

# The Effect of The First Thousand Days of Life Socialization Program on the Level of Knowledge and Behaviour of the Mother in Child Care in Kalumata Primary Health Care, Ternate City

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**Abstract**—The optimal growth process determines the quality of the child. Infancy and toddler age are the most important phase and the first thousand days of life are often referred to as the *golden period*. Hence, the application of the first thousand days of life program during the golden period is very important for mothers in supporting the mothers knowledge and behaviour in the care of children from postpartum to 2-year-olds. The purpose of this study was to determine the effect of the first thousand days of life socialization program on the level of knowledge and behaviour of the mother in child care in Kalumata Primary Health Care, Ternate City. This is an observational analytical study with cross-sectional design. The population in this study was all mothers who has child aged lower than or equal to 2 years old ( $\leq 2$  years) who had received program socialization for the first thousand days of life, with 30 samples of exposed group and 30 unexposed group. Interview and observation were done to collect the data. The data were statistically analyzed by using *Chi Square* method. The results showed that there was a relationship between the program socialization of the first thousand days of life (HPK) and the knowledge of mothers in child care ( $p < 0.05$ ). And there was a relationship between the program socialization of the first thousand days of life (HPK) and the behaviour of mothers in child care ( $p < 0.05$ ). In conclusion, socialization program for the first thousand days of life affects the knowledge and behaviour of mothers in child care.

**Index Terms**—The first thousand days of life, Socialization, Knowledge, Behaviour.

## I. INTRODUCTION

Most of the child mortality in Indonesia occurs during neonatal period (the first month of life). The probability of child mortality were 19 in every 1000 children in neonatal period, 15 in every 1000 in two- to eleven-month

period and 10 in every 1000 in one- to two-year old period. The infant mortality now has become the major hindrance in reducing child mortality rate. Indonesia is one of few countries globally that has achieved Millennium Development Goals of reducing child mortality by two thirds between 1990 and 2015: the under- five mortality rate has reduced from 85 deaths per 1000 live births to 27 deaths per 1000 live births (UNICEF, 2015).

Mother mortality rate in Ternate City year 2013 was 2. Then it increased to 3 in year 2014 which came from three different villages: Kelurahan Bastiong Talangame, Kelurahan Akehuda and Kelurahan Tabona. The mortality causes were bleeding, infection and eclampsia which also reflecting the low socioeconomic status and healthcare facility including ineffective perinatal care and obstetric care. Thus, it is crucial to review the maternal perinatal care in order to analyze the causes of mother mortality either medical factors or non-medical factors (Dinas Kesehatan Kota Ternate, 2016).

This condition leads to the inadequacy of the knowledge and behaviour of the community towards pregnancy and child care which eventually resulting in inability to perform any action to reduce the potential risks outcome. For this reason, the government has released the national campaign called The first thousand days of life program to increase the quality of human resources.

The Government of Indonesia launched the "1.000 First Day of Life Movement" known as 1,000 days of life. This movement aims to accelerate the improvement of nutrition to improve the lives of Indonesian children in the future. Child growth needs to be noticed after two years, as it grows catch-up (catch up) will still grow again until the age of puberty. Three phases in growth, a sharp deceleration phase of the infant component presented in the fetal growth, slowing phase of the child component beginning in the second half of the infant and progressing to maturity, and the pubertal phase where the child's growth will continue. At each phase the hormone regulator is different, so the nutritional intervention given must be specific (Djauhari, 2017).

The period of the first thousand days of life is considered as a window of opportunities or *golden period*, for the rapid growth and development happen in this period and are not going to happen in other age groups. The campaign of the first thousand days is directed to attain targets such as

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reducing the prevalence of underfive-stunting by 40% and underfive-wasting for than less than 5%, low birth weight by 30%, overnourish child, anemia in reproductive age women by 50%, while increasing at least 50% of mothers giving exclusive breastfeeding (Bappenas, 2012). The objective of nutritional improvement to mothers and children in critical window of the first thousand days is ensuring a healthy and productive life for children and cutting off poverty cycle.

The first thousand days of life was promoted since 2010 when scalling-up nutrition (SUN) campaign planned in international level. This case is one of comprehensive approaches which was involving the government, businessmen, and society to offer a particular treatment from pregnant mothers to two years old children. The adverse condition during pregnancy such as nutritional deficiency, maternal stress, lack of exercise and inadequade prenatal care, can cause suboptimal development of fetus. Suboptimal fetus development is a health risk in the forward life (Murti B, 2011).

The act of the first thousand days of life activity

Variabel	Exposed		Unexposed		p
	n	%	n	%	
Age (year)					
20-30	13	43	20	67	0,150
31-40	16	54	8	27	
41-50	1	3	2	6	
Level of Education					
SMP	3	10	6	20	0,265
SMA	18	60	21	70	
Sarjana	9	30	3	10	
Occupation					
IRT	21	70	26	87	0,236
PNS	9	30	3	10	
Wiraswasta	0	0	1	3	

after giving birth including exclusive breastfeeding (individual and group) and continue breastfeeding until 23-month, behavioural change education to improve complementary feeding practice, zink supplementation, diarrhea management, anthelmintic drugs administration, iron fortification, and insecticidal mosquito net. Nutritional Status in 1000 HPK will affect the quality of health, intellectual and productivity in the future. Mothers and infants require adequate and quality nutrition to ensure nutritional status and health status; Motor, social, and cognitive capabilities; Their ability to study and productivity

Knowledge	Joined		Not Joined		Total	Statistic
	n	%	n	%		
Adequate	25	80.6	6	19.4	31	p = 0.000
Inadequate	5	17.2	24	82.8	29	

in the future (USAID, 2014).. Therefore, the first thousand days of life program application in golden period is

substantial to support mothers knowledge and behaviour in post natal care until 2 years old.

Healthy and productive life of the child could be attained through health education. It motivates someone to have optimal capability in knowledge, behaviour and action in health. According to (Elsinga et al, 2008) who studied premarital conselling effect before and during pregnancy shows that there was knowledge improvement and significantly increase behaviour and action for natal care .

Knowledge is the result of human sensing or result of knowing toward object through senses (eyes, nouse, ears, etc) (Notoatmojdjo, 2010). Thus, it is influenced by attention level and perception of object. Behaviour is the result of any human experiences and interaction to environment which can be knowledge, behaviour and action. Behaviour can be individual respons or reactions toward any inner and outer trigger. Thus, knowledge will influence mother behaviour in children care.

Kalumata Primary Healthcare is under the teritory of Ternate health department. This primary healthcare is one of those that had socialised the first thousand days of life sosialitation program to the society especially pregnant mother and those who had underfive child. Related to this, the object of this study is to indentify the affects of the first thousand days of life towards mother knowledge and behaviour level in child care in Kalumata Primary care, Ternate.

## II. METHODS

This is an observational analitical study with cross-sectional design. Population in this study was all mothers who has child aged lower than or equal to 2 years old ( $\leq 2$  years old) who had received The First thousand Days of Life Socialization Program with 30 respondents in exposed group and 30 respondents in not exposed group. Interview and observation were done to collect the data. The data were statistically analyzed by using *Chi Square* method.

## III. RESULTS

### 1. Characteristics

Respondents characteristic by age, level of education and occupation were displayed in table 1.

Table 1. Respondents Characteristic in Exposed and Unexposed Group

As shown in table 1, age, level of education and occupation do not have relationship with behaviour in child care ( $p > 0.05$ ).

### 2. Effect of The First Thousand Days of Life Socialization on The Knowledge of Mothers

Table 2. Analysis of The Effect of The First Thousand Days of Life Socialization on The Knowledge of Mothers

As displayed in table 2, there was a significant effect of socialization program on mothers knowledge in child care ( $p = 0.000$ ). This confirms that The First

thousand Days of Life Socialization Program can increase mothers knowledge which eventually improve the wasting and other related diseases problem during *golden period*.

### 3. Effect of The First thousand Days of Life Socialization Program on Mothers Behaviour

Table 3. Analysis of The Effect of The First thousand Days of Life Socialization Program on Mothers Behaviour

Based on the data in table 5, there was a significant effect of The First thousand Days of Life Socialization Program on Mothers Behaviour. Thus, this program could be affecting mothers behaviour in child care during *golden period*.

#### IV. DISCUSSION

The objective of this research is to identify the effect of the first thousand days of life socialization program on the level of knowledge and behaviour of the mother in child care. The result shows that the average age of the exposed group was 30.58 years old, higher than the average age of unexposed group which was 29.16 years old. This clarify that higher age leads to better stability and maturity. Therefore, relatively higher age affects the positive behaviour which was joining the pregnant care in order to cooperatively join the first thousand days of life program.

Based on the result, the education level of the respondents in exposed group were 10% in junior high school level (SMP), 60% in senior high school level (SMA) and 30% in bachelor degree level (Sarjana). Meanwhile, the education level of the respondents in unexposed group were 20% in junior high school level, 70% in senior high school level (SMA) and 10% in bachelor degree level (Sarjana). This shows that the highest level of education (Sarjana) percentage was higher in exposed group than unexposed group. Level of education can increase knowledge in health. The more received information about health, the better knowledge in health acquired, so that people might be acting, behaving and obeying in certain health program (Potter, 2009).

The occupation of the respondents in exposed group were 21 respondents as household mother (IRT) and 9 respondents as civil servant (PNS), while in unexposed group were 26 respondents as household mother (IRT), 3 respondents as civil servant (PNS) and 1 respondent as entrepreneur. This shows that those in exposed group were 9 respondents as PNS and 21 respondents as IRT. Robert Kwick in (Notoatmodjo, 2010) revealed that behaviour was determined by central nervous system, perception, motivation, emotion, learnign process. Environment and occupation. Thus, respodents level of education is in accordance with mothers behaviour in first thousand days of life program.

Mothers knowledge about the first thousand days of life is crucial for this program is important in order to increase children health, particularly to avoid protein energy malnutrition (PEM), stunting and other related diseases.

The result of *chi-square* analysis shows significant value ( $p < 0.05$ ) which means there was a significant relationship between the first thousand days of life socialization program and mothers knowledge in child care.

Findings in this research is in accordance with the research by (Koka, 2014) about the effect of nutrition education to the students through lecture and discussion with the result showed the increment of knowledge and behaviour toward first thousand days of life from 3.9% to 64.7% for knowledge and significant change of behaviour.

Behaviour	Joined		Not Joined		Total	Statistic
	n	%	n	%		
Adequate	24	92,3	2	7,7	26	100
Inadequate	6	17,6	28	82,4	28	100

p = 0,015

Mothers who have had the counseling about exclusive breast feeding and colostrum during pregnancy period would have a better early breast feeding practice compared to mothers who have not had the counseling (Fauziah, 2009).

Socialization of the first thousand days of life is one of the primary health care actions in giving education through pregnant mother class to increase the quality of the mothers in taking care of their children. Education provided in pregnant mother class is a community education and a strategic action to elevate health status and make the first thousand days of life program achieved. This provided education could be a wholesome investment for the first thousand days of life program. According to (Desjardins et al, 1999) Antenatal check-ups are important for screening of high risk mothers, monitor weight gain during pregnancy, screen for anaemia, provide nutritional supplements that are vital for good pregnancy outcome, and help reduce and/or prevent maternal and neonatal complications and mortality. Studies have demonstrated that increasing number of ANC visits coupled with good quality ANC reduces the likelihood of having LBW babies.

First thousand days of life comprises of 270 days during pregnancy and 730 days after birth. This period is also called *golden period* as in this period, growth and development accelerate which need to be anticipated otherwise it could bring a permanent adversity (Achadi, 2014). The act of the first thousand days of life activity after giving birth including exclusive breastfeeding (individual and group) and continue breastfeeding until 23-month, behavioural change education to improve complementary feeding practice, zink supplementation, diarrhea management, anthelmintic drugs administration, iron fortification, and insecticidal mosquito net.

Based on *Chi-square* analysis, there was a significant relationship between the first thousand days of life socialization and mothers behaviour in child care ( $p < 0.05$ ). This confirms that respondents who joined the first thousand days of life program could have an improved behaviour in child care during *golden period*. Thus, it is crucial to have the mothers join the pregnant mother class by primary health care

which will provide the education about the first thousand days of life program in order to improve child nutrition and prevent any potential diseases.

Health education is a preventive approach to improve health behaviour. Education is expected to be able to change the behaviour to be better health status. Health education is a process of change to turn the individual, group and society into a better condition through a well-planned learning process (Machfod et al, 2009).

ALLPort (1945) in (Notoatmodjo, 2005) explained the components of behaviour are belief, idea and concept toward an object, evaluation on an object, intention to do certain action, accept the stimulus, feedback of a question or object, give positive response on an object or stimulus and responsible for their belief. Knowledge is one of the key behavioral changes. The mother's level of knowledge on exclusive breast milk and the appropriate age and stages of feeding of the MP, is influenced by several factors, such as exposure to health information, age, and the role of healthcare personnel in socializing information Health (Rahmawati et al, 2016).

Furthermore, (Khomsan et al. 2009) stated that knowledge is an important condition to achieve a good manner and behaviour. One of the approachments to improve behaviour is through giving education to increase the knowledge and manner to the better nutrition status.

The results in this study is in line with the theory which says that knowledge or cognitive is the most important domain in forming individual action. Through experiences and researches, it has been proofed that a knowledge based behaviour is more sustain than the opposite one. Even with economic barriers, provision of good quality health care can improve the health-seeking behaviour of people (Sarkar et al, 2013).

It is critical for policy makers to understand the prevalence of these diseases to plan healthcare interventions during pregnancy and early childhood in the community. (Genet Akal & Andualem, 2018).

## V. CONCLUSION AND RECOMENDATION

Based on the findings in this research, it can be concluded that first thousand days of life socialization program affects mothers knowledge and behaviour in child care.

It is expected that through the first thousand days of life program, all stakeholders has real perception, commitment and coordinated action in order to apply this program. Furthermore, all the stakeholders should create a planning and budgeting for first thousand days of life program in various levels such as national level, provincial level and regional level. For the succes of this program is determined by management in every administration level, beside systematic and comprehensive planning

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