

The relationship of the maternal-fetal attachment and the attitude toward exclusive breastfeeding among pregnant women in Indonesia

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ABSTRACT

Compare to others province in Borneo, central Borneo has failed to meet the minimum target of exclusive breastfeeding, estimated only about 20.5%. However, in Palangkaraya City, the prevalence of exclusive breastfeeding roughly only 14.99% and this number has decreased slowly year by year. *Maternal Fetal Attachment* (MFA) is playing an important role to the mother's attitude to breastfeed their babies when they birth. Maternal-fetal attachment also affected to the mother's health practice attitude toward her pregnancy.

The aim of this study was to explore the relationship between maternal-fetal attachment and their attitude toward breastfeeding exclusively. The consecutive sampling was used to recruited 97 participants in this study. Rank spearman was calculated to determine the relationship between two variables. The result finding there is no a significant relationship between maternal-fetal attachment and their attitude to breastfeed exclusively. Limitations and recommendations have been made in this article for further study in the same area.

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1. Introduction

In Indonesia, the babies who are breastfed exclusively by their mother were estimated only 29.5% from the national minimum target, 80% (Health Ministry of Central Borneo, 2017). Unfortunately, the Central Borneo only obtained about 20.5%, yet recorded as one of three province in Indonesia which have not met the minimum national target in 2016 (Health Ministry of Central Borneo, 2017). This number has decreased compare to the previous year in 2015, as many as 27.5% (Health Ministry of Central Borneo, 2017). In detail, Palangkaraya (one of the city in Central Borneo), performed positive prevalence of exclusive breastfeeding about 41.99% in 2015, nevertheless this number has been decreased significantly in the following year, just only about 14.99% (Health Ministry of Central Borneo, 2017). The health authority recommended and established the program to support exclusively breastfeeding because this may diminish domestic economic burdened and costless for the babies care. In fact, recently, the cost to purchase formula milk for the baby is four to five time more expensive compare with the cost to purchase mother's supplement to stimulate mother's milk breast (Ministry of Health, 2018).

A mother's attitude towards breastfeeding has been shown to influence the likelihood of her initiating and continuing to breastfeed (Inoue, Binns, Katsuki, & Ouchi, 2013). According to the study, many factors has influenced the mother's attitude to breastfed their babies, such as personal breastfeeding experience, social network support including family and close friend, professional support, family tradition, exposure to positive role models and societal values which promote breastfeeding as normal and desirable (Primo et al., 2016). Study also highlighted that maternal-fetal attachment during pregnancy also one of the factor that influence mother to breastfed their babies when the babies has born (Tafazoli et, 2014). Maternal-fetal attachment is a unique emotional tie that has developed during pregnancy (Elisa Palma, Ivan Armijo , Javier Cifuentesa , Sergio Ambiado , Pilar Rochet , Blanca Díaz, 2020). This relationship also contributed to the mother's attitude toward her pregnancy such as the absence of alcohol and cigarette consumption, exercise, and seeking healthcare (antenatal care), as well as preparing to be a new parent and how to breastfeed properly (Cristin Malm, Hildingsson, Christine, Radestard, & Lindgren, 2016).

Based on preliminary study in Primary Health Care Centre Menteng in Central Borneo, the number of exclusive breastfeed coverage in 2016 just only 9.5% (Health Ministry of Central Borneo, 2017). This study aimed to explore the relationship between maternal-fetal attachment and mother's attituded on exclusive breastfeed among pregnant woman in the Primary Health Care Centre, Palangka Raya, Central Borneo, Indonesia.

2. Method

After obtained the IRB from health authority in Palangka Raya, Central Borneo (No.006B/IX/KE.PE/2018), the aim and procedure of the study were explained to the eligible participant. The population in this study are all the pregnant women who come to the Primary Health Centre in Central Borneo in 2018. Analytic observational was used to approach the study design. The consecutive sampling was applied to choose the eligible participants includes; a) mother all ranged age, b) all parity, c) pregnant women who have not complicated during pregnancy. The benefit and consequence as well as information if the participant can withdrawal at any time during this study also have been explained by researchers prior informed consent gained. Out of 97 participants have been recruited in this study during May to December 2018. The researcher used two instruments: The Indonesian version of Prenatal Attachment Inventory (I-PAI) (Suryaningsih, 2015) and the instrument to measure mother toward her attitude to breast milk their baby which is developed by author. I-PAI consist of 21 likert-scale item and has been tested its validity and reliability among targeted population in Indonesia as well as performed higher internal consistency (. 937) (Suryaningsih, 2015) from the original one (Alessandra Busonera , Stefania Cataudella, Jessica Lampis, 2017). The instrument to measure mother toward her attitude to breast milk the baby has been tested its validity and reliability resulted coefficient alpha= .923. The cut-off point of I-PAI score in this study was 61, while the cut-off points for attitude scale. Rank-spearman was used in this study to run the relationship between two variables due to the variable were ordinal and nominal.

3. Results

All the participant in this study were in their third trimester. The characteristic of the participants can be seen in the [table 1](#), while the distribution of maternal-fetal attachment score and mother's attitude to breastfed their babies has been described in the [figure 1](#) and [2](#), respectively.

Table 1. The demographic characteristic of participants

| Characteristic | Frequency (n) | (%) |
|---------------------------|---------------|------|
| Age | | |
| <20 year | 4 | 4,1 |
| 20-35 year | 85 | 87,7 |
| >35 year | 8 | 8,2 |
| Parity | | |
| Primi | 39 | 40,2 |
| Multi | 57 | 58,8 |
| Grande Multi | 1 | 1,0 |
| Mother's education | | |
| Low | 24 | 24,7 |
| Medium | 53 | 54,6 |
| High | 20 | 20,6 |
| Occupation | | |
| Employer | 14 | 14,4 |
| Non-employer | 83 | 85,6 |

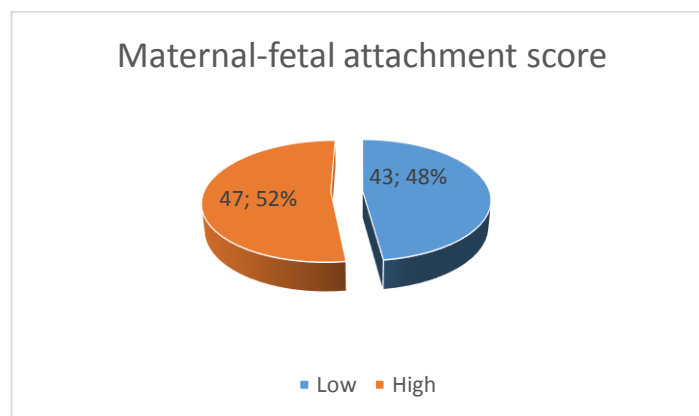


Figure 1. The distribution of maternal-fetal attachment score among participants

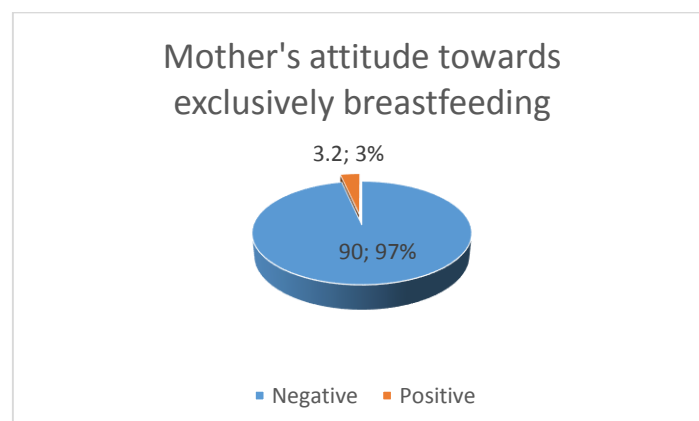


Figure 2. The distribution of mother toward her attitude to give exclusively breastfeeding

The purpose of this study is to explore the relationship between maternal-fetal attachment and mother's attitude to breastfed their baby exclusively. Rank spearman statistical analysis has been

calculated and there was no a significant relationship between two variables. The statistical analysis has been explained in the [table 2](#).

Table 2. The relationship between mfa and mother's attitude towards exclusive breastfeeding

| Variable | Mother's attitude | | | | P value | r |
|------------------|-------------------|------|----------|------|---------|-------|
| | Negative | | Positive | | | |
| | n | % | n | % | | |
| Mfa score | | | | | | |
| Low | 43 | 97,7 | 1 | 2,3 | 0,88* | 0,174 |
| High | 47 | 88,7 | 6 | 11,3 | | |

*rank spearman test

In current study, there was no significant relationship between maternal-fetal attachment and mother's attitude toward her willingness to breastfed the baby when the baby is born may because the variable of maternal-fetal attachment was not the factor internal that directly influence mother to established her attitude.

4. Discussion

In this study both mothers with low and high MFA scores mostly had negative attitudes toward breast milk. Although the results of the statistical test stated that there was no correlation between MFA scores and attitudes toward exclusive breastfeeding, mothers with high MFA scores had a lower percentage of negative attitudes than mothers with low MFA scores. In line, previous study mentioned if variable of maternal-fetal attachment and variable of attitude to breastfed the baby are not interrelation variable (Inoue et al., 2013). However, the current finding incongruent with the senior study (Huang, H., Wang, S., Chen, 2004) that mention if the maternal-fetal attachment is the predictor of mother's decision on giving exclusive breastfeeding. In addition, regarding the mother's education level, mostly the respondents are graduated from senior high school. This indicate if the majority of mothers have a good literature. Interestingly, based on systematic review conducted by researchers, they conclude that a negative association between the maternal education and breastfeeding prevalence within 12 months postpartum is acknowledged. The study lied on the Chinese culture and employment environment, mentioned, if mothers who have attained a high level of education are less likely to breastfeed their babies. Contrary, the mothers who have attained a low level of education are more likely to breastfeed their baby (Zhao et al., 2017).

Attitude is the result of a long process, which is influenced by experience to evaluative judgment built from information that is currently accessible (Bohner & Dickel, 2011). The components that will make up attitudes are cognitive, affective and behavioral (Jain, 2014). According to the previous study, many factors has influenced the mother's attitude to breastfed their babies which one of them is maternal-fetal attachment (Tafazoli, et al, 2014), however, in current study, a higher MFA score does not necessarily make a positive attitude towards exclusive breastfeeding. This result is contrary with the previous study from Taiwan (Huang, H., Wang, S., Chen, 2004). The researchers measure the maternal-fetal attachment variable and maternal body image to the breastfeeding intention among pregnant women. Out of 195 respondents were invited to administered the questionnaire. Mother who had negative body image during their third trimester, tend to be lower score on maternal-fetal attachment. Furthermore, women who have negative body image and lower maternal-fetal attachment had intended to choose bottle-feeding rather than exclusive breastfeeding. This result indicated that the variable maternal-fetal attachment as indirect factor influencing mother toward her attitude to breastfeed their baby. Some studies support this hypothesis, however, mother's self-efficacy as the direct factor contribute to the mother's attitude of breastfeeding (Pradanie, 2015; Rahayu, 2018). Congruently, prospective study conducted in Congo found if the self-efficacy to breastfeed and mother's intention to exclusively breastfeed were the most important predictors of discontinuing exclusive breastfeeding before six months (Babakazo et al., 2015). Therefore, they recommended to the further researcher to emphasize the intervention which is focus on these factors

to enhance the greater impact on the duration of exclusively breastfeeding. Other study show that social information and support of health workers as well as support from father are the factors that have a major influence on good attitudes and behaviors towards exclusive breastfeeding (Brady, 2017; Sharmin, Chowdhury, Khatun, & Ahmed, 2016). Therefore, for the rigorous finding, exploring maternal toward her attitude on breastfeeding might be considered from many variables.

We also need to consider the instrument in this study which is developed by the author without the process of pilot project and invite the expert to provide judgment on the item. We can assume, the instrument was not strong enough to measure the concept. Ideally, to develop the new instrument, the author need to follow guidelines and rigorous procedures (Ayub, 2014). Probably this may lead the bias result on the finding. The most finding guideline on the translation and adaptation instrument from the existing tool in health care study is based on World Health Organization (WHO) as well as according to Brislin's (Brislin, 1986; Burger et al., 2020; Liyuan Dou1, Juan Huang, 2020; Viren Swami, 2018; WHO, 2018).

5. Conclusion

The result finding there is no a significant relationship between maternal-fetal attachment and their attitude to breastfeed exclusively. However, authors acknowledge there was limitation such as instruments were not piloted. Additionally, the cofounding factors based on the literature of this study may need to be control to avoid bias. The author needs to follow the guidelines for new instrument development include invite the experts to provide judgment on the content of each item administered the new instrument to the target population are also needed to confirm the language error and culture issue

6. Recommendations

Finally, the number of participants may need to be increased to achieve the generalizability of the result.

References

- Alessandra Busonera, Stefania Cataudella, Jessica Lampis, M. T. & G. C. Z. (2017). Prenatal Attachment Inventory: expanding the reliability and validity evidence using a sample of Italian women. *Journal of Reproductive and Infant Psychology*, 35(5), 462–479. Retrieved from doi: [10.1080/02646838.2017.1349896](https://doi.org/10.1080/02646838.2017.1349896)
- Ayub, N. (2014). Development of marital satisfaction scale. *Pakistan Journal of Clinical Psychology*, 9(1), 19–34.
- Babakazo, P., Donnen, P., Akilimali, P., Mapatano, N., Ali, M., & Okitolonda, E. (2015). Predictors of discontinuing exclusive breastfeeding before six months among mothers in Kinshasa: a prospective study. *International Breastfeeding Journal*, 10(19), 1–10. <https://doi.org/10.1186/s13006-015-0044-7>
- Bohner, G., & Dickel, N. (2011). Attitudes and Attitude Change. *Annual Review Psychology*, 62, 391–417. <https://doi.org/10.1146/annurev.psych.121208.131609>
- Brady, A. (2017). Fathers and breastfeeding: Attitudes, involvement and support. *British Journal of Midwifery*, 25(7). <https://doi.org/https://doi.org/10.12968/bjom.2017.25.7.426>
- Brislin, R. W. (1986). *The wording and translation of research instruments: In: Lonner WJ, Berry JW. (Eds.). Field methods in cross-cultural research.* Beverly Hills, California: 137-64. Cunqueiro: Sage.
- Burger, E. A., Smith, M. A., Killen, J., Sy, S., Simms, K. T., Canfell, K., & Kim, J. J. (2020). Projected time to elimination of cervical cancer in the USA: a comparative modelling study. *The Lancet Public Health*, 5(4), e213–e222. [https://doi.org/10.1016/S2468-2667\(20\)30006-2](https://doi.org/10.1016/S2468-2667(20)30006-2)

- Cristin Malm, M., Hildingsson, I., Christine, R., Radestard, I., & Lindgren, H. (2016). Prenatal attachment and its association with foetal movement during pregnancy – A population based survey. *Women and Birth*, 29, 482–486. <https://doi.org/10.1016/j.wombi.2016.04.005>
- Elisa Palma, Ivan Armijo , Javier Cifuentesa , Sergio Ambiado , Pilar Rochet , Blanca Díaz, J. G. and C. M. (2020). Hospitalisation in high-risk pregnancy patients: is prenatal attachment affected? *Journal Of Reproductive And Infant Psychology*. Retrieved from <https://doi.org/10.1080/02646838.2020.1740661>
- Health Ministry of Central Borneo. (2017). *Health Profile of Palangka Raya*. Palangka Raya.
- Huang, H., Wang, S., Chen, C. (2004). Body Image, Maternal- Fetal Attachment, and Choice of Infant Feeding Method: A Study in Taiwan. *Birth Issue in Perinatal Care*, 31(3). <https://doi.org/https://doi.org/10.1111/j.0730-7659.2004.00303.x>
- Inoue, M., Binns, C., Katsuki, Y., & Ouchi, M. (2013). Japanese mothers' breastfeeding knowledge and attitudes assessed by the Iowa Infant Feeding Attitudes Scale. *Asia Pacific Journal Clinicial Nutrition*, 22(2), 261–265. <https://doi.org/doi:10.6133/apjcn.2013.22.2.08>
- Jain, V. (2014). 3D Model of Attitude. *International Journal of Advanced Research in Management and Social Sciences*, 3(March).
- Liyuan Dou1 , Juan Huang, P. D. and L. G. (2020). Translation, cultural adaptation and validation of the Chinese Multimorbidity Treatment Burden Questionnaire(C-MTBQ): a study of older hospital patients. *Health and Quality of Life Outcomes*, 18, 194.
- Ministry of Health. (2018). *Data dan Informasi - Profil Kesehatan Indonesia (Data and Information - Indonesia Health Profil)*. 1–184. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Pradanie, R. (2015). Paket dukungan terhadap breastfeeding self-efficacy dan keberhasilan menyusui pada ibu postpartum. *Jurnal Ners*, 10(1), 20–29.
- Primo, C. ., Nunes, B. ., Lima, E. F., Leite, F. ., Pontes, M. ., & Brandão, M. A. . (2016). Which factors influence women in the decision to breastfeed? *Invest Educ Enferm*, 34(1), 198–210. <https://doi.org/DOI:10.17533/udea.iee.v34n1a22>
- Rahayu, D. (2018). Hubungan Breastfeeding Self Efficacy Dengan Keberhasilan Pemberian ASI Eksklusif. *Jurnal Ilmu Kesehatan*, 7(1), 247–252.
- Sharmin, L., Chowdhury, M. A. K., Khatun, S., & Ahmed, N. (2016). Barriers to Exclusive Breastfeeding among Urban Mothers. *Journal of Enam Medical College*, 6, 88. <https://doi.org/10.3329/jemc.v6i2.27763>
- Suryaningsih, E. K. (2015). *Indonesian Version of Prenatal Attachment Inventory (PAI): A Preliminary Study*. National Taipei University of Nursing and Health Sciences.
- Tafazoli et, A. (2014). Relationship between Prenatal Attachment and Duration of Exclusive Breast Feeding in Primiparous Women. *J Neyshabur Univ Med Sci* 2014, 2(3), 67–75. Retrieved from <http://journal.nums.ac.ir/article-1-54-en.html>
- Viren Swami, D. B. (2018). Translation and validation of body image instruments: Challenges, good practice guidelines, and reporting recommendations for test adaptation. *G Model*, 17.
- WHO. (2018). Adolescent Pregnancy. Work On Adolescents Pregnancy. Retrieved from <https://www.who.int/en/news-room/fact-sheets/detail/adolescent-pregnancy>
- Zhao, J., Ph, M., Candidate, D., Zhao, Y., Senior, P. D., Du, M., ... Ph, D. (2017). Maternal education and breastfeeding practices in China: A systematic review and meta-analysis. *Midwifery*, 50(March), 62–71. <https://doi.org/10.1016/j.midw.2017.03.011>