



## Analysis Of Predisposing Factors Affecting Exclusive Breastfeeding On Working Mothers In Pekanbaru City

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### Abstract

**Introduction:** Working mothers play a significant role in decreasing the rate of exclusive breastfeeding in both developed and developing countries. Several factors that can obstruct exclusive breastfeeding for working mothers consist of predisposing factors (knowledge, age, parity). Exclusive breastfeeding provides essential nutrients and health benefits for infants, yet many working mothers face challenges in maintaining this practice due to various factors, including workplace conditions, lack of breastfeeding support, and limited knowledge. Understanding the influence of predisposing factors on exclusive breastfeeding is crucial for developing effective interventions and policies to support working mothers in achieving optimal breastfeeding practices. The aim of this study is to examine the influence of predisposing factors on exclusive breastfeeding practices among working mothers.

**Method:** This research is case-control design. There are 84 samples with consecutive sampling technique that meet the inclusion criteria, namely mothers who have babies aged 6-12 months who work as State Civil. Data collection methods used questionnaires.

**Result:** Analysis shows that knowledge ( $p=0.001$ ), affected exclusive breastfeeding for working mothers ( $p<0.050$ ), and there was no effect of age ( $p=1,000$ ) and parity ( $p=0.662$ ).

**Conclusion:** This study concludes that knowledge significantly influences exclusive breastfeeding practices among working mothers, while age and parity do not have a significant effect.

**Keywords:** exclusive breastfeeding, predisposing factors, working mothers

## Introduction

Mother's Milk is the most perfect food source for infants aged 0-6 months, economical, safe, clean and contains antibodies that help protect babies from several diseases in childhood (WHO, 2020). Babies who are breastfed in accordance with the gold standard of Pemberian Makanan Bayi dan Anak (PMBA) which consist of Early Initiation of Breastfeeding, Exclusive Breastfeeding, and complementary feeding have a higher IQ and better performance so they have a job and a decent income, just as exclusive breastfeeding will provide protection to babies because breast milk has nutrients and antibodies that increase the body's resistance to both infectious and non-infectious diseases (Victoria, CG, 2016).

The coverage of exclusive breastfeeding in Indonesia in 2019 was 67.74% (BPS, 2019). The achievement of exclusive breastfeeding in Riau Province in 2019 was 60.71%, a rapid increase compared to 2018 (36.29%) (3). Meanwhile, in Pekanbaru City, the achievement of exclusive breastfeeding in 2018 was 47.37%. From these data concluded that exclusive breastfeeding in Pekanbaru City is still below the target (Dinkes, 2018).

Failure to provide exclusive breastfeeding is caused by various things, including educational factors, mothers having work, maternal health, failure to give IMD, prelacteal feeding, misinformation about breastfeeding, as well as myths that have developed from generation to generation. Based on several other studies conducted by Febrianti, factors that influence exclusive breastfeeding include knowledge, attitudes, family support, and support from village health workers (Febrianti R, Ernawati D, 2020).

Another research in Wonosobo Regency shows that working mothers tend not to give exclusive breastfeeding to their babies compared to housewives mothers or mothers who do not have work ( Puspita DE, Purwati Y, 2016). The factors that hinder the success of breastfeeding for working mothers are a short time off from work, the mother's low knowledge, the young age of the mother, previous experience of giving birth and breastfeeding (predisposing factors) (Muyassaroh Y,et all, 2018).

As the capital city of Riau Province, the development of Pekanbaru City has experienced a rapid increase, both from an increase in population, an increase in physical and non-physical development, and including the number of regional and central government offices in Riau Province, centered in Pekanbaru City. The type of jobs distribution in Riau Province in 2020 dominated by laborers, employees, and employees, (43.76%), and then followed by independent businesses (19.34%), family businesses (12.39%) to the least, namely non-agricultural casual workers (2,65,%) (Maulidiah S, 2015.). In terms of the number of women in the workforce tends to increase from year to year. The number of civil servants in Pekanbaru City is 5,231 female employees and 2,222 male employees. This shows that the participation rate of women workers in Pekanbaru City in the government sector is greater than that of men (BKPSDM, 2018).

## Objective

The purpose of this study is to identify the factors influencing exclusive breastfeeding practices among working mothers in Pekanbaru City. This research aims to analyze various predisposing factors, including maternal knowledge, age and parity that may affect a mother's ability to exclusively breastfeed while working. The findings of this study are expected to provide valuable insights for developing effective interventions and policies to support working mothers in maintaining exclusive breastfeeding for their infants.

## Method

This review is quantitative with a case-control design, which looks at the two groups between the case (non-exclusive breastfeeding) and the control group (exclusive breastfeeding). The whole sample of moms with children 6-12 months, working as state civil servants in the working area of the Ministry of Religion of Pekanbaru City and the number of tests is 42 individuals for each group. The procedure utilized is continuous inspecting, and the examination utilized in bivariate investigation utilizing chi-square and multivariate examination utilizing multiple logistic regression.

## Result and Discussion

To decide the variables that impact exclusive breastfeeding for working moms in this review were dissected utilizing the Chi-Square test by checking out the odds Ratio (OR). The examination information included numeric and ordinal classifications with a pvalue<0.05. The consequences of the investigation of the connection between the elements that impact exclusive breastfeeding for working moms in Pekanbaru City are recorded in table 1 underneath.

**Table 1.** General Characteristics of Respondents

| Characteristics   | Case<br>n=42 | Control<br>n=42 | Total |
|---|--------------|-----------------|-------|
| Workplace   |              |                 |       |
| Kantor Kemenag  | 2            | 1               | 3     |
| KUA   | 3            | 4               | 7     |
| Madrasah  | 37           | 37              | 74    |
| Age of Last Child (months)                                  |              |                 |       |
| 6-9   | 25           | 31              | 56    |
| 10-12   | 17           | 11              | 28    |
| Introduction of Food Other than<br>Breast Milk (< 6 months) |              |                 |       |
| Formula Milk  | 34           | -               | 34    |
| Formula Milk and Fruit<br>Juice/Honey                       | 8            | -               | 8     |
| Type of Delivery  |              |                 |       |
| Normal  | 18           | 26              | 44    |
| Cesarean Section  | 24           | 16              | 40    |

Based on Table 1, the total number of respondents in this study was 84 working mothers, with each group consisting of 42 mothers in the non-exclusive breastfeeding group (case group) and 42 mothers in the exclusive breastfeeding group (control group). This study was predominantly composed of mothers working as teachers and educational staff in Madrasahs in Pekanbaru City, totaling 74 individuals (88.1%). The majority of working mothers had children aged 6-9 months, accounting for 56 respondents (66.7%). In the case group, all working mothers provided formula milk for their children, with some also supplementing with fruit juice and honey water, as shown in the appendix. The mode of delivery among respondents was relatively evenly distributed, with the highest proportion being normal deliveries in the control group, totaling 44 mothers (52.4%).

**Table 2.** Frequency Distribution of Exclusive Breastfeeding Among Working Mothers

|                                  | Variabel                                     | Total<br>(n=84) | Percentage |
|----------------------------------|--|-----------------|------------|
| <b>Dependent<br/>Variabels</b>   | Exclusive Breastfeeding Practice             |                 |            |
|                                  | Exclusive breastfeeding                      | 42              | 50         |
|                                  | Non-Exclusive breastfeeding                  | 42              | 50         |
| <b>Independent<br/>Variabels</b> | <b>Predisposing Factors</b>                  |                 |            |
|                                  | Knowledges                                   |                 |            |
|                                  | poor knowledge                               | 37              | 40         |
|                                  | good knowledge                               | 47              | 56         |
|                                  | Age Group                                    |                 |            |
|                                  | Early adulthood (25-35 years old)            | 63              | 75         |
|                                  | Late adulthood ( $\geq 36$ years old)        | 21              | 25         |
|                                  | Parity                                       |                 |            |
|                                  | Primipara (first-time mothers)               | 39              | 46,4       |
|                                  | Multipara (mothers with more than one child) | 45              | 53,6       |

Based on Table 2, the number of respondents for each variable in the predisposing factors related to exclusive breastfeeding has been identified. In the predisposing factors, the majority of respondents had a good level of knowledge (57.1%), the age range was predominantly early adulthood, with 63 respondents (75%), and most were multiparous mothers (53.6%).

**Table 3.** Bivariate analysis of factors that influence exclusive breastfeeding for working mothers in Pekanbaru City

| <i>Variable</i>               | <b>Non EBF (%)</b> | <b>EBF (%)</b> | <b>p* Score</b> | <b>OR (CI 95%)</b>  |
|-------------------------------|--------------------|----------------|-----------------|---------------------|
| <b>Predisposing factors</b>   |                    |                |                 |                     |
| <b>Knowledge</b>              |                    |                | 0,001*          | 5.76 (2.228-14.894) |
| Less                          | 27 (64,3)          | 10 (23,8)      |                 |                     |
| Good                          | 15 (35,7)          | 32 (76,2)      |                 |                     |
| <b>Age</b>                    |                    |                |                 | 1.135 (0.423-3.052) |
| Early adulthood (20-35 years) | 32 (76,2)          | 31 (73,8)      | 1,000*          |                     |
| Late adulthood (≥ 35 years)   | 10 (23,8)          | 11 (26,2)      |                 |                     |
| <b>Parity</b>                 |                    |                | 0,662           | 1.333 (0.564-3.150) |
| Primipara                     | 21 (50)            | 18 (42,9)      |                 |                     |
| Multipara                     | 21 (50)            | 24 (57,1)      |                 |                     |

Description : - \*) based on chi-square test                      - OR (CI 95%) = Odds Ratio dan Confidence Interval 95%

Based on table 3, from the predisposing factors, only the knowledge factor has a significant effect on exclusive breastfeeding for working mothers with a p-value <0.05 (0.001) where out of 37 mothers with a low level of knowledge, as many as 27 people (64.3%) gave non-exclusive breastfeeding to their children and 10 people (23.8%) gave exclusive breastfeeding.

**The Effect Of Knowledge On Exclusive Breastfeeding For Working Mothers.**

The analysis reveals a significant relationship between maternal knowledge and exclusive breastfeeding practices (p = 0.001, OR = 5.76, CI: 2.228-14.894). Among mothers with less knowledge, 64.3% practiced non-exclusive breastfeeding, while only 35.7% managed to exclusively breastfeed. In contrast, 76.2% of mothers with good knowledge successfully practiced exclusive breastfeeding. The odds ratio (OR = 5.76) indicates that mothers with good knowledge are 5.76 times more likely to provide exclusive breastfeeding compared to those with less knowledge. This finding underscores the critical role of breastfeeding education in promoting EBF. Proper knowledge about breastfeeding benefits, techniques, and overcoming common breastfeeding challenges likely enhances mothers’ confidence and commitment to sustaining EBF despite work-related challenges..

Other studies that are in the same line also show that there is a positive relationship between knowledge and exclusive breastfeeding and statistically significant (p= 0.002). Mothers with less knowledge do not understand the benefits of breastfeeding; breastfeeding techniques and methods of storing breast milk are some of the obstacles to the continuity of breastfeeding (Astuti A, et all., 2020). Some mothers give formula milk because a little breast milk comes out and the child still has difficulty breastfeeding so that the child will cry if left alone. Lack of confidence and understanding of the ability to produce breast milk for the needs of their

children caused mothers to give additional milk via bottles. So that formula feeding is one of the reasons why mothers do not give exclusive breastfeeding to their children. This is supported by the answers to the questionnaire by mothers who do not understand that the nutritional content of non-breast milk doesn't fulfill the child's needs, and it's difficult to absorb by the child's digestion (Setianingrum, DR, et al, 2018).

### **The Effect Of Age On Exclusive Breastfeeding For Working Mothers.**

Maternal age did not show a statistically significant association with exclusive breastfeeding ( $p = 1.000$ , OR = 1.135, CI: 0.423-3.052). In the early adulthood group (20-35 years old), 76.2% of mothers practiced non-exclusive breastfeeding, while 73.8% maintained exclusive breastfeeding. Similarly, in the late adulthood group ( $\geq 35$  years old), 23.8% practiced non-exclusive breastfeeding, while 26.2% managed to sustain exclusive breastfeeding. The small OR value (1.135) suggests that age does not have a meaningful impact on the likelihood of exclusive breastfeeding. This result aligns with studies indicating that while age may influence maternal confidence and experience, other factors such as workplace support and knowledge play a more significant role in breastfeeding success.

This research is in line with the research in Banyuasin. In this study, there was no relationship between respondents' age and exclusive breastfeeding for working mothers at SD Banyuasin Regency with a p-value 0.257 ( $p > 0.050$ ). Another study that is also in line is carried out in Sleman Regency with the test results known that the probability value (p-value) is 1,000, the p-value  $> 0.05$  which means  $H_0$  is accepted, so it can be stated that there is no significant relationship between maternal age and exclusive breastfeeding. (Intami E, et al, 2018 dan , Untari J, 2017)

### **The Effect Of Parity On Exclusive Breastfeeding For Working Mothers.**

Parity, or the number of times a mother has given birth, also did not show a significant relationship with exclusive breastfeeding ( $p = 0.662$ , OR = 1.333, CI: 0.564-3.150). Among primiparous mothers (first-time mothers), 50% practiced non-exclusive breastfeeding, and 42.9% practiced exclusive breastfeeding. Among multiparous mothers (those with two or more children), 50% practiced non-exclusive breastfeeding, while 57.1% sustained exclusive breastfeeding. The odds ratio (1.333) indicates only a slight, non-significant tendency for multiparous mothers to provide exclusive breastfeeding. While previous childbirth experiences may contribute to better breastfeeding practices, other external factors, such as work demands, support systems, and personal knowledge, likely play a more dominant role in determining breastfeeding success..

This study is also in line with research in Depok that age and parity are not related to breast milk production. This is also in line with research in Serang which showed that there was no relationship between parity and breastfeeding with p-value of 0,478. This is likely to happen because even though the parity of the respondents is good, mothers still cannot exclusively

breastfeed because of the busyness and condition of their bodies (Marwiyah N, Khaerawati T, 2020 dan Nurliawati E, 2010).

These results are different from the results of the study in Yogyakarta, which got a p-value  $<0,05$  and it was concluded that there was a significant relationship between parity and exclusive breastfeeding. The highest proportion of mothers who gave exclusive breastfeeding were multiparous mothers, and the highest proportion of mothers who did not exclusively breastfeed was primiparous mothers. Mothers who have experience with breastfeeding will be more interested in giving exclusive breastfeeding to their children because knowledge about breastfeeding is increasing according to the results of statistical tests (Azzahra K, et al, 2019).

Although in theory, parity affects breastfeeding behavior, based on the analysis in this study, statistically it shows that there is no significant relationship between parity and exclusive breastfeeding. Other factors influence working mothers to provide exclusive and non-exclusive breastfeeding to their babies, such as family support, knowledge, implementation of IMD, and others mentioned in this study.

## Conclusion

The findings suggest that maternal knowledge is the most influential factor in exclusive breastfeeding practices among working mothers, as evidenced by its significant p-value and high odds ratio. Age and parity, on the other hand, did not show a significant impact on EBF, indicating that other factors beyond demographic characteristics might be more critical. These results emphasize the need for targeted interventions, such as breastfeeding education programs and workplace breastfeeding support, to enhance maternal knowledge and promote higher exclusive breastfeeding rates among working mothers.

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