ORIGINAL ARTICLE

The Image of Age and Occupation Toward Exclusive Breastfeeding Success in the Working Area of Turi Primary Health Center, Sleman District, Yogyakarta

FITRIANA YUNI PERMANA SARI[1], DHESI ARI ASTUTI[2]
Faculty of Health Sciences, Universitas 'Aisyiyah Yogyakarta, West Ringroad 63, Mlangi Street, NogotirtoGampingSleman 55292, Yogyakarta, Indonesia
[2]Faculty of Health Sciences, Universitas 'Aisyiyah Yogyakarta, West Ringroad 63, Mlangi Street, NogotirtoGampingSleman 55292, Yogyakarta, Indonesia
Correspondence to FitrianaYuniPemana, Email:fitrianayps@gmail.com

ABSTRACT

Background: Exclusive breastfeeding is the provision of breast milk only for infants aged 0-6 months old without other foods or liquids except for drugs, vitamins, and minerals. The working mother affects that the mother cannot fully care for her baby. While age also affects the quantity of breast milk. Exclusive breastfeeding can be assessed for effectiveness from the Health Technology Assessment (HTA) aspect. This study aims to determine the relationship between age and working mothers with the success of exclusive breastfeeding in the working area of Turi Primary Health Center, Sleman District, Yogyakarta in 2018.

Method: This research was an analytical survey with a cross-sectional approach. Samples of 53 mothers aged 7-12 months old were taken with the Slovin formula and purposive sampling technique that met the inclusion criteria. The instrument used six questions from the Indonesian Demographic and Health Survey (IDHS) questionnaire about the success of Exclusive Breastfeeding, which tested its validity and reliability. Data were analyzed by Chi-Square and Regression Logistic tests.

Results: Results of *age* (ρ = 0.021), (OR = 7.95), 95% CI (1.34-46.89) and *work* (ρ = 0.010), (OR = 6.04), 95% CI (1.68-21,71) showed there was a correlation between 2 variables. The results of age (p = 0.049), (Exp β = 6.822) and occupation(p = 0.013), (Exp β = 5,500) with the success of ExclusiveBreastfeeding.

Conclusion: There was a relationship between age and occupation toward the success of Exclusive Breastfeeding. The mother's age was the most influential to exclusive breastfeeding, so it was better for breastfeeding mothers at the age of 20 years or more.

Keywords: Age, Working Mother, Exclusive Breastfeeding

INTRODUCTION

The Government creates the SDGs (Sustainable Development Goals), intending to end all forms of poverty in all countries, ending all forms of hunger, achieving food security, improving nutrition, and promoting sustainable agriculture. Furthermore, it aims to guarantee a healthy life and encourage prosperity for all people in the world of all ages as an effort in joint development until 2030 [1]. The Exclusive Breastfeeding coverage in Yogyakarta decreased from 54.9% to 48% in 2015. Sleman Regency is the highest Exclusive. Breastfeeding coverage area from other districts, which is 64.4%. Preliminary studies from the Health Office of Yogyakarta Special Province and the Health Office of Sleman District found that Turi Primary Health Center was the highest primary health center with exclusive breastfeeding coverage of 93.3% of the 13 primary health center located in the working area of Sleman District Health Office [2]. Exclusive breastfeeding is the provision of breast milk only for infants aged 0-6 months old without food or other liquids except for drugs, vitamins, and minerals. A study by Dun-Dery and Laar (2016) shows that working mothers influence exclusive breastfeeding failure [3].

Besides study by Mulusew Andualem Asemahagn (2016) states that the age factor also affects the success of exclusive breastfeeding because the increasing maternal age will decrease maternal reproductive and affect the quantity of breast milk [4]. Meanwhile, according to Roesli (2009), with the right knowledge about breastfeeding, the provision of milking equipment, and the work environment's support, a working mother can continue to provide exclusively breastfeeding [5]. Exclusive breastfeeding can be assessed for effectiveness from the Health Technology Assessment (HTA) aspect. This study aims to determine the correlation between age and mother working with the success of exclusive breastfeeding.

METHOD

Population and Sample: This study was an analytical survey with a cross-sectional approach. The study population was 61 respondents who were then sampled with the Slovin formula and 53 respondents. The sampling technique used the purposive sampling technique by fulfilling the inclusion and exclusion criteria. This study's inclusion criteria were mothers who had infants aged 7-12 months old and breastfed their babies. In contrast, the exclusion criteria were mothers who were not willing to be sifted through.

Place and Time: The research was carried out in the Work Area of Turi Primary Health Center Sleman District, Yogyakarta starting from 26 February 2018 until 6 August 2018. This study's variables were Exclusive Breastfeeding's success as the dependent variable and age and occupation as the independent variable. The confounding variables in this study had been controlled. The sources of data in this study were primary and secondary data. The secondary

data were obtained when preparing the proposal, and the primary data were obtained during the study.

Research Ethics: The researcher conducted a preliminary study by taking secondary data through a reference book from the Health Office of Yogyakarta Special Province and continued making a research proposal. Then the researcher applied to the 'Aisyiyah University ethics committee. The ethics commission approved to continue the research with letter number 290 / KEP-UNISA / IV / 2018. The researchers continued the research by collecting primary data from participants' filling in informed consent and questionnaires door to door. In this study, the instrument was in the form of questionnaires as many as six questions from the Indonesian Demographic and Health Survey questionnaire (IDHS) about the success of Exclusive Breastfeeding, tested for its validity and reliability. Data processing techniques were done by editing, coding, entry, and cleaning thoroughly. The data was then analyzed using Statistical Product and Service Solutions (SPSS) version. 22 for Windows.

Data analysis was performed univariate for frequency distribution, Chi-square test for bivariate, and Regression logistic test for multivariate to determine the correlation between age and mother working with the success of Exclusive Breastfeeding. While the Health Technology Assessment (HTA) analysis, researchers looked for journal references related to the aspects of HTA about Exclusive Breastfeeding.

RESULTS

The characteristics of exclusive breastfeeding respondents showed that most respondents had succeeded in giving exclusive breastfeeding, namely 37 respondents (69.8%). The respondents' age characteristics were almost entirely aged 20 years or more, namely 46 respondents (86.8%). Besides, the work's characteristics obtained results that most of the respondents with no working status were 35 respondents (66%).

Table 1: Age Correlation with the Success of Exclusive Breastfeeding in the Working Area of Turi Primary Health Center Sleman District Yogyakarta in 2018.

Age	**Exclusive Breastfeeding**		P-value
	Failed	**Succeed**	
< 20 years	5	2	0.021
20 years or more	11	35	
Total	16	37	

Table 1 shows that most of the respondents who succeeded in Exclusive Breastfeeding were aged 20 years or more than 35 respondents (66%). Meanwhile, a small percentage of respondents who failed in exclusive breastfeeding were aged 20 years old or more than 11 respondents (20.8%). The chi-square test results show p-value 0.021 <0.05 OR = 7.95, and 95% CI (1.34-47.89), indicating an age correlation with the success of Exclusive Breastfeeding in the Working Area of Turi Primary Health Center Sleman District Yogyakarta in 2018.

Table 2 shows that most of the respondents who succeeded in exclusive breastfeeding were mothers who did not work as many as 29 respondents (54.7%). Meanwhile, the small percentage of respondents who failed in exclusive breastfeeding worked mothers as many as ten respondents (18.9%). Chi-Square, p-value test results, were 0.010 <0.05, OR = 6.04, and 95% CI (1.68-21.71) showed a relationship between mothers occupation with the success of Exclusive Breastfeeding in the Working Area of Turi Health Center Sleman District Yogyakarta Year 2018.

Table 2: Relationship of Working Mother with the Success of Exclusive Breastfeeding in the Working Area of Turi Health Center Sleman District Yogyakarta in 2018.

Work Status	**Exclusive Breastfeeding**		**P-value**
	Failed	**Succeed**	
Working	10	8	0.010
Not Working	6	28	
Total	16	37	

Table 3: Correlation of Age and Working Mothers with Exclusive Breastfeeding Success in the Working Area of Turi Primary Health Center Sleman District Yogyakarta in 2018.

The Variable	**P-value**	**Exp β**
Age	0.049	6.822
Occupation	0,013	5.500

Table 3 shows that the two variables studied had a significant relationship with exclusive breastfeeding because these two variables have a p-value <0.05. Age had p-value 0.049 and Exp β 6,822, and occupation had p-value 0,013 and Exp β 5,500. From these two variables, the age variable had a more significant p-value than work. This shows that age was the most significant variable in the success of Exclusive Breastfeeding. The age of> 20 years old having Exp β 6.822 shows that the mother's age had an opportunity of 6 or 7 times more remarkable for the success of Exclusive Breastfeeding than mothers working with the success of Exclusive Breastfeeding.

DISCUSSION

The data analysis results of all respondents' characteristics showed that most of the respondents who succeeded in exclusive breastfeeding were aged 20 years or more, as many as 35 respondents (66%). The analysis of maternal age with the chi-square test stated a correlation between maternal age and the success of Exclusive Breastfeeding in the working area of Turi Primary Health Center, Sleman District, Yogyakarta in 2018. The analysis's value showed that age less than 20 years had seven times more risk did not succeed Exclusive Breastfeeding. In 2018, the analysis's value showed that mothers who worked six times more at risk were unsuccessful. These results support Apriyanti's theory statement, which states that working mothers cannot fully connect with their babies. As a result, mothers tend to give formula milk and are given through bottles, causing breastfeeding frequency to decrease and decrease milk production. This situation causes the mother to stop breastfeeding. Thus, a working mother is likely to breastfeed her baby [6] exclusively.

In line with Nkrumah's research, there was a significant correlation between exclusive breastfeeding and working mothers. This study compares working mothers in offices and non-offices. From these results, mothers who

worked at the exclusive breastfeeding office were lower than mothers who worked non-office. This study compared mothers who are only housewives and mothers working outside of domestic work. This study stated that mothers who did not work were more successful at exclusive breastfeeding than those who worked [7]. The Dun-Dery and Laar research show that maternal awareness in breastfeeding is exclusively high but cannot fulfill the exclusive breastfeeding coverage because the mother works [3]. In connection with this study, the failure of exclusive breastfeeding to working mothers is because if left to work, the baby has been cared for by the grandmother (family) to provide food other than breast milk. Danso's research shows that working mothers have difficulty giving exclusive breastfeeding because they have to divide their time with their work; besides, family members' influence also influences exclusive breastfeeding practice [8].

Family support (husband) is significant in successful breastfeeding, especially for exclusive breastfeeding. The family's emotional support is significant in the face of external pressure that doubts the need for breastfeeding. The family becomes the first fortress when the mother gets temptations from the closest family, parents, or in-laws. The family must also play a role in the pregnancy examination, provide nutritious food for the mother, and ease the wife's work. Healthy maternal conditions and a pleasant atmosphere will improve maternal physical stability so that breastfeeding production is better. The hypothesis results using Regression Binary Logistic that was tested simultaneously revealed the result that there was a correlation between age and mother working with the success of exclusive breastfeeding from the three variables. The value between the three states that the most significant relationship with exclusive breastfeeding is the age variable.

Bayu Kurniawan's research states that the sociodemographic factors that have a significant relationship with mothers' success giving exclusive breastfeeding are the mother's age and mother's work status. From the results of this study, both factors, namely age and work status, have been investigated to impact Exclusive Breastfeeding's success [9]. This justifies journals. The theory explains that age 20 years or more can be one factor in Exclusive Breastfeeding's success. The theory follows the research results that state a correlation between age and success of Exclusive Breastfeeding. Another theory put forward by Lawrence Green in Notoatmojo 2003 states that the factors that influence Exclusive Breastfeeding's success are predisposition factors, one of which is working and supporting factors, one of which is age [10]. Strengthened by the results of statistical tests with chi-square strengthens the theory that the more age, the level of maturity and strength of a person will be more mature. A healthy reproductive period of safe age for pregnancy, childbirth, and breastfeeding is 20-35. If a pregnant woman, childbirth, and breastfeeding according to the reproductive period will be very good and supportive in giving exclusive breastfeeding. Age less than 20 years is considered still immature physically, mentally, and psychologically in the face of pregnancy, childbirth, and breastfeeding.

In line with the Razali study, which had the results of the significance test using Shapiro Wilk, it was found that there was an influence between maternal age and breastfeeding status. In contrast, the significance test with chi-square showed a significant influence between maternal age and success exclusive breastfeeding [11]. According to Boccolini CS, 67 articles were selected through 20 cross-sectional studies and seven cohort studies between 1998 and 2010 consisting of 77,866 children. The results obtained are 36 factors associated with exclusive breastfeeding that are often associated with distal factors: residence, maternal age, education, and proximal factors: maternal labor, child age, use of pacifiers, and primary health care financing. If associated with this study, age variables have a relationship with the success of exclusive breastfeeding [12].

The results of the analysis of the status of the working mother with the chi-square test also stated that there was a correlation between the status of the mother working with the success of Exclusive Breastfeeding in the working area of Turi Primary Health Center, Sleman District, Yogyakarta and ongoing theories about factors that can influence the success of Exclusive Breastfeeding. The journal above stated that the older or the more the mother's age, the higher the frequency of exclusive breastfeeding failure. This study added that maternal age less than 20 years can also reduce the frequency of exclusive breastfeeding success. This journal's working mothers' status has a significant relationship to mothers' success in providing exclusive breastfeeding. These results indicate that mothers who work increase the frequency of failure of exclusive breastfeeding.

Strengthened by the statement that mothers who work face some constraints in allocating time, the quality of togetherness with the baby, workload, stress, and the mother's belief to provide exclusive breastfeeding. Associated with this study's results also working status variables increase failure in the success of Exclusive Breastfeeding. Britton's stated that exclusive breastfeeding had provided many benefits. The benefits discussed in the journal can be linked to several domains of Health Technology Assessment (HTA) analysis, namely the safety aspect that states that exclusive breastfeeding can provide a good quality of life. Clinical effectiveness states that Exclusive Breastfeeding reduces neonatal disease, creates bounding attachments, and reduces infant mortality [13]. Cost aspects and economic evaluation state that with exclusive breastfeeding, the need for baby milk is cheaper and more effective. The ethical aspect states that with trained personnel, support from health workers, and exclusive breastfeeding counselors, exclusive breastfeeding can be fulfilled in duration, quantity, and quality. Whereas from the legal aspect, according to Article 128 of Law No. 36 of 2009 concerning Health also requires giving exclusive breastfeeding for six months supported by family and government[14]. The study's limitation was the study area's distance from one research area to another research area to take a more in-depth study.

CONCLUSION

Based on the statistical tests of age correlation research and working mothers with Exclusive Breastfeeding's

success in the Work Area of Turi Primary Health Center Sleman District Yogyakarta in 2018 had a significant value that Ha was accepted and Ho was rejected. It was concluded that the age of 20 years or more had the most significant correlation with breastfeeding success. Age of 20 years or more, had a chance of 6 or 7 times greater success of exclusive breastfeeding than working mothers. The study results are expected that mothers with exclusive breastfeeding programs can prepare from all aspects, especially breastfeeding. Besides, this research is expected to be used as literature in education and consideration to maintain or increase Exclusive Breastfeeding success. Besides, the next researcher expects to improve the research results by conducting a more in-depth study.

Author Agreement: This paper is the original research of Fitriana Yuni Permana Sari and Dhesi Ari Astuti. All authors have seen and agreed manuscript submitted. The authors comply with copyright provisions. This paper has never been published or sent for publication at another place.

REFERENCES

[1] W. H. Organization, *World Health Statistics 2016: Monitoring Health for the SDGs Sustainable Development Goals*. World Health Organization, 2016.

[2] Suryanto, V. Plummer, and M. Boyle, “Healthcare System in Indonesia,” *Hosp. Top.*, vol. 95, no. 4, pp. 82–89, 2017.

[3] E. J. Dun-Dery and A. K. Laar, “Exclusive Breastfeeding Among City-Dwelling Professional Working Mothers in Ghana,” *Int. Breastfeed. J.*, vol. 11, no. 1, p. 23, 2016.

[4] M. A. Asemahagn, “Determinants of Exclusive Breastfeeding Practices Among Mothers in Azezo District, Northwest Ethiopia,” *Int. Breastfeed. J.*, vol. 11, no. 1, p. 22, 2016.

[5] M. Jessri *et al.*, “Predictors of Exclusive Breastfeeding: Observations from the Alberta Pregnancy Outcomes and Nutrition (APrON) Study,” *BMC Pediatr.*, vol. 13, no. 1, p. 77, 2013.

[6] R. A. Apriyanti, F. A. Arini, and I. D. Puspita, “Correlation of Knowledge, Attitudes, and Behaviors of a Mother about Breastfeeding with Nutritional Status of Children Aged 6-23 of Sukmajaya Health Center, Depok City,” *Nutr. J. Gizi, Pangan dan Apl.*, vol. 2, no. 1, pp. 10–17, 2018.

[7] J. Nkrumah, “Maternal Work and Exclusive Breastfeeding Practice: a Community Based Cross-Sectional Study in Efutu Municipal, Ghana,” *Int. Breastfeed. J.*, vol. 12, no. 1, p. 10, Dec. 2016.

[8] J. Danso, “Examining the Practice of Exclusive Breastfeeding Among Professional Working Mothers in Kumasi Metropolis of Ghana,” *Int. J. Nurs.*, vol. 1, no. 1, pp. 11–24, 2014.

[9] B. Kurniawan, “Determinants of the Successful of Exclusive Breastfeeding,” *J. Kedokt. Brawijaya*, vol. 27, no. 4, pp. 236–240, 2013.

[10] L. W. Green, M. W. Kreuter, and others, “Health Promotion Planning: an Educational and Environmental Approach,” 1991.

[11] N. M. Razali, Y. B. Wah, and others, “Power Comparisons of Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors and Anderson-Darling Tests,” *J. Stat. Model. Anal.*, vol. 2, no. 1, pp. 21–33, 2011.

[12] C. S. Boccolini, M. L. de Carvalho, and M. I. C. de Oliveira, “Factors Associated with Exclusive Breastfeeding in the First Six Months of Life in Brazil: a Systematic Review,” *Rev. Saude Publica*, vol. 49, p. 91, 2015.

[13] C. Britton, F. M. McCormick, M. J. Renfrew, A. Wade, and S. E. King, “Support for Breastfeeding Mothers,” *Cochrane database Syst. Rev.*, no. 1, 2007.

[14] J. Haryanto, Y. S. Suryandaru, and S. D. Wahyuni, “Exclusive Breastfeeding Practice of Mothers in Breastfeeding Phase in Surabaya,” in *Proceeding*, 2017, vol. 1, no. 1.