Correlation between education, occupation, family income, and self confidence with exclusive breastfeeding

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ABSTRACT

Background: The scope of exclusive breastfeeding in Puskesmas Pengasih II in Kulon Progo district of DI Yogyakarta, is still below national target (80%). Some factors that affect this problem are level of education, occupation, the mother's self confidence, and the family's economical income. This study aims to determine the correlation between education, occupation, family income, and mother's self confidence with exclusive brestfeeding in Puskesmas Pengasih II.

Objective: The objective of this study is to determine the correlation between education, occupation, family income, and mother's self confidence with exclusive brestfeeding in Puskesmas Pengasih II.

Method: This study is an observational study with cross sectional method and total sampling technique. The study population is all mothers who has 6 – 12 months old babies. Data analisis is done using chi square test with alpha = 5%.

Results: There are statistically significant correlation between the mother's occupation (p=0,036), family income (p=0,000) and self confidence (p=0,000) with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district. There are no statistically significant correlation between level of education (p=0,948) with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district.

Conclusion: There are statistically significant correlation between the mother's occupation, family income, and self confidence with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district. There are no statistically significant correlation between level of education with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district.

Latar Belakang: Cakupan ASI eksklusif di Provinsi DIY, di Kabupaten Kulon Progo dan diPuskesmas Pengasih II masih di bawah target nasional (80%). Beberapa hal terkait dengan masalahpemberian ASI eksklusif adalah tingkat pendidikan ibu, status pekerjaan ibu, tingkat pendapatankeluarga dan kepercayaan diri ibu. Penelitian ini bertujuan mengetahui hubungan pendidikan,pekerjaan, pendapatan dan kepercayaan diri dengan pemberian ASI eksklusif di wilayah kerjaPuskesmas Pengasih II.

Tujuan: Mengetahui hubungan pendidikan, pekerjaan, pendapatan dan kepercayaan diri denganpemberian ASI eksklusif di wilayah kerja Puskesmas Pengasih II Kabupaten Kulon Progo.

Metode: Jenis penelitian adalah observasional dengan metode cross sectional. Populasi penelitianadalah seluruh ibu yang mempunyai bayi enam sampai 12 bulan, menggunakan teknik totalsampling. Analisis data menggunakan uji chi square dengan taraf signifikasi alpha = 5%.

Hasil: Ada hubungan pekerjaan ibu (p=0,036), pendapatan (p=0,000) dan kepercayaan diri(p=0,000)

*dengan pemberian ASI eksklusif. Tidak ada hubungan pendidikan (p=0,948) denganpemberian ASI eksklusif.**Kesimpulan:** Faktor yang berhubungan dengan pemberian ASI eksklusif adalah pekerjaan,pendapatan dan kepercayaan diri. Tidak ada hubungan pendidikan dengan pemberian ASI eksklusif.*

INTRODUCTION

One of many indicators for the success of health development is the reduction of infant mortality rate and the increase of public nutritional status.[1] Data from the Indonesian Health Demographic Survey in 2007 showed that Infant Mortality Rate (IMR) in Indonesia was 34/1000 live births.[2] Indonesian IMR in 2009 was 30/1000 live births. While, DI Yogyakarta IMR in 2011 was 17/1000 live births.[3] The health profile of Kulon Progo District in 2012 showed that IMR of the year 2011 was 12,8/1000 live births.

The causes of infant mortality include *Low Birth Weight* (LBW), diarrhea, and bronchopneumonia. In which inadequate breastfeeding is one of the contributing factor of infant mortality.[4] Adequate breastfeeding is hoped to reduce Infant Mortality Rate in Indonesia and helped achieve *millenium developmental goal* (MDGs) goal 4, in which the Indonesian IMR is hoped to be reduced by 23/1000 live births in 2015.

World Health Organization (WHO) and *The United Nations Children's Emergency Fund* (UNICEF) reccomends six months of exclusive breastfeeding, breastfeeding within one hour after labour, and breastfeeding as demanded by the baby without using feeding bottle or pacifier.[5] Data from the Indonesian Health Demographic Survey showed that within the year of 2002–2003 the scope of breastfeeding in babies less than 2 months old was only 64%, and only 48% in 2007.[2] The national target for exclusive breastfeeding in 2014 was 80%.[6] While according to Indonesian health profile 2012, the scope of exclusive breastfeeding in 2011 was only 61,5%, in which the scope of exclusive breastfeeding in DI Yogyakarta was only 71%.

Based on the report by DI Yogyakarta Department of Health, the scope of exclusive breastfeeding in DIY, in 2012, was 58,20%. On the same year, the scope of exclusive breastfeeding in Kulon Progo district was only 58,03%. The health profile of Kulon Progo district by Department of Health in 2012, stated that the scope of exclusive breastfeeding in 2011 was 52,5%, in which Puskesmas Pengasih II was one of the area with low scope of exclusive breastfeeding. At Puskesmas Pengasih II, the scope of exclusive breastfeeding in 2012 was only 42,5%, and 23,6% in 2011.[7]

Many reasons are told by mothers who could not achieve exclusive breastfeeding, such as the mother's low self confidence, sociocultural factors, the effect of formula feeding promotion, low support from health workers, the mother's health, the baby's health, the mother's occupation, family income, and the mother's level of education as well as knowledge and attitude.[8] Mothers who have positive attitude towards breastfeeding would usually start easier and succeed to provide exclusive breastfeeding to their babies. The mother's low self confidence is mostly caused by the fear of not having enough breastmilk to give to her baby.[9] Based on these data, we were intrigued to do a study about the correlation between education, occupation, family income, and mother's self confidence with exclusive brestfeeding in Puskesmas Pengasih II..

METHODS

This study is an analytic observational study with cross sectional study design. The study population is all mothers who have 6 to 12 monts old babies and reside within the working teritory of Puskesmas Pengasih II in Kulon Progo district, Daerah IstimewaYogyakarta province. Study samples are mothers who reside in the working teritory of Puskesmas Pengasih II, and have 6 to 12 months old baby. Sample is collected using the total sampling technique. The inclusion criteria of this study include subjects who are willing to participate and are from the Javanese race. Primary data is collected by research questionnaire in the form of structured questionnaire. The questionnaires are given directly to respondents. Data is analyze using univariat analysis and bivariat using Chi Square analysis.

RESULTS

This study was done in May 2013 within the working teritory of Puskesmas Pengasih II in the district of Kulon Progo. In total, 142 respondents were achieved. Puskesmas Pengasih II is one of the government public health centers in the district of Kulon Progo, DI Yogyakarta. It has 42 Posyandu (Integrated Health service Posts), 2 Poskesdes(Village health posts), 3 Pustu (Sub-health centers), and 1 Puskesmas induk (Primary Public health center).

Table 1 Subject characteristics

Characteristics	Total	Percentage (%)
Mother's Age (Years)		
<20	14	9,9
20-35	83	58,4
>35	45	31,7
Baby's Age (Months)		
6	11	7,7
7	14	9,9
8	19	13,4
9	22	15,5
10	22	15,5
11	26	18,3
12	28	19,7
Number of Children		
1	52	36,6
2	60	42,3
>2	30	21,1
Breastfeeding experience		
Exclusive breastfeeding	48	33,8
Not exclusive breastfeeding	42	29,6
Not breastfeeding	52	36,6
Total	142	100,0

Table 1 showed that most of the respondents were within the age group of 20–35 years old, 83 subjects (58,4%), and the lowest was within the age group of <20 years old with only 14 subjects (9,9%). The baby's age were mostly 12 months old with 28 babies (19,7%), and the least was 6 months old with only 11 babies

(7,7%). Most respondents had 2 children which were 60 subjects (42,3%), and only 30 subjects had more than 2 children (21,1%). Most of the respondents never experienced breastfeeding, 52 subjects (36,6%).

Table 2. Result of univariant analysis

Variables	Total	Percentage (%)
Level of education		
High	85	59,9
Low	57	40,1
Occupation		
Working mom	48	33,8
Not-working mom	94	66,2
Family Income		
High	85	59,9
Low	57	40,1
Self confidence		
Low	66	46,5
High	76	53,5
Breastfeeding		
Not exclusive	64	45,1
Exclusive	78	54,9
Total	142	100,0

Table 2 showed that most respondent had high level of education (graduated senior highschool, 85 subjects /59,9%). Majority of respondents were stay-at-home moms, 94 subjects (66,2%). Most of the respondents come from high-income family (≥ Minimum Regional Wage) which were 85 subjects (59,9%). There were more mothers with high self-confidence, which were 76 subjects (53,5%). More respondents provide exclusive breastfeeding for their current babies, which were 78 subjects (54,9%).

Bivariat analysis was done to determine the correlation between each independent variables with dependent variable, as well as to determine the magnitude of risk factor for each independent variables for the dependent variable, with $\alpha = 0,05$. We used Chi Square analysis technique for data analysis.

Tabel 3. Correlation between Mother's Level of Tabel 3 Tabel 3 Education With Exclusive Breastfeeding

| Level of Education | Breastfeeding | | Total (%) | P | PR 95% CI |
	Not Exclusive (%)	Exclusive (%)			
Low	25 (17,6%)	32 (22,5%)	57 (40,1%)		0,956 (0,658-1,389)
High	39 (27,5%)	46 (32,4%)	85 (59,9%)	0,948	
Total	64 (45,1%)	78 (54,9%)	142 (100%)		

Note : P is p value
PR is prevalence ratio
CI is confidence interval

Table 3 showed that 46 subjects (32,4%) from 85 subjects with high level of education provided exclusive breastfeeding for their babies. The result from chi square analysis showed p value = 0,948, PR = 0,956, and 95% CI = 0,658- 1,389. This analysis showed that there are no statistically significant correlation between the mother's level of education with exclusive breastfeeding (nilai p=0,948).

Tabel 4 Correlation between Mother's Occupation With Exclusive Breastfeeding

| Occupation | Breastfeeding | | Total (%) | p | PR 95% CI |
	Not Exclusive (%)	Exclusive (%)			
Working mom	28 (19,7%)	20 (14,1%)	48 (33,8%)		1,523 (1,073-2,163)
Not working mom	36 (25,4%)	58 (40,8%)	94 (66,2%)	0,036*	
Total	64 (45,1%)	78 (54,9%)	142 (100%)		

*p<0.05

Table 4 showed that within 94 subjects who were not working, 58 subjects (40,8%) provided exclusive breastfeeding for their babies. The result from chi square analysis showed that p value =0,036, PR=1,523 and 95% CI=1,073-2,163. This analysis showed that there are statistically significant correlation between the mother's occupation with exclusive breastfeeding (p=0,036).

Tabel 5 Correlation between Family Income With Exclusive Breastfeeding

| Occupation | Breastfeeding | | Total (%) | p | PR 95% CI |
	Not Exclusive (%)	Exclusive (%)			
Working mom	28 (19,7%)	20 (14,1%)	48 (33,8%)		1,523 (1,073-2,163)
Not working mom	36 (25,4%)	58 (40,8%)	94 (66,2%)	0,036*	
Total	64 (45,1%)	78 (54,9%)	142 (100%)		

*p<0.05

Table 5 showed that within the 85 high family income subjects, there were 52 subjects (36,6%) who did not provide exclusive breastfeeding for their babies. The result from Chi square analysis showed that p value=0,000, PR=2,906 and 95% CI=1,710-4,939. This analysis showed that there are statistically significant correlation between the level of family income with exclusive breastfeeding (p=0,000).

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Tabel 6 Correlation between Self confidence with Exclusive Breastfeeding

Self confidence	Breastfeeding		Total (%)	p	PR 95% CI
	Not Exclusive (%)	Exclusive (%)			
Low	41 (28,9%)	25 (17,6%)	66 (46,5%)		2,053
High	23 (16,2%)	53 (37,3%)	76 (53,5%)	0,000*	(1,390-
Total	64 (45,1%)	78 (54,9%)	142 (100%)		3,031)

*p<0.05

Table 6 showed that within 76 subjects with high self-confidence, there were 53 subjects (37,3%) who provided exclusive breastfeeding for their babies. The result of Chi square analysis showed that p value=0,000, PR=2,053 and 95% CI=1,390-3,031. This analysis showed that there are statistically significant correlation between the mother's self confidence with exclusive breastfeeding (p=0,000).

DISCUSION

The result from Chi square analysis showed that p-value 0,948 (>0,05), this analysis means that there are no statistically significant correlation between the mother's level of education with exclusive breastfeeding. Based on the description of 'level of education', it is known that within 142 respondents, most of them are highly educated which were 85 subjects (59,9%). And within the subjects with high level of education, 46 subjects (32,4%) provided exclusive breastfeeding for their babies.

Level of education will affect one's attitude towards their health.[10] Nevertheless, the result of this study showed that the mother's level of education are not statistically significant in relation to exclusive breastfeeding. This might be due to the fact that most subjects with high level of education at Puskesmas Pengasih II were those who also work. The mother's level of education affects their ocupational status. Women with higher level of education tend to become a career woman, hence they work outside their home. Working mom only has three months of maternity leave during their pregnancy and after labour. One month maternity leave during late pregnancy, and two months maternity leave after labour. After these maternity leave, working moms need to get back directly to work, so it become difficult for them to provide exclusive breastfeeding for their babies.[11]

This result is coherent with previous research by Sartono & Utaminingrum (2012) which also showed that there are no statistically significant correlation between the mother's level of education and their ability to provide exclusive breastfeeding. The formal education that the mothers had achieved did not affect how they provide breastfeeding for their babies.[12] There were no statistically significant correlation between the mother's level of education with the length of exclusive breastfeeding.[13]

The result of chi square test showed that p-value 0,036 (<0,05), which means that there are statistically significant correlation between the mother's occupation with exclusive breastfeeding. The PR value is 1,523, which means that, statistically speaking, working mom has 1,523 more chance of not providing exclusive breastfeeding for their babies. Based on the descption of occupation, it is known that within 142 respondents, 94 subjects (66,2%) are not working. The stay-at-home mom who provide exclusive breastfeeding are 58 subjects (40,8%).

The result of this study supports a theory by Green (1980) which stated that occupation is one of the predisposing factor that affect behavior, which in this case means exclusive breastfeeding. The results from previous study also support the correlation between occupation and exclusive breastfeeding.[14] This reseacrh is coherent with the theory which stated that working moms tend to fail on giving exclusive breastfeeding for their babies due to their hectic activities. The use of formula milk is unavoidable, so that their babies will not starve and cry. A mother's occupation could prevent her from providing exclusive breastfeeding for her baby.[13] The type of mothers occupation could also affect her abilities to provide exclusive breastfeeding.[15]

The lack of exclusive breastfeeding optimalization for working moms might be due to the use of formula milk. Subjects who work outside their home, like government employees, private sector employees, farmers, and merchants might also be the cause of obstacles for mothers who want to provide exclusive breastfeeding. This might also be due to the policy in the mother's working environment. The abscence of Nursing Room in their working place might be one of the reason. During office hours, most respondents entrusted their babies to their grandmothers or babysitters.

The result of Chi square analysis between family income and exclusive breastfeeding showed that p-value 0,000 (<0,05). This means that there are statistically significant correlation between the level of family income with exclusive breastfeeding. PR value is 2,906, which means that, statistically speaking, mothers with higher family income has 2,906 more chance on failing to provide exclusive breastfeeding for their babies compare to those with lower income.

Based on the description of family income, within 142 subjects, most have income more that the Minimum Regional Wage which are 85 subjects (59,9%). Subjects with high family income who fail to provide exclusive breastfeeding are 52 subjects (36,6%). This might be due to the fact that higher income mothers have the ability to afford formula milk. Another posibility is the fact that mothers with higher income are probably working moms, so that they failed to provide exclusive breastfeeding due to their hectic schedule.

The result of this study supports a theory by Green (1980) which stated that income is one of the predisposing factor that affect behavior, which in this case is exclusive breastfeeding.[10] This result also support the theory which stated that economical income affects many aspects of human's life, including their health management.[16]

The dominant factor that affect a mother's ability to provide exclusive breastfeeding is her socioeconomical status. This is due to the fact that mothers who come from lower family income has less ability to afford formula milk, hence they tend to prefer exclusive breastfeeding.[17] Mothers who have higher income, mostly prefer to give formula milk for their babies, while mothers with lower income prefer to give exclussive breastfeeding in order to limit spending.[18] There are correlation between income with exclusive breastfeeding.[19] There are no correlation between family income with exclusive breastfeeding behavior.[11]

The result of chi square test showed that p-value 0,000 (<0,05), which means that there are statistically significant correlation between the mother's self-confidence with exclusive breastfeeding. The PR value is 2,053, which means that, statistically speaking, mothers with low self-confidence has 2,053 more chance of not providing exclusive breastfeeding for their babies. Based on the descption of self-confidence, it is known that within 142 respondents, 76 subjects (53,5%) have high self confidence.

Subjects with higher self confidence and manage to provide exclusive breastfeeding for their babies are 53 subjects (37,3%). This might be due to the fact that subjects with lower self confidence have doubt that breastfeeding alone is enough for babies until they are 6 months old. Lack of support from family, health provider, and health volunteers might be the cause of lower self-confidence in breastfeeding moms. In the working teritory of Puskesmas Pengasih II, there are a class which provide information about exclusive breastfeeding. But, this class is obstructed by minimal fund, hence it could not run optimally. Beside this fact, in the working teritory of Puskesmas Pengasih II, there are still no KP Ibu (Kelompok Pendukung Ibu or Mother Support group).

The result of this study support the theory which stated that health behavior is affected by self-confidence. Someone who has higher purpose would have higher will and commitment with strong self-confidence. While, those with lower self confidence will have lower commitment, hence they achieve results that are not as good as expected.[20] This result also support the theory which stated that self confidence is one's belief on every aspect of potentials that he has. This belief will make him able to achieve many goals in his life.[21] There are significant correlation between self-efficacy

with the duration of breastfeeding.[22] For working mom, there are significant correlation between self-confidence with exclusive breastfeeding.[23]

CONCLUSION

There are statistically significant correlation between the mother's occupation, family income, and self confidence with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district. There are no statistically significant correlation between level of education with exclusive breastfeeding in Puskesmas Pengasih II of Kulon Progo district.

FEEDBACK

The Department of Health in Kulon Progo District is hoped to provide policy that will support the prescence of Pojok ASI or Nursing Room within a working mom's office. Puskesmas Pengasih II is hoped to establish KP Ibu (Mother Support Group) in order to increase the efficacy of exclusive breastfeeding. It is hoped that 'Kegiatan Kelas Ibu' (Mother's Activity Class) could be optimalized in order to increase the information exchange and mother's knowledge about exclusive breastfeeding, as well as to increase community empowerment in support of exclusive breastfeeding programme. Further research is needed to determine other factors that might affect exclusive breastfeeding behavior. These factors might include the prescence of appropriate supporting facilities, health provider's attitude and behavior towards exclusive breastfeeding programme, and the policies and constitution that support exclusive breastfeeding.

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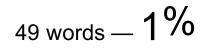
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