

# Investigating Exclusive Breastfeeding Knowledge, Practices and Perceived Barriers among Post natal Women in the Zonal Hospital in West Bengal

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**Abstract:** ***Introduction:** Pregnancy and childbirth are the two important phases in women's life. It is said a women takes a rebirth after delivering a child, and really this is true. Women enters the phase of motherhood, with motherhood comes the responsibilities, rearing the child, breastfeeding and exclusive breast feeding till 6 months. **Aims & objectives:** To assess exclusive breastfeeding knowledge, practices and perceived barriers among Post natal women in the Zonal Hospital in West Bengal. **Material and Methods:** A quantitative descriptive study conducted among the postnatal mothers admitted at the selected zonal hospital in West Bengal. Purposive convenient sampling technique was used for data collection. A self - administered structured questionnaire on knowledge, practice of exclusive breast feeding and perceived barriers to exclusive breast feeding were developed. **Results:** In this research conducted among 75 lactating mothers, 39.3% were between the age group 21 - 30yrs, 78.7% were housewives, 45.3% were graduates and 16% were equal to and less than matriculation. 68% were living in joint family and 32% in nuclear family. 78.7% had house help availability and 21.3% had no house help. 94.7% were from non - health care background, 52% belonged to rural area and 48% belonged to urban. 54.7% were multi para and 45.3% were primi mothers. Highest number of postnatal mothers 38.7% had poor knowledge on exclusive breast feeding, 34.7% had average knowledge and 27.6% had good knowledge on exclusive breast feeding. 60% followed average level of exclusive breastfeeding practices and 22.7% followed good breast feeding practice. 14.6% had high perceived barriers during exclusive breast feeding and 45.3% had moderate perceived barriers during exclusive breast feeding. There was a significant relationship between availability of house help to the postnatal mothers and practices. There was a significant correlation between knowledge & practice score, knowledge & barrier score & practice & barrier score with a p value < 0.0001. **Conclusion:** The study concluded that there is poor knowledge among postnatal mothers regarding exclusive breast feeding. It was observed that exclusive breast feeding within 1hour was just average. There were many perceived barriers among postnatal mothers regarding exclusive breast feeding and most common was mothers having less amount of breast milk. This study emphasizes the need for breastfeeding intervention program for the mothers during antenatal and postnatal checkups.*

**Keywords:** Exclusive breast feeding, knowledge, practice, perceived barriers

## 1. Introduction

Exclusive breastfeeding during the first six months of life and then continuation while adding complementary feeding up to two years was and still is recommended by WHO, UNICEF and the American Academy of Paediatrics<sup>1</sup>.

Breastfeeding is the normal way of giving infants the needed nutrients for proper growth. A wide range of breast feeding's benefits for mother, child and family are well known and documented in many perspectives as socioeconomic and psychological. Furthermore, it is well known that, these benefits can be either immediate or long - term. To promote breastfeeding and ensure that adequate counselling and support are provided to initiate and maintain optimal breastfeeding practices, UNICEF and WHO started the Baby Friendly Initiative (BFI) in 1991 and required 10 steps for hospital accreditation as baby friendly.<sup>1</sup>

Although breastfeeding is a natural practice, still there are many factors negatively affecting women's attitudes toward it and a lot of barriers halting its conduction. Some mothers find it difficult to adhere to exclusive breastfeeding for six months despite the increased rate of initiation. Further, some studies conducted revealed that, the percent of exclusive

breastfeeding was low despite having a high level of education. Also, mixed feeding was the common way of feeding. Additionally, reasons for discontinuing breastfeeding were individualized as sickness of mother or baby, use of contraception or taking drug.<sup>2</sup>

Even while the number of women who breastfeed is steadily rising globally, optimal breastfeeding practices are falling behind, particularly in low - resource and rural areas, such as among Indian rural communities. India ranked 78th out of 150 countries in the 2015 World Breastfeeding Trends Initiative Report on breastfeeding practices, with less than half (44.6%) of newborns being breastfed within the first hour of birth each year and roughly two thirds (64.9%) being optimally breastfed during the first few years of life.<sup>3</sup>

The perceived barriers of breastfeeding, like, working, low income, pushing formula into hospital and heavy formula advertisements can limit the breastfeeding practices in addition to, lack of information, fear of pain, misconceptions, worries about breastfeeding in public, negative postpartum hospital experiences and lack of support after going home. At the national level, previous studies added insufficient milk supply, being too busy to breastfeed, change in breast shape and availability of housekeepers acted as barriers among women. So, it can be

Volume 14 Issue 2, February 2025

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

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concluded that, the breastfeeding practices may be far from WHO's recommendations.<sup>2</sup> Finally, it is expected that, understanding reasons limiting breastfeeding practice can help nurse to develop effective strategies helping to promote and encourage breastfeeding practice and reach the Fifth Global Nutrition Target. Especially because, the leading health organizations emphasize that countries at or near 50% exclusive breastfeeding should continue to strive for improvement.<sup>1</sup> Accordingly, the aim of the current study is to assess breastfeeding knowledge, practices and perceived barriers to breastfeeding among women in a Zonal hospital in West Bengal.

**Aim**

Assessment of breastfeeding knowledge, practices and perceived barriers among Post natal mothers in the Zonal Hospital in West Bengal.

**Specific Objectives**

- To assess the knowledge level of Post natal mothers about benefits of breastfeeding.
- To assess the practices of exclusive breastfeeding among the Postnatal mothers.
- To assess the Post natal mothers perceived barriers to breastfeeding.
- To correlate postnatal mothers breastfeeding knowledge, practices and perceived barriers to their socio - demographic variables.

**Research Questions**

- What is the Postnatal mother's knowledge level about the benefits of breastfeeding?
- How did the Postnatal mother's practice breastfeeding?
- What are the Postnatal mother's perceived breastfeeding barriers?
- Is there a correlation between breastfeeding knowledge, practices, perceived barriers and socio - demographic variables?

**Study Design:** quantitative descriptive study design

**Study Area/Setting**

Data was collected at Zonal hospital in West Bengal. Fam - I is a Postnatal ward where about 750 women are admitted annually after their vaginal or cesarean births.

**Study Subjects/Sample Size/Sampling Technique**

**Sample size calculation:** calculated based on a gold standard study in which p=62% (good knowledge regarding breastfeeding health benefits for mother)  
Confidence level =95%, Z=1.96  
Absolute precision =E=11%

$$n = \frac{Z^2 pq}{E^2} = \frac{(1.96)^2 \cdot 62 \cdot 38}{(11)^2} = 75 \text{ cases}$$

**2. Methods**

This is a quantitative descriptive study done among the postnatal mothers. Purposive convenient sampling technique was used for data collection. The data was collected with the

help of self - administered structured questionnaire on knowledge, practice of exclusive breast feeding and perceived barriers to exclusive breast feeding among Postnatal mothers. The structured questionnaire had four parts as given below:

**Part I:** This part included demographic characteristics of the participants.

**Part II:** This part included the questionnaire on knowledge of study participants toward exclusive breast feeding.

**Part III:** This part included the questionnaire on practice of study participants towards exclusive breast feeding.

**Part IV:** This part included the questionnaire on barriers to exclusive breast feeding among the study participants

75 post natal women were recruited in convenience and interviewed face to face after their deliveries using structured questionnaire. Women who were most readily accessible and willing to participate, primiparous and multiparous women were included in the study. While, women who had multiple pregnancies, any postpartum complication, stillbirth or infants with congenital anomalies or their babies admitted to NICU were excluded.

**Descriptive statistics:**

Frequency and percentage was used to assess the demographic variables

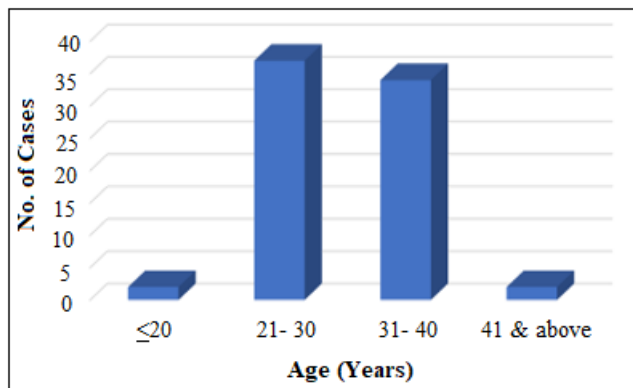
**Inferential statistics:**

Mann Whitney test, and testing of hypothesis was done with p value of 0.05

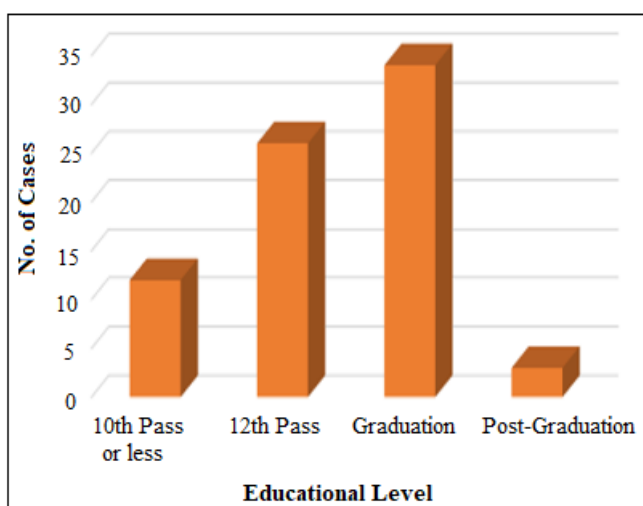
**3. Results**

**Table 1:** Socio - demographic data in study group

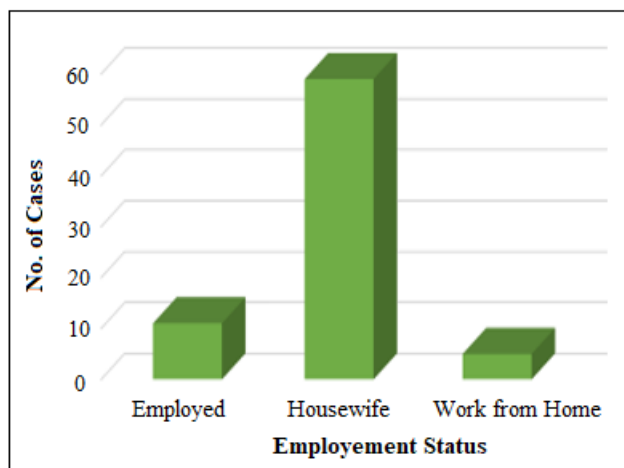
|                         | Parameters                    | No of cases | Percentage (n=75) |
|-------------------------|-------------------------------|-------------|-------------------|
| Age (Yrs)               | ≤20                           | 2           | 2.7               |
|                         | 21 – 30                       | 37          | 49.3              |
|                         | 31 – 40                       | 34          | 45.3              |
|                         | 41 & above                    | 2           | 2.7               |
| Educational level       | 10 <sup>th</sup> Pass or less | 12          | 16.0              |
|                         | 12 <sup>th</sup> pass         | 26          | 34.7              |
|                         | Graduation                    | 34          | 45.3              |
|                         | Post graduation               | 3           | 4.0               |
| Employment status       | Employed                      | 11          | 14.7              |
|                         | Housewife                     | 59          | 78.7              |
|                         | Work from home                | 5           | 6.7               |
| Professional background | Healthcare                    | 4           | 5.3               |
|                         | Non - healthcare              | 71          | 94.7              |
| Residence               | Urban                         | 36          | 48.0              |
|                         | Rural                         | 39          | 52.0              |
| Income per annum (Lakh) | < 5                           | 24          | 32.0              |
|                         | 5- 10                         | 49          | 65.3              |
|                         | >10                           | 2           | 2.7               |
| Parity                  | Primi                         | 34          | 45.3              |
|                         | Multi                         | 41          | 54.7              |
| House help available    | Yes                           | 59          | 78.7              |
|                         | No                            | 16          | 21.3              |
| Type of family          | Nuclear                       | 24          | 32.0              |
|                         | Joint                         | 51          | 68.0              |



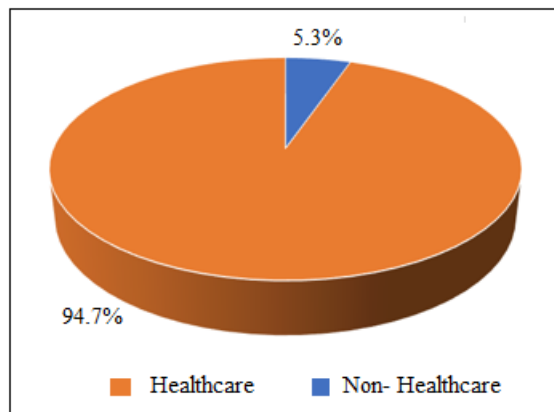
**Figure 1:** Illustrates that the highest number of mothers 37 (39.3%) were in the age group of 21 - 30 years. Additionally, 34 (45.3%) mothers were in the age group of 31 - 40 years, 2 (2.7 %) mothers were less than or equal to 20years and 2 (2.7%) mothers were in the age group of more than 40yrs



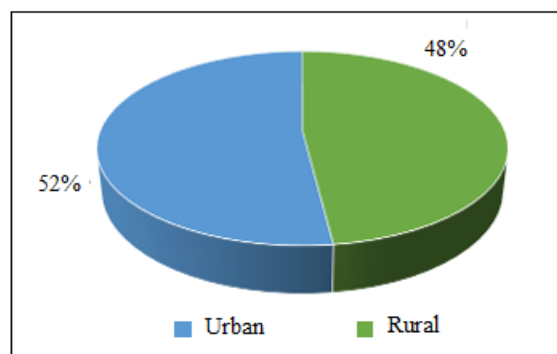
**Figure 2:** Shows that out of 75 mothers 34 (45.3%) were graduates, 26 (34.7%) were 12th pass, 12 (16%) were 10th pass or less and 3 (4%) were post graduates



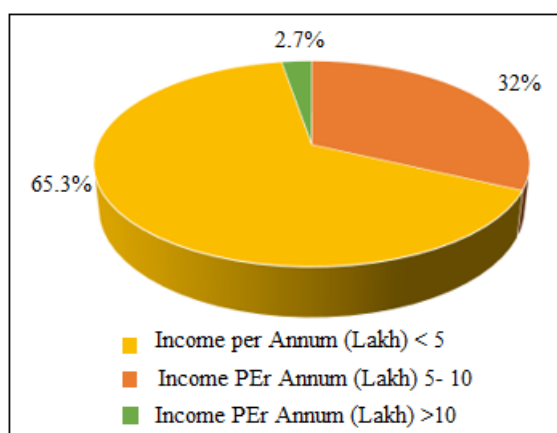
**Figure 3:** Shows that out of 75 mothers 59 (78.7%) were housewife, 11 (14.7%) were employed and 5 (6.7%) were work from home



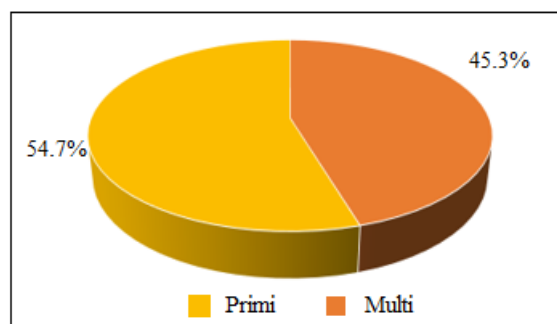
**Figure 4:** Shows that out of 75 mothers 71 (94.7%) were from non health care and 4 (5.31%) were from health care



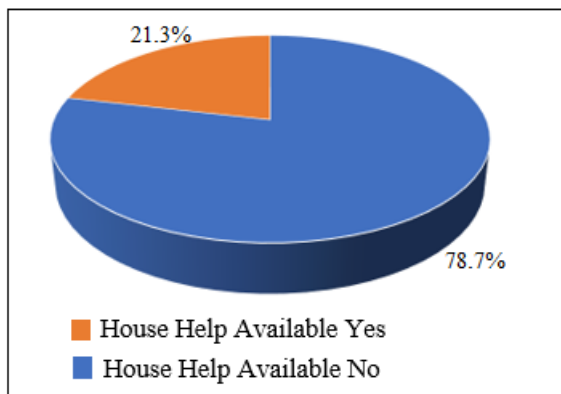
**Figure 5:** Shows that out of 75 postnatal mothers 39 (52%) belong to rural and 36 (48%) belong to urban.



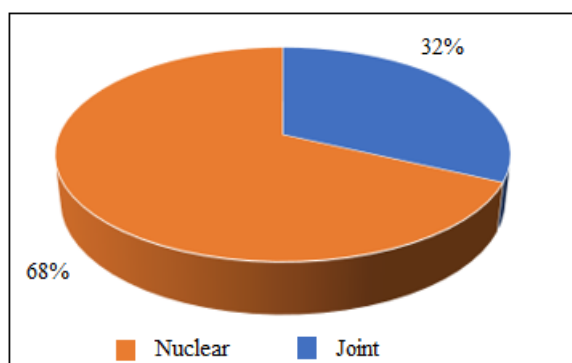
**Figure 6:** Shows that out of 75 postnatal mothers 49 (65.3%) comes under annual income of 5 - 10lpa, 24 (32%) comes under less than 5lpa and 2 (2.7%) comes under more than 10lpa



**Figure 7:** Shows out of 75 post natal mothers 42 (54.7%) were multipara and 34 (45.3%) were primigravida



**Figure 8:** Shows out of 75 post natal mothers 59 (78.7%) has house help availability and 16 (21.3%) didn't have house help availability



**Figure 9:** illustrates out of 75 post natal mothers 51 (68%) belong to joint family and 24 (32%) belong to nuclear family

**Table 2:** Assess the knowledge regarding exclusive breastfeeding among postnatal mothers in study group

| Knowledge score | No of cases | Percentage |
|-----------------|-------------|------------|
| 0- 2 (Poor)     | 29          | 38.7       |
| 3- 5 (Average)  | 26          | 34.7       |
| 6- 7 (Good)     | 20          | 26.6       |
| Total           | 75          | 100        |

Table 2: Illustrates that the highest number of postnatal mother 29 (38.7%) had poor knowledge on exclusive breastfeeding, 26 (34.7%) had average knowledge and 20 (27.6%) had good knowledge on exclusive breastfeeding.

**Table 3:** Assess the practice regarding exclusive breastfeeding among postnatal mothers in study group

| Practice score | No of cases | Percentage |
|----------------|-------------|------------|
| 0- 1 (Poor)    | 13          | 17.3       |
| 2- 3 (Average) | 45          | 60         |
| 4- 5 (Good)    | 17          | 22.7       |
| Total          | 75          | 100        |

Table 3: Illustrates that the highest number of postnatal mothers 45 (60%) followed average level of exclusive breastfeeding practice, 17 (22.7%) followed good breastfeeding practice and 13 (17.3%) followed poor breastfeeding practices.

**Table 4:** Assess the barriers regarding exclusive breastfeeding among postnatal mothers in study group

| Barrier score    | No of cases | Percentage |
|------------------|-------------|------------|
| 0 - 2 (High)     | 11          | 14.67      |
| 3 - 4 (Moderate) | 34          | 45.33      |
| 5 - 6 (Mild)     | 21          | 28         |
| 7 - 8 (no)       | 9           | 12         |
| Total            | 75          | 100        |

Table 4: Illustrates that out of 75. post natal mothers 34 (45.33%) had moderate barriers during exclusive breastfeeding, 21 (28%) mothers had mild barriers, 11 (14.67%) had high barriers during exclusive breastfeeding and 9 (12%) had no barriers during exclusive breastfeeding.

**Table 5:** Association between practice score with age in study group

| Age (Yrs)  | n  | Practice score |       | MW test Z Value | P Value |
|------------|----|----------------|-------|-----------------|---------|
|            |    | Mean           | SD    |                 |         |
| ≤30        | 39 | 2.51           | 1.073 | 0.33            | 0.74    |
| 31 & above | 36 | 2.56           | 1.054 |                 |         |

Table 5: Reveals that MW test analyzing the association between age and practice is 0.33, which reveals there is no significant relationship between age and practice

**Table 6:** Association between practice score with education level in study group

| Education level               | n  | Practice score |       | F Value | P Value |
|-------------------------------|----|----------------|-------|---------|---------|
|                               |    | Mean           | SD    |         |         |
| 10 <sup>th</sup> Pass or less | 12 | 2.08           | 1.165 | 1.42    | 0.25    |
| 12 <sup>th</sup> pass         | 26 | 2.69           | 1.158 |         |         |
| Graduation & above            | 37 | 2.57           | .929  |         |         |

Table 6: Reveals that MW test analyzing the association between age and practice is 1.42, which reveals there is no significant relationship between education level and practice

**Table 7:** Association between practice score with employment status in study group

| Employment status | n  | Practice score |       | F Value | P Value |
|-------------------|----|----------------|-------|---------|---------|
|                   |    | Mean           | SD    |         |         |
| Employed          | 11 | 3.18           | .874  | 5.31    | 0.007   |
| Housewife         | 59 | 2.34           | 1.044 |         |         |
| Work from home    | 5  | 3.40           | .548  |         |         |

Table 7: Reveals that MW test analyzing the association between employment status and practice is 5.31, which reveals there is no significant relationship between employment status and practice

**Table 8:** Association between practice score with professional background in study group

| Professional background | n  | Practice score |       | MW test Z Value | P Value |
|-------------------------|----|----------------|-------|-----------------|---------|
|                         |    | Mean           | SD    |                 |         |
| Healthcare              | 4  | 3.25           | 0.957 | 1.38            | 0.17    |
| Non - healthcare        | 71 | 2.49           | 1.054 |                 |         |

Table 8: Reveals that MW test analyzing the association between professional background and practice is 1.38 which reveals there is no significant relationship between professional background and practice

**Table 9:** Association between practice score with residence in study group

| Residence | n  | Practice score |       | MW test Z Value | P Value |
|-----------|----|----------------|-------|-----------------|---------|
|           |    | Mean           | SD    |                 |         |
| Urban     | 36 | 2.56           | 1.027 | 0.11            | 0.91    |
| Rural     | 39 | 2.51           | 1.097 |                 |         |

Table 9: Reveals that MW test analyzing the association between residence and practice is 0.11 which reveals there is no significant relationship between residence and practice

**Table 10:** Association between practice score with income per annum in study group

| Income per annum (Lakh) | n  | Practice score |       | MW test Z Value | P Value |
|-------------------------|----|----------------|-------|-----------------|---------|
|                         |    | Mean           | SD    |                 |         |
| < 5                     | 24 | 2.04           | 1.122 | 2.75            | 0.006   |
| 5 & above               | 51 | 2.76           | 0.951 |                 |         |

Table 10: Reveals that MW test analyzing the association between income per annum and practice is 2.75 which reveals there is no significant relationship between income per annum and practice

**Table 11:** Association between practice score with parity in study group

| Parity | n  | Practice score |       | MW test Z Value | P Value |
|--------|----|----------------|-------|-----------------|---------|
|        |    | Mean           | SD    |                 |         |
| Primi  | 34 | 2.44           | 1.106 | 0.78            | 0.44    |
| Multi  | 41 | 2.61           | 1.022 |                 |         |

Table 11: Reveals that MW test analyzing the association between parity and practice is 0.11 which reveals there is no significant relationship between parity and practice

**Table 12:** Association between practice score with house help available in study group

| House help available | n  | Practice score |       | MW test Z Value | P Value |
|----------------------|----|----------------|-------|-----------------|---------|
|                      |    | Mean           | SD    |                 |         |
| Yes                  | 59 | 2.75           | 0.993 | 3.19            | 0.001   |
| No                   | 16 | 1.75           | 0.931 |                 |         |

Table 12: Reveals that MW test analyzing the association between house help availability and practice is 3.19 which reveals there is significant relationship between availability of house help to the postnatal mother's and practice

**Table 13:** Association between practice score with type of family in study group

| Type of family | n  | Practice score |       | MW test Z Value | P Value |
|----------------|----|----------------|-------|-----------------|---------|
|                |    | Mean           | SD    |                 |         |
| Nuclear        | 24 | 2.96           | 0.999 | 2.38            | 0.018   |
| Joint          | 51 | 2.33           | 1.033 |                 |         |

Table 13: Reveals that MW test analyzing the association between type of family and practice is 2.38 which reveals there is no significant relationship between type of family and practice

**Table 14:** Correlation between knowledge, practice and barrier in study group

| Correlation between        | r Value | P Value |
|----------------------------|---------|---------|
| Knowledge & practice score | 0.479   | <0.0001 |
| Knowledge & barrier score  | 0.586   | <0.0001 |
| Practice & barrier score   | 0.492   | <0.0001 |

Table 14: illustrates a significant correlation between knowledge & practice score, knowledge and perceived barrier score, practice & barrier score with p value <0.0001

#### 4. Discussion

The current study aimed at investigating the knowledge, practices and perceived barriers of breastfeeding among postnatal women in the Zonal Hospital of West Bengal. Although WHO's, Global and National infant and young child feeding guidelines recommend that all newborns should start breast feeding immediately after birth, ideally within the first hour, findings of the current study revealed that, highest number of postnatal mothers 38.7% had poor knowledge on exclusive breast feeding, 34.7% had average knowledge and only 27.6% had good knowledge on exclusive breast feeding. These findings align with a community based study conducted by Kishore et al<sup>10</sup> in Panchkula district of Haryana revealed only 10% of mothers exclusively breastfed their infants till 6 months of age due to lack of proper knowledge.

In our research, the most common barriers to optimal exclusive breast feeding practices were inadequate milk supply (62%) and insufficient family support (20%). Similar to a study by Charantimath U et al<sup>7</sup>, conducted in Belgavi region of Karnataka.

In the same context, Hala et al<sup>11</sup>. conducted a study in Riyad and found that embarrassment from lactation in public places and working were the common identified barriers by the women (represented as 83.2% & 73.5%). The same conclusion had been reached by Alfaleh<sup>12</sup> who found that, (41%) of the participants attended breastfeeding awareness programs but, diffusing artificial milk, duration of vacation after delivery and deficient knowledge were the barriers for breastfeeding.

In our research 52% postnatal mothers belonged to rural areas and 48% belonged to urban areas and 22.7% had followed good breast feeding practices and 60% followed average level of breast feeding practice. These findings align with previous research conducted by Rastogi S et al<sup>5</sup> who observed in Gujrat that in urban areas, 7.5% infants began breast feeding more than one hour after birth, whereas in rural areas, 42.5% under five children started breast feeding after the same time period.

#### 5. Conclusion

According to postnatal mothers there is inadequate breast milk and since the baby is not getting enough feeds they are compensating with formula feeds. In today's modern world there is lot of technological development and medical advancement but still mother's should not forget that Nature has not stopped its basic physiology. Women lack confidence, their pain threshold has reduced they lack motivation and "patience". This study is a step to identify the lacuna's and emphasize the need for intervention programs to reduce lactation failures and promote exclusive breast feeding.

## 6. Recommendations

The followings strategies are recommended to promote and encourage breastfeeding as well as improve the rates of exclusive breastfeeding:

- Mothers need to be supported from family to practice exclusive breastfeeding.
- Importance of antenatal follow up should be emphasized.
- Health education about importance of exclusive breastfeeding should be part of antenatal care and nursing management to increase its perceived value.
- Postnatal follow up of mothers to ensure their breastfeeding practice and trying to solve any problems faced by them or overcome perceived barriers.

### Ethical Considerations

The study was conducted after being reviewed and approved by the Commandant of Zonal Hospital and the Research Committee. Then the researchers explained the aim and nature of the study for each woman that met the criteria for inclusion to gain her oral and written consent to participate in the current study. Written consent was also obtained from the Subjects.

### Limitations

A small sample size was the major study limitations that may restrict the generalization of the study findings.

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