijayalakshmi et al.'s[18] finding of 91.8%. However, Benakappa et al.[25] reported much lower burping practices (44.53%), despite 92% practicing proper posturing—highlighting a gap between knowledge and practice.

In the present study, 96.5% of newborns received colostrum, though only 12% of mothers knew what it was. This marks a significant improvement compared to earlier studies conducted by Kumar D et al,,[23] Benakappa et al,[25] and Banapurmath et al,[27] where colostrum rejection rates ranged from 15.9% to 58.4%. The rise is likely due to increased institutional deliveries, better maternal education, and effective counselling.

In our study, the primary source of breastfeeding information was medical personnel (47%), followed by mothers' own mothers (38%) and the internet. Less common sources included friends, TV, magazines, and school. In comparison, Sulthania et al.[19] found family and friends (61%) and prior

experience (57%) as key sources, with health personnel at 35% and media/literature at 39%. This highlights the growing influence of healthcare professionals and digital media in shaping breastfeeding knowledge today.

In our study, 21.5% of mothers initiated bottle feeding—6.5% between breastfeeds, 12% after emptying the breast, and 3% before breastfeeding—while 78.5% had not started bottle feeding. Compared to Sulthania et al.[19] (33%) and Banapurmath et al.[27] (49.4%), bottle feeding was lower. Girish H O et al. reported 78.2% of mothers opposed bottle feeding. Significant correlations were found between mode of delivery and breastfeeding initiation, and between socioeconomic status and age of introducing complementary feeds. However, no significant association was observed with maternal parity, education, child's sex, or maternal employment in relation to breastfeeding frequency or duration.

CONCLUSION

Culture, religion, parity, and the type of delivery all have an impact on early breastfeeding. Breastfeeding practices are greatly enhanced by antenatal education, maternal guidance, and the learning environment. High rates of morbidity and mortality result from undernutrition during infancy, which also limits a child's growth and development and has an effect on families and society as a whole. Support that is sensitive to cultural differences and focused awareness are crucial for overcoming negative attitudes. Breastfeeding rates can be increased by removing obstacles through community involvement, education, and positive reinforcement. Giving moms the right information at the right time guarantees healthier starts for kids and builds a better, healthier future for everyone. Let's take good care of the first step!

REFERENCES

1. Hoddinott P, Tappin D, Wright C. Breast feeding. Bmj. 2008 Apr 17;336(7649):881-887. https://www.bmj.com/content/336/7649/881.full
2. Mazzocchi A, Giannì ML, Morniroli D, Leone L, Roggero P, Agostoni C, De Cosmi V, Mosca F. Hormones in breast milk and effect on infants' growth: A systematic review. Nutrients. 2019 Aug;11(8):1845. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6724322/
3. World Health Organization and UNICEF, Infant and young child feeding. Weblog. [Online] Available from: https://www.who.int/news-room/fact-sheets/detail/infant-and-young-child-feeding [Accessed 17 October 2021].
4. Hanson LA, Korotkova M , Haversen L, et al (2002) Breastfeeding , a complex support system for the offspring. Pediatrics International 44, 347-352[pubmed] https://pubmed.ncbi.nlm.nih .gov/12139555/
5. Saarinen UM, Kesari M. Breastfeeding as prophylaxis against atopic disease: prospective follow-up study until 17 years old. The Lancet. 1995 Oct 21;346(8982):1065-1069. https://pubmed.ncbi.nlm.nih.gov/7564787/
6. Davis MK. Breastfeeding and chronic disease in childhood and adolescence. Pediatric Clinics of North America. 2001 Feb 1;48(1):125-q141. https://www.sciencedirect.com/science/article /abs/pii/S0031395505702893?via%3Dihub
7. Sattari M, Serwint JR, Levine DM. Maternal implications of breastfeeding: a review for the internist. The American journal of medicine. 2019 Aug 1;132(8):912-920. https://pubmed.ncbi.nlm.nih.gov/30853481/
8. Del Ciampo LA, Del Ciampo IR. Breastfeeding and the Benefits of Lactation for Women's Health. Revista Brasileira de Ginecologia e Obstetrícia/RBGO Gynecology and Obstetrics. 2018 Jun;40(06):354-359. https://www.scielo.br/j/rbgo/a/5MnxQ6xkQfsJfwhNZ5JccTf/?lang=en& format=pdf
9. Louis-Jacques A, Alison Stuebe MD. Long-term maternal benefits of breastfeeding. Contemporary Ob/Gyn. 2018 Jul 1;63(7):26-29. https://www.contemporaryobgyn.net/view/ long-term-maternal-benefits breastfeeding

10. Khaled Awawdi, Orsan Yahya, Mohammad Sabbah, Sana Bisharat, Mahdi Tarabeih. Factors Influencing Exclusive Breastfeeding Amongst Arab Mothers in Israel: Social, Cultural, and Occupational Aspects.Healthcare (Basel). 2025 Apr 8;13(8):852. doi: 10.3390 /healthcare13080852
11. Tran Huu Bich, Dinh Thi Phuong Hoa, Nguyen Thanh Ha, Le Thi Vui, Dang Thi Nghia, Mats Malqvist. Father's involvement and its effect on early breastfeeding practices in Viet Nam. Matern Child Nutr. 2015 Aug 11;12(4):768–777. doi: 10.1111/mcn.12207.
12. Williams PL, Innis SM, Vogel AM, Stephen LJ. Factors influencing infant feeding practices of mothers in Vancouver. Canadian Journal of Public Health. 1999 Mar;90(2):114-119. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6980178/pdf/41997_1999_Article_BF03404113.pdf
13. Scott JA, Binns CW, Aroni RA. The influence of reported paternal attitudes on the decision to breast-feed. Journal of paediatrics and child health. 1997 Aug;33(4):305-307. https://onlinelibrary.wiley.com/doi/abs/10.1111/j.14401754.1997.tb01605.x?sid=nlm%3Apubmed
14. Kong SK, Lee DT. Factors influencing decision to breastfeed. Journal of advanced nursing. 2004 May;46(4):369-79. https://pubmed.ncbi.nlm.nih.gov/15117348/
15. Radzyminski S, Callister LC. Mother's beliefs, attitudes, and decision making related to infant feeding choices. The Journal of perinatal education. 2016;25(1):18. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4719110/
16. Sandhya Jagadale, Jyoti A. Salunkhe, Kavita S. Kapurkar, Sangeeta Patil, Naseema V. Kanase.To Assess Knowledge, Attitude and Knowledge of Practice Regarding Breast Feeding among Primi Para Mother. Journal of Evolution of Medical and Dental Sciences 2015; Vol. 4, Issue 30, April 13; Page: 5121-5127, doi: 10.14260/jemds/2015/748.
17. Madhu Gupta , Arun Kumar Aggarwal. Feasibility Study of IMNCI Guidelines on Effective Breastfeeding in a Rural Area of North India. Indian J Community Med. 2008 Jul;33(3):201-3. doi: 10.4103/0970-0218.42067.
18. Poreddi Vijayalakshmi, (1) Susheela T, (2) Mythili D. Knowledge, attitudes, and breast feeding practices of postnatal mothers: A cross sectional survey. International Journal of Health Sciences, Qassim University, Vol. 9, No. 4 (Oct-Dec 2015)
19. Sultania P, Agrawal NR, Rani A, Dharel D, Charles R, Dudani R. Breastfeeding knowledge and behavior among women visiting a tertiary care center in India: A cross-sectional survey. Annals of global health. 2019;85(1):64. doi: 10.5334/aogh.2093.
20. Kumar S, Jha SK, Singh A, Rawat CM, Awasthi S, Bano M, Surana A. Knowledge, Attitude and Practices (KAP) Regarding Breastfeeding: A Community based Cross Sectional Study from Rural Uttrakhand. Healthline Journal.org 2015 volume 6 issue2 [Internet]: 17-22
21. Swati Singh, Nitin Tiwari, Anil Kumar Malhotra. A cross-sectional study on exclusive breastfeeding practice among lactating females attending medical college, district Jhansi (U.P) International Journal of Medical Science and Public Health 6(2):1. doi:10.5455/ijmsph.2017.04082016626
22. Shwetal B, Pooja P, Neha K, Amit D, Rahul P. Knowledge, attitude and practice of postnatal mothers for early initiation of breast feeding in the obstetric wards of a tertiary care hospital of Vadodara city.Semantic Scholar [Internet]. 2012 [cited 20 January 2022];Corpus ID: 74183760.
23. Dinesh Kumar, Neeraj Agarwal, H. M. Swami. Socio demographic correlates of breastfeeding in Urban slums of Chandigarh. Indian Journal of Medical Sciences 60(11):461-6. DOI:10.4103/0019-5359.27973.
24. Gupta A, Dadhich JP, Manazir Ali S, Thakur N. Skilled Counselling in Enhancing Early and Exclusive Breastfeeding Rates: An Experimental Study in an Urban Population in India. Indian pediatrics. 2019 Feb 1;56(2):1-4.

25. D.G. Benakappa, Manikya Raju, , Asha D. Benakappa. Breast-Feeding Practices in Rural Karnataka (India) with Special Reference to Lactation Failure. Pediatric International.1989 AugustVolume31, Issue4:391-398. https://doi.org/10.1111/j.1442-200X.1989.tb01323.x
26. M Girish, N Mujawar, P Gotmare, N Paul, S Punia, P Pandey. Impact and feasibility of breast crawl in a tertiary care hospital. J Perinatol. 2013 Apr;33(4):288-91. doi: 10.1038/jp.2012.109
27. Banapurmath, M.C. Nagaraj, Shobha Banapurmath and Nirmala Kesaree. Breastfeeding practices in villages of central Karnataka c.r. July 12,1994; Accepted January 25,1996.

Figure 1: Age wise distribution of children

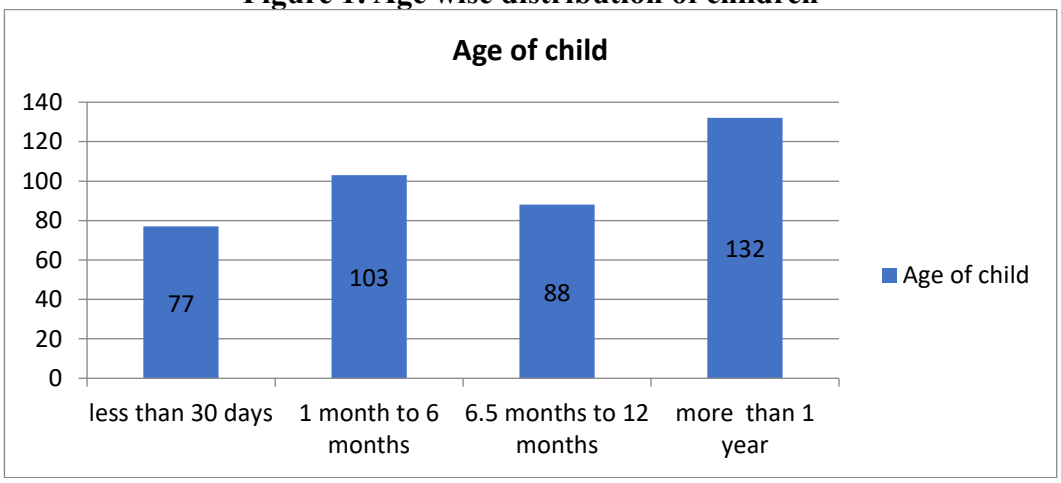

Figure 2: Sex of child

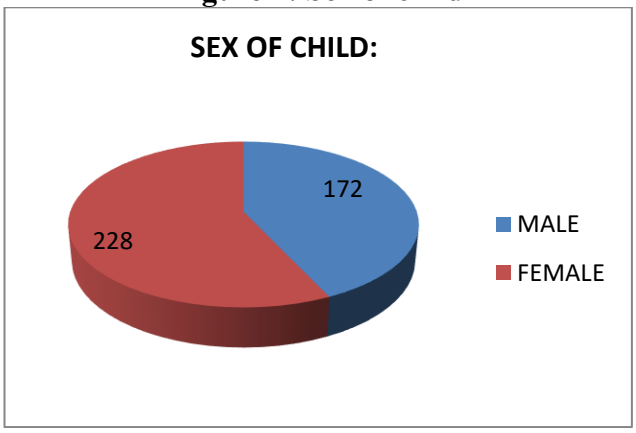

Fig -3 : Socio-economic status

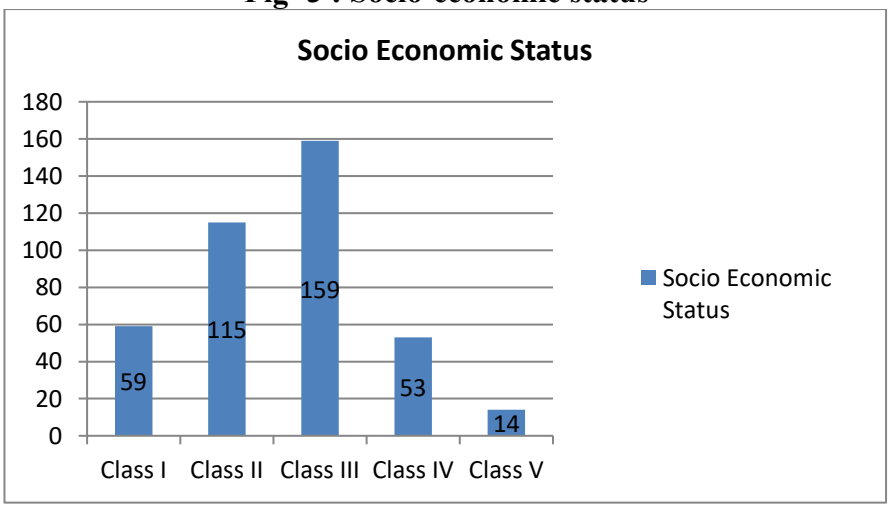

Figure 4 : Association of parity with how soon was the baby breastfed after delivery

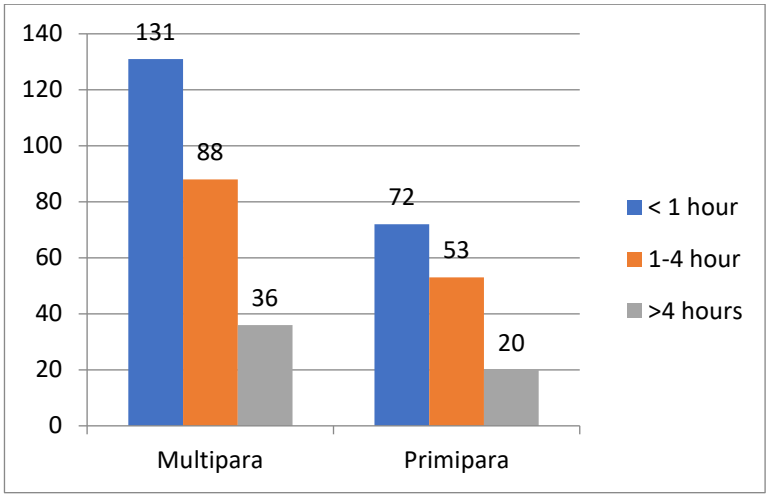

Table 1: Educational status of the mother

Education	Frequency	Percentage
Informal education	7	1.8
Primary school	30	7.5
Middle school	38	9.5
High school	121	30.3
Intermediate	157	39.3
Graduate	34	8.5
Post Graduate	13	3.3
Total	400	100.00

Table2: Neonatal complications

Neonatal complications	Frequency	Percentage
Nil	303	75.75
Asphyxia	4	1.00
Jaundice	58	14.50
Low birth weight(LBW)	14	3.50
Preterm	6	1.50
Respiratory distress syndrome (RDS)	10	2.50
Sepsis	5	1.25
Total	400	100.00

Table3 :Questions to assess knowledge of mothers towards breastfeeding (n=400):

	Questions Do you know ,	Yes	No
1	What is colostrum?	48	352
		12%	88%
2	Burping has to be given after each breastfeed	354	46
		88.5%	11.5%
3		130	270

	Ideally breastfeeding has to be initiated within one hour after delivery	32.5%	67.5%
4	Breast milk is best milk for baby	367	33
		91.8%	8.3%
5	What is expressed breast milk?	96	304
		24%	76%
6	What are pre-lacteal feeds?	62	338
		15.5%	84.5%
7	Till 6 months exclusive breastfeeding has to be given?	165	235
		41.3%	58.8%
8	Breast feeding has to be continued, even when baby is started on complementary foods	330	70
		82.5%	17.5%
9	Breastfeeding helps in mother and child bonding	287	113
		71.8%	28.2%
10	Breast has to be completely emptied before shifting to the other breast	231	169
		57.8%	42.3%
11	During breastfeeding the mother has to maintain eye to eye contact, touch, caress and talk to the baby	307	93
		76.8%	23.3%
12	Each breast has to be washed with warm water before each breastfeeding	149	251
		37.3%	62.8%
13	Breastfeeding is beneficial for both mother and baby	321	79
		80.3%	19.7%
14	Working women can provide expressed breast milk to their baby	82	318
		20.5%	79.5%
15	Formula fed babies are susceptible to diseases	94	306
		23.5%	76.5%

Table 4: Questions to assess attitude of mothers towards breastfeeding (n=400):

	Questions Do you think ,	Yes	No	Don't know
1	Breast feeding has to be stopped when you start complementary foods	42	324	34
		10.5%	81.0%	8.5%
2	Breast feeding protects baby from diarrheal and respiratory diseases	193	149	58
		48.3%	37.3%	14.5%
3	Breastfeeding increases mother infant bonding	262	46	92
		65.5%	11.5%	23.0%
4	Breastfeeding will affect the beauty of the feeding mother	25	233	142
		6.3%	58.3%	35.5%

5	Breastfeeding is more convenient than formula milk	337	22	41
		84.3%	5.5%	10.3%
6	Formula feeding is better choice if the mother plans to go back to work	260	87	53
		65.00%	21.8%	13.3%
7	Discarding the colostrum/first milk is important	99	216	85
		24.8%	54.00%	21.3%
8	Breastfeeding babies are healthier than formula fed babies	324	15	61
		81.00%	3.8%	15.3%
9	Breast milk is ideal for babies	334	25	41
		83.5%	6.3%	10.3%
10	Mothers who occasionally drink alcohol shouldn't breastfeed their baby	276	33	91
		69.00%	8.3%	22.8%

Table5: Association of education of the mother with how many times, the baby is breastfed during daytime

			How many times, the baby is breastfed during daytime?			
			<3 times	4-8 times	>8 times	Total
Education of the mother	Informal education	Count	1	5	1	7
		%	14.3%	71.4%	14.3%	100.0%
	primary school	Count	0	28	2	30
		%	0.0%	93.3%	6.7%	100.0%
	Middle school	Count	1	31	6	38
		%	2.6%	81.6%	15.8%	100.0%
	High school	Count	1	98	22	121
		%	0.8%	81.0%	18.2%	100.0%
	Intermediate	Count	6	122	29	157
		%	3.8%	77.7%	18.5%	100.0%
	Graduate	Count	1	24	9	34
		%	2.9%	70.6%	26.5%	100.0%
	Post graduate	Count	2	9	2	13
		%	15.4%	69.2%	15.4%	100.0%
Total		Count	12	317	71	400
		%	3.0%	79.3%	17.8%	100.0%

Chi-square test, $\chi 2=17.968$, d.f =12, p= 0.117