

# An Explorative Study to Determine the Perceived Breastfeeding Efficacy and its Determinants

Pavitra Hondappagol<sup>1\*</sup>, Jayashri Awarasang<sup>2</sup>, Deelip S. Natekar<sup>3</sup>

<sup>1</sup>Student, Dept. of OBG Nursing, Shri B.V.V.S Sajjalashree Institute of Nursing Sciences, Bagalkot, India

<sup>2</sup>Associate Professor, Dept. of OBG Nursing, Shri B.V.V.S Sajjalashree Institute of Nursing Sciences Navanagar, Bagalkot, Karnataka, India

<sup>3</sup>Principal, Dept. of Community health Nursing B.V.V.S Sajjalashree Institute of Nursing Sciences Navanagar, Bagalkot, India

**\*Address for Correspondence:** Pavitra Hondappagol, Student, Dept. of OBG Nursing, Shri B.V.V.S Sajjalashree Institute of Nursing Sciences, Bagalkot, India

**E-mail:** [pavitrahondappagol08@gmail.com](mailto:pavitrahondappagol08@gmail.com)

Received: 06 Feb 2023 / Revised: 23 Apr 2023 / Accepted: 23 Jun 2023

## ABSTRACT

**Background:** Breastfeeding (BF) is considered one of the basic pillars to promote and protect children's health and its social impact can be assessed through reduced medical consultations.

**Methods:** This qualitative, non-empirical study with a sample of 200 mothers and a cross-sectional descriptive survey to achieve the set objectives. The study will be conducted at a selected hospital in Bagalkot. An open and closed structured questionnaire collected information from nursing mothers.

**Result:** The distribution of the proportion of mothers by socio-demographic among 200 mothers had the highest age-based ratio of 46% in the 24-29 age group. 56% high school level. 73% of mothers are housewives, 57 years old. The delivery method is 62% of full-term vaginal delivery. According to the program, 80% when crying normally and 64.5% when feeding. Birth weight is 49.5%, if from 1000 to 2500 g, a statistically significant relationship exists between baby's behavior  $\chi^2=0.41$ , breastfeeding pattern  $\chi^2=0.87$ , birth weight of children  $\chi^2=0.02$ ,  $p>0.05$ .

**Conclusion:** The study results showed a significant positive relationship between mothers' breastfeeding effectiveness and participants' confidence. This factor can help healthcare providers predict the period of breastfeeding and the success rate of exclusive breastfeeding in mothers, thereby identifying mothers at risk of stopping breastfeeding. Early breastfeeding.

**Key-words:** Breastfeeding mothers, Determinants, Self-Efficacy, Explorative study, Hospital

## INTRODUCTION

Breastfeeding improves a child's growth, health, and survival. Breast milk protects infant health; there is ample evidence of the long- and short-term benefits of breastfeeding for mothers and children and its benefit in supporting mental health. mental, physiological and developmental through nutrition in breast milk to reduce morbidity and mortality in infants, especially during the first few months of life <sup>[1]</sup>.

Breastfeeding is one of the most natural ways to nourish babies under 24 months of age to get sufficient nutrition for healthy growth and development. Benefits for babies include providing good nutrition, immunity, reducing the risk of sudden infant death syndrome and diseases like type 1 diabetes. Eventually, babies also develop a relationship. Strong emotional attachment with mother through frequent skin-to-skin contact. It also reduces maternal risk conditions such as breast cancer, cardiovascular disease, and rheumatoid arthritis, and many more <sup>[2]</sup>.

Breastfeeding satisfaction was defined as mothers' perceptions of their satisfaction and success in breastfeeding. Sometime-related factors are age, education level, employment, household income, number of births and birth pattern.

### How to cite this article

Hondappagol P, Awarasang J, Natekar DS. Value chain of Pangasius (*Pangasius hypophthalmus*) in Rupandehi and Nawalparasi districts of Nepal. SSR Inst. Int. J. Life Sci., 2023; 9(4): 3252-3257.



Access this article online

<https://ijls.com/>

In addition, the knowledge, attitude, self-efficacy, intention, and social support that mothers receive also affect satisfaction. Breastfeeding problems relate to nursing mothers' satisfaction and influence early breastfeeding [3].

Confidence in her ability to breastfeed indicates that a mother's ability to breastfeed is because she believes it imposes on her choices about initiating breastfeeding. To boost self-confidence, a mother must believe that breastfeeding has resulted in positive outcomes for both

mother and baby. The mother must ensure confidence in performing breastfeeding. If the mother has had prior breastfeeding experience, this study explains a mother's attitudes and confidence [4].

Breastfeeding is the satisfaction obtained during breastfeeding due to the mother and child's participation in satisfying a want or need [5]. And the result is enhanced bond formation between mother and child while enhancing the overall health of mother and baby [6].

## MATERIALS AND METHODS

It was a Qualitative non-experimental study to evaluate Breastfeeding self-efficacy among mothers in a selected hospital in Bagalkot, Karnataka. Out of 230 mothers, 200 were selected by complete enumeration sampling technique excluding 30 mothers based on inclusive criteria with closed-ended questionnaires to explore breastfeeding self-efficacy. We took authorization from a selected hospital in Bagalkot and then approached the mothers, described the purpose of the study and gained informed consent.

### Study Design and Participants

**Breastfeeding Mother-** This is a descriptive study conducted with 200 lactating mothers. A cross-sectional descriptive study design was used to collect data on the effectiveness of breastfeeding and its determinants through a non-experimental descriptive method. The study was conducted in a selected hospital in Bagalkot, India. The populations studied were breastfeeding mothers. The sampling technique used is complete enumeration by simple random sampling.

## RESULTS

**Socio-demographic and clinical characteristics of mother-** Most subjects were in the 24-29 age group. 56% of the subjects' mothers had a junior high school diploma. 44.5% of husbands have a secondary school diploma. 51% of subjects were mothers of multiples.

**Inclusion criteria-** Nursing mothers, Mothers who consented to participate in the study, Mothers who could follow the instructions, Ages 18 to 41.

**Exclusion criteria-** The mother was critically ill, and we could not collect the data. At the time of data collection, lactation was assumed outside the study area due to serious obstetric conditions and multiple pregnancies.

**Statistical Analysis-** The data were inspected by using descriptive and inferential statistics. The numerical data obtained from the sample is classified and summarized using descriptive statistics, including percentage, mean, median, and standard deviation. Using sociological data, the Dennis scale was used to link the determinants of breastfeeding effectiveness. Chi-square test and logistic regression analysis.

**Ethical Clearance-** Institutional Ethics Committee of BVVS Sajjalashree Institute of Nursing Science, Bagalkot, Karnataka, India accepted ethical clearance.

73% of the subjects were professional housewives. 77% of the subjects were Hindu. 69% of the subjects lived in rural areas. 57.5% of the subjects belonged to ordinary families. 58.5% of subjects had a monthly family income of 5001-10000. 81.5% of respondents had information sources such as doctors/medical staff (Table 1).

**Table 1:** Association between socio-demographic data and Dennis scale

Variables	Chi-Square value ( $\chi^2$ )	DF	p-value
Age in years	1.04	2	0.5945
Mother education	2.07	2	0.3552
Husband education	0.56	2	0.7558

Parity	2.68	1	0.1016
Occupation of mother	0.01	1	0.9203
Religion	0.01	1	0.9203
Residence	2.25	1	0.1336
Family income	2.17	1	0.1407
Type of family	1.55	1	0.2131
Source of information about breastfeeding	0.12	1	0.729

A significant association found between Husband education  $\chi^2=0.56$ ,  
 Occupation of mother  $\chi^2=0.01$ ,  
 Source of information about breast feeding  $\chi^2=0.12$

**Determinants among breastfeeding mothers-** Most of the factors affecting the mother during lactation are birth method, the chi-squared value of 2.1, child's behaviour 0.41, gestational age at birth 4.23, number of days postpartum 4.45, lactation pattern 0.87, neonatal infection 4.6, breast-related problems 1.7, maternal complications 2.48, psychological status 0.17, breast tenderness 2, 25, start lactation 3.48.

An association found between determinants and dennis scale. Findings depict there was a significant association found between infant behaviour  $\chi^2=0.41$ , psychological condition  $\chi^2=0.17$ , type of breastfeeding  $\chi^2=0.87$ , baby admitted to NICU  $\chi^2=0.04$ , birth weight of baby  $\chi^2=0.02$ ,  $p>0.05$  (Table 2).

**Table 2:** Association between Determinants and Dennis Scale

Determinants	Chi-Square value ( $\chi^2$ )	DF	P-value
Type of Delivery	2.1	1	0.1473
Gestational age at delivery	4.23	2	0.1206
Infant Behaviour	0.41	2	0.8146
Initiation of breast feeding	3.48	1	0.0621
Delivery associated Maternal complications	2.48	1	0.1198
Breast related problem	1.7	1	0.1923
Psychological condition	0.17	1	0.6801
Breast pain	2.25	1	0.1336
Number of postnatal days	4.45	2	0.1013
Type of breastfeeding	0.87	2	0.6473
Neonatal infection	4.16	2	0.1249
Baby admitted to NICU	0.04	1	0.8415
Birth Weight of baby	0.02	1	0.8875
Congenital Malformation	0.66	1	0.4166

**DISCUSSION**

The present study was conducted to know the socio-demographic data, their determinants for nursing mothers, and self-efficacy at a selected hospital in

Bagalkot, India. A non-empirical descriptive study design was applied to achieve the study's objectives. A sample of 200 mothers for the present study was selected using convenience sampling. The reasonable distribution of

maternal mortality by age group shows that among 200 mothers, the highest proportion is 46% in the 24 to 29 age group [7]. Total of 43% of mothers aged 18 to 23 years. 6% in the age group 30-35. The lowest rate is 5% in the age group under 18 years old [8]. It revealed that most mothers in the study belonged to the age group of 24 to 29 years. 56% of mothers had intermediate education, 24% had primary education, 16% had intermediate or higher degrees, and 4% had no formal training [9]. Most of the mothers have a lower secondary education. Education level of husbands 44.5% of husbands have a high school diploma, 27.5% have an intermediate degree or higher, 16% of husbands have a primary school degree, and 12% of husbands do not have a formal degree. Most of the husbands are in high school [10]. The majority religious 77% were Hindu mothers, 20.5% were Muslim mothers, 2% were other religious mothers, and 0.5% were Christian mothers [11]. 49% of mothers are primi, and 51% are from multiracial households. 58.5% of mothers reside, with the highest percentage being 69% of mothers in rural areas and 31% of mothers in cities [12]. It revealed that the majority of mothers' occupations belong to housewives. 57.5% belong to the common family (Moore and Coty [13]). A study was directed to investigate the prevalence of early lactation and identify factors correlated with breast-feeding until 4-6 weeks postpartum in our community. This study concluded that breast-feeding was the only modifiable factor associated with exclusive breast-feeding. Improving breast-feeding confidence can support breast-feeding in this population [14].

The highest rate was 66.5% full-term mothers and 18% premature mothers. And 15.5% of mothers gave birth prematurely. It revealed that the highest rate was 80% during normal crying, 15% during calm infant behavior, and the lowest rate was 5% when irritable [15]. It revealed that the highest percentage was 58% within half an hour of delivery, 29.5% within 6 hours of delivery, 8% within 24 hours of delivery, and 4.5% within 12 hours after delivery. Maternal complications. The highest rate was 91% having no maternal complications during childbirth and 9% having maternal complications during childbirth [16]. 81% of babies had no congenital disabilities, 17% had heart defects, and 2% had spina bifida. An association was found between the determinants and the Dennis scale. This study result shows that there is a statistically significant relationship between infant behavior  $\chi^2=0.41$ ,

psychological state  $\chi^2=0.17$ , breast-feeding pattern  $\chi^2=0.87$ , children admitted to the NICU  $\chi^2=0.04$ , birth weight  $\chi^2=0.02$ ,  $p>0.05$ . An association was found between the determinants and the Dennis scale. The findings show it. a significant association was found between infant behavior  $\chi^2=0.41$ , psychological status  $\chi^2=0.17$ , breastfeeding pattern  $\chi^2=0.87$ , NICU admission  $\chi^2=0.04$ , birth weight  $\chi^2=0.02$ ,  $p>0.05$ . A study was conducted to evaluate the prevalence of exclusive breast-feeding in the early postpartum period and mothers' attitudes towards breast-feeding in a population of mothers from the hospitals in San Francisco [17]. For WIC participation, the sample size was approximately 224, depending on the interview method. Results presented that an increased proportion (79.8%) of our sample was exclusively breast-fed from 1 to 4 days after postpartum. We could not discover any significant difference in the formulation of mixed feeding rates by WIC participant status [18]. Independent risk factors for mixed feeding or formula feeding for about 1 to 3 days after birth include Asian/Pacific Islander ethnicity (odds ratio [OR] 2.90), 95% confidence interval (CI) 1.17–7.19 [19]. College graduation was associated with a reduced risk of formula/mixed feeding (OR 0.28, 95% CI 0.10–0.79). We also found that thinking regarding breast-feeding causes pain and discomfort was independently associated with not breast-feeding (OR 1.41, 95% CI 1.06-1.89), which decreases the rates of exclusive breast-feeding in this population and should address negative attitudes towards breast-feeding.

## CONCLUSIONS

This study shows that breastfeeding mothers have poor knowledge about breastfeeding, and most first-time mothers are affected by its effectiveness. There must be a strategy to increase mothers' knowledge about breastfeeding. Strategies to be applied are maternal education, counselling, and breastfeeding techniques in the postpartum period.

To improve the effectiveness of mothers, it is necessary to implement educational programs for pregnant women and mothers to increase their positive attitude and interest in breastfeeding and encourage mothers to exclusive breastfeeding for the first six months of life.

## CONTRIBUTION OF AUTHORS

**Research concept-** Dr Dileep Natekar, Jayashri Awarsang

**Research design-** Jayashri Awarsang

**Supervision-** Jayashri Awarasang

**Materials-** Jayashri Awarsang

**Data collection-** Pavitra Hondappagol

**Data analysis and interpretation-** Pavitra Hondappagol

**Literature search-** Pavitra Hondappagol

**Writing article-** Pavitra Hondappagol

**Critical review-** Jayashri Awarsang

**Article editing-** Jayashri Awarsang

**Final approval-** Dr Dileep Natekar

## REFERENCES

- [1] Maduforo A, Ubah C. Introduction to breast-feeding in Owerri metropolis, Imo State, Nigeria. Department of Nutrition and Dietetics, Imo State University Owerri, Nigeria, 2013.
- [2] Agampodi SB, Agampodi TC, De Silva A. Benefits of breast milk to baby in Sri Lanka: problems of interpretation of reported rates. *Int Breast-feed J.*, 2009; 4: 14.
- [3] Huifeng S, Yumei Y, Xiaohan Y, Jia L, Jin F, et al. Determinants of exclusive breastfeeding for the first six months in China: a cross-sectional study. *Int Breastfeeding J.*, 2021; 16: 40. doi: 10.1186/s13006-021-00388-y.
- [4] Meredith B, Karen B, Alix H. Interventions to Improve Breastfeeding Self-Efficacy and Resultant Breastfeeding Rates: A Systematic Review and Meta-Analysis. *J Human Lactation*, 2017; 33(3): 486-99. doi: 10.1177/0890334417707957.
- [5] Ratnayake HE, Rowel D. Prevalence of exclusive breastfeeding and barriers for its continuation up to six months in Kandy district, Sri Lanka. *Int Breastfeeding J.*, 2018; 13: 36. doi: 10.1186/s13006-018-0180-y.
- [6] Fenta EH, Yirgu R, Shikur B, Gebreyesus SH. S single 24 h recall Outcomes of the breast-feeding participation in rural Ethiopia. *Int Breast-feed J.*, 2017; 12: 36.
- [7] Sri Lanka Demographic and Health Survey 2016. Available At: <http://www.statistics.gov.lk/Resource/en/Health/DemographicAndHealthSurveyReport-2016-Contents.pdf>. Demographic Health Survey, 2016.
- [8] Brockway M, Benzies K, Hayden KA. Interventions to Improve Breastfeeding Self-Efficacy and Resultant Breastfeeding Rates: A Systematic Review and Meta-Analysis. *J Hum Lac.*, 2017; 33(3): 486-99. doi: 10.1177/0890334417707957.
- [9] Loke AY, Chan LKS. Maternal Breastfeeding Self-Efficacy and the Breastfeeding Behaviors of Newborns in the Practice of Exclusive Breastfeeding. *J Obstetric Gynecol Neonatal Nur.*, 2013; 42(6): 672-84.
- [10] Glassman ME, McKearney K, Saslaw M, Sirota DR. Impact of breastfeeding self-efficacy and sociocultural factors on early breastfeeding in an urban, predominantly Dominican community. *Breastfeed Med.*, 2014; 9(6): 301-07. doi: 10.1089/bfm.2014.0015.
- [11] Joseph FI, Earland J. A qualitative exploration of the Statistical Analysis of breast-feeding mothers based on their religion, North West Nigeria. *Int breast-feeding*, 2019; 14: 38. doi: 10.1186/s13006-019-0231-z.
- [12] Henshaw EJ, Fried R, Siskind E, Newhouse L, Cooper M. Breastfeeding Self-Efficacy, Mood, and Breastfeeding Outcomes among Primiparous Women. 2015; 31(3): 511-18. doi: 10.1177/0890334415579654.
- [13] Moore ER, Coty MB. Prenatal and Postpartum Focus Groups with Primiparas: Breastfeeding Attitudes, Support, Barriers, Self-efficacy, and Intention. *J Pediatric Health Care*, 2006; 20(1): 5-46. doi: 10.1016/j.pedhc.2005.08.007.
- [14] Dawn K, Cindy-Lee D, Wendy S. Exploring Breastfeeding Self-efficacy. *J Perinatal Neonatal Nurs.*, 2007; 21(3): 207-15. doi: 10.1097/01.JPN.0000285810.13527.a7.
- [15] Li L, Wu Y, Wang Q, Du Y, Friesen D, et al. Determinants of breastfeeding self-efficacy among postpartum women in rural China: A cross-sectional study. *PLOS ONE*, 17(4): e0266273. doi: 10.1371/journal.pone.0266273.
- [16] Titaley CR, Dibley MJ, Ariawan I, Mu'asyaroh A, Alam A, et al. Determinants of low breastfeeding self-efficacy amongst mothers of children aged less than six months: results from the BADUTA study in East Java, Indonesia. *Int Breastfeed J.*, 2021; 16: 12. doi: 10.1186/s13006-021-00357-5.
- [17] Wojcicki JM, Gugig R, Tran C, Kathiravan S, et al. Early Exclusive Breastfeeding and Maternal Attitudes Towards Infant Feeding in a Population of New

- Mothers in San Francisco, California. *Breastfeeding Med.*, 2010; 5(1): 9: doi: 0.1089/bfm.2009.0003.
- [18] Fryer K, Santos HP, Pedersen C, Alison M. The Hispanic Paradox: Socioeconomic Factors and Race/Ethnicity in Breastfeeding Outcomes. *Breastfeeding Med.*, 2018; 13(3): 174-80.
- [19] Martinez NN, Wallenborn J, mausezahi D, Hartinger SM, et al. Socio-cultural factors for breastfeeding cessation and their relationship with child diarrhoea in the rural high-altitude Peruvian Andes-a qualitative study. *Int J Equity Health*, 2021; 20: 165. doi: 10.1186/s12939-021-01505-3.

**Open Access Policy:**

Authors/Contributors are responsible for originality, contents, correct references, and ethical issues. SSR-IJLS publishes all articles under Creative Commons Attribution- Non-Commercial 4.0 International License (CC BY-NC). <https://creativecommons.org/licenses/by-nc/4.0/legalcode>

