

Nutrition Intake during Pregnancy on the Duration of Exclusive Breastfeeding among Mothers in Yogyakarta

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Pregnant mother's intake can influence the nutrition status of mother, whilst good nutrition status can sustain breast milk production and ensure the success of exclusive breastfeeding. In Yogyakarta, exclusive breastfeeding decrease from 39.99% in 2008 become 34,56% in 2009. This study aimed at describing nutrition intake during pregnancy on the duration of exclusive breastfeeding among mothers in Yogyakarta. This study was a longitudinal study. The nutrition intake during pregnancy were assessed from 36 respondents and followed up for six months. Data were collected for 6 months follow up using standardized questionnaires. From the 36 respondents, there are 44,4% mothers that had adequate nutrition intake and 55,6 % mothers with inadequate nutrition intake during pregnancy. There are only 25% respondents (9 mothers) that success in giving exclusive breastfeeding to their baby. 3 respondents were mothers with adequate nutrition intake and 6 others were mothers with inadequate nutrition intake. The number of exclusive breastfeeding in Yogyakarta still remains low.

Keywords: mother's intake, pregnancy, exclusive breastfeeding, longitudinal study, 0-6 month baby

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Introduction

Breastmilk is a milk that was produced by milk gland in mother's body. Breastmilk is an emulsion of fat, lactose, and anorganic salt that come from mammae gland and it is a good food for baby¹. Breastmilk is the most suitable food for the baby. Inside the breastilk, there are more than 100 kinds of nutrients which needed by the baby for it's development². The nutrients inside breastmilk can be absorbed perfectly by the digestive system of a baby which ability is still limited³.

One type in giving breastmilk is exclusive breastfeeding. Excusive breastfeeding is giving breastmilk without any other food, fluid and water⁴, soon after birth, until the baby aged 6 month⁵ with the exceptence supplementation, vitamin, mineral, and medicine^{6,7}. Exclusive breastfeeding wiil give better immune system so that the baby can have more rarely sick episode than those who don't get exclusive breastfeeding³.

According to the data of Rikesdas in 2010, the number of a baby that get exclusive breastfeeding in Indonesia is only 15,3 %. In Yogyakarta, exclusive breastfeeding decrease from 39.99% in 2008 become 34,56% in 2009.

Pregnant mother's intake is one of the things that should be note for the fluency of milk production so that it doesn't inhibit the breastfeeding. Pregnant mother's intake can influence the nutrition status of mother, whilst good nutrition status can sustain breastmilk production and ensure the success of exclusive breastfeeding⁸. This study aimedat describingnutrition intake during pregnancy on the duration of exclusive breastfeeding among mothers in Yogyakarta.

Method

The design of this study was a longitudinal study. This study took place in 3 Puskesmas (Center of Public Health) in Yogyakarta namely Puskesmas Tegalrejo, Jetis, and Merangsan on July-April 2013. The nutrition intake during pregnancy were assessed from 36 respondents that lived in Yogyakarta with purposive sampling method. The respondents followed up for six months. Data were collected for 6 months follow up using standardized questionnaires.

Result

Table 1. The Sociodemographic Characteristics of Respondents

Variables	Respondents n (%)
Age	
< 27,5 years old	18 (50)
≥ 27,5 years old	18 (50)
Mother's Education	
Primary Education	9 (25)
Higher Education	27 (75)
Father's Education	
Primary Education	7 (19.4)
Higher Education	29 (80.6)
Mother's Job	
Working	8 (22.2)
Not working	28 (77.8)
Father's Job	
Labour	3 (8.33)
Bussinessman	13 (36.1)
Employee	14 (38.9)
Other	6 (16.7)
Family Income	
Not written	13 (36.1)
< min. salary	8 (22.2)
= min. salary	5 (13.9)
> min. salary	9 (25)
Not fixed	1 (2.78)

Respondents participated in this study are 36 peoples. Those respondents are followed for 6 months for it's breastfeeding to their baby. Table 1 showed the sociodemographic characteristic of respondents that participated in this study. The table are presented with distribution frequency. The sociodemographic charateristics include age, mother and father's education, mother and father's job, and family income.

The age of respondents was categorized by the average age of all respondents. Based on the age, 50 % respondents are <27.5 years old and others are ≥27,5 years old. Mother and father's education divided into two groups, primary education (elementary and junior high school) and higher education (high school and university). Most of respondents has

higher education backgrounds. Most of the respondents are not working mother.

Table 2. Exclusive Breastfeeding (BF) among Respondents

Variables	Exclusive BF (n = 9) n (%)	Non Exclusive BF (n = 27) n (%)
Nutrition Intake		
Adequate	3 (33.3)	13 (48.1)
Inadequate	6 (66.7)	14 (51.9)

Of the 36 respondents, there are 44,4% mothers that had adequate nutrition intake and 55,6 % mothers with inadequate nutrition intake during pregnancy. Only 25% respondents (9 mothers) that success in giving exclusive breastfeeding to their baby. 3 respondents were mothers with adequate nutrition intake and 6 others were mothers with inadequate nutrition intake.

Discussion

1. The Sociodemographic Characteristics of Respondents

The sociodemographic characteristics of respondents in this study consist of age, educational background, job and family income. The average age of respondents is 27,5 years old. Most respondents in this study are non working mother and have higher educational background.

Age is one of the sociodemographic factors that affect the succeed in giving exclusive breastfeeding to baby⁹. The more increase maternal age, the longer breastfeeding given to the baby^{9, 10, 11} and younger maternal age could be an inhibitor in giving breastmilk¹².

In this study, parent's educational background divided into 2 groups, primary education (elementary and junior high school) and higher education (high school and university). Most of the respondents' education are higher education. Parents' with higher education usually will give longer breastmilk to their children than the parents' with primary education⁹. On contrary, the other study has different result. Other study said that less mother with higher education give exclusive breastfeeding to their babies¹³.

Most respondents in this study are non working mother (housewife). Working mother are tend to giving breastmilk unexclusively than houswife mother. These because working mother only have a little while maternity leave and have to go back to work soon¹⁴.

In the sociodemographic characteristic, most respondents in this study did not write their income. These could be because the questionnaire that was used in this study. The questionnaire is an open questionnaire so that the answer that given by respondents are variatives. Some respondents also thought that income is a personal thing so they cannot publisize it.

2. Exclusive Breastfeeding (BF) among Respondents

The respondents that particiyped in this study are 36 peoples. Of the 36 respondents, there are 44,4% mothers that had adequate nutrition intake and 55,6 % mothers with inadequate nutrition intake during pregnancy. Only 25% respondents (9 mothers) that success in giving exclusive breastfeeding to their baby. 3 respondents were mothers with adequate nutrition intake and 6 others were mothers with inadequate nutrition intake.

The nutrition intake of mother was taken using 24 hours recall in one time. The result of 24 hours recall was analyzed by computer software so that we can see the nutrition fact inside the food consumed by mother. Mothers with $\geq 80\%$ of energy, protein and fat intake are included adequate intake. On the other hand, mothers with $< 80\%$ of energy, protein, and fat intake are included inadequate intake.

The nutrition intake of mother during pregnancy beside for growth of the baby, it's also affecting the quality and quantity of the breastmilk production^{8, 15}. Adequate nutrition intake can make mothers have good nutrition status, which good nutrition status will accelerate the production of breastmilk itself. If the breastmilk could be produced smoothly, exclusive breastfeeding can be given to babies¹⁶.

The data of these study are taken with the adaptation in the reality. Nutrition intake data are taken by face to face interview or by phone. This differences can affect the result of this study. The nutrition intake data also

taken only once, so that it maybe hasn't describing the usual intake of mothers.

Conclusion and Recommendation

Of 36 respondents, 25% respondents (9 mothers) success in giving exclusive breastfeeding to their baby. 3 respondents were mothers with adequate nutrition intake and 6 others were mothers with inadequate nutrition intake. The number of exclusive breastfeeding in Yogyakarta still remains low.

For the next study, it's better to researching other factors that can affect exclusive breastfeeding that hasn't been analyzed in this study such as parity and, parent's knowledge.

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