

# Socio-demographic Factors and Kangaroo Mother Care (KMC) Practice among Mothers Who Had Low Birth Weight's Babies in Cilincing Village, Jakarta

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**Keywords:** Kangaroo Mother Care, Practice, Socio-demographic, Low Birth Weight's Babies.

**Abstract:** Kangaroo Mother Care (KMC) is early, continuous, and prolonged skin-to-skin contact between mother and newborn babies. Many factors affecting KMC practice among mothers at home. The purpose of this study was to assess the relationship between socio-demographic factors and KMC practice among mothers who had Low Birth Weights (LBW)'s babies. This was a cross-sectional study conducted in Cilincing village, North Jakarta. A sample of 30 mothers who had LBW's babies post-discharged from Koja Hospital, North Jakarta was selected for this study by consecutive sampling. The data were collected by questionnaires, interviews, and observation, and analyzed by Mann-Whitney U-test. The mean age of respondents was 31 years old, mean parity was 2 children, the majority of them were low education (64%), not working (100%), and distance to health services was less than 1 km (56%). The majority of respondents had bad KMC practice (76%). It was found that age had a statistically significant relationship with KMC practice among mothers who had LBW's babies ( $z=-2,263$ ,  $p\text{ value}<0,05$ , CI 95%). Bad KMC practice was due to younger mothers. The need for support from family, health workers, and community to increase KMC practice among LBW's babies' mothers at home.

## 1 INTRODUCTION

Neonatal mortality is a major challenge in reducing child mortality rates in many developing countries. Data from the Indonesian Demographic and Health Surveys (National Population and Family Planning Board, 2013) show a slower rate of decline of Neonatal Mortality Rate (NMR) than Infant Mortality Rate (IMR) and Under-five Mortality Rate (UMR). The majority of child mortality was occurred during the neonatal period, largely due to low birth weight (LBW) and prematurity (28%) and severe infections (26%) (Lawn et al., 2015). LBW infants will be at risk for infectious diseases, delays in growth and development, and death during childhood (Soleimani et al., 2014; Ballot et al., 2012).

One of the efforts to care for LBW infants is Kangaroo Mother Care (KMC). The main purpose of KMC is to take care of the infants' temperature by skin-to-skin (STS) contact between mother and infant (WHO, 2003). Some studies show that KMC is beneficial for improving breastfeeding, increase

the bond between mother and infants, weight gain, increase body length and head circumference, decrease hospital stay, and increase survival rate (Sloan et al., 1994; Charpak & Ruiz-pela, 2000; Charpak et al., 2017).

The practice of KMC usually starts at the hospital and continues at home after LBW's babies discharge from the hospital (with supervision by the local health officer). But the difference between hospital and home conditions makes KMC practice less optimal to be implemented at home. In hospitals, mothers get adequate facilities and good supervision from health workers, so that they can practice KMC optimally. At home, there are many obstacles in the implementation of KMC such as housework, taking care of other children, and family support (Maras et al., 2010; Quasem et al., 2003; Nguah et al., 2011). The success of KMC practice at home is influenced by local conditions in the home and community.

Studies on KMC perceptions and practices in hospitals in Jakarta have been conducted, one of which was carried out in Koja Hospital, North

Jakarta (Bergh et al., 2018). The study assessed perceptions and practices of KMC among LBW's babies' mothers who were hospitalized and produce a referral system between hospital and primary healthcare to pick up and deliver LBW's babies' mothers to their home. However, the perceptions and practices of KMC among LBW's babies' mothers after discharged from Koja Hospital, North Jakarta are not yet known. There are many factors will affect KMC practice among LBW's babies' mothers at home, such as mothers, infants, family, health workers, and community factors. The aim of this study was to assess the relationship between socio-demographic factors and KMC practice among LBW's babies' mothers in Cilincing village, Jakarta.

## 2 METHOD

This study was a cross-sectional design, conducted in Cilincing village, North Jakarta. A sample of 30 mothers who had LBW's babies post-discharged from Koja Hospital, North Jakarta was selected for this study by consecutive sampling. The dependent variable was KMC practice and independent variables were maternal age, education, parity, working status, and distance to health services.

The data were collected by questionnaire, interview, and observation. A questionnaire was used to identify socio-demographic factors and interview and observation was used to explore KMC practice. The data were analyzed by Mann-Whitney U-test.

## 3 RESULTS

The study was to assess the relationship between socio-demographic factors and KMC practice among mothers who had LBW's babies.

### 3.1 Socio-Demographic Factors of LBW's Babies' Mothers

The mean age of respondents was 31 years old, mean parity was 2 children, the majority of them were low education (64%), not working (100%), and distance to health services was less than 1 km (56%).

### 3.2 Practice of KMC among LBW's Babies' Mothers

All of LBW's babies' mothers in this study were continue to practice KMC at home with a mean

duration of KMC practice is 3 hours a day. But none of LBW's babies' mothers who practiced KMC continuously for 24 hours a day. The majority of the mothers were practiced KMC in the morning and night.

Based on the observation, the majority of LBW's babies' mothers in this study was practiced KMC inadequately. They were not practiced KMC with the correct position. The majority of LBW's babies' mothers were practiced KMC with the position neither the baby's head was not turned left or right with the position of a slight look, nor the hands and feet of the baby in a bent position like a frog. Some of them are not confident in practicing KMC and let their family practice KMC.

### 3.3 Relationship between Socio-Demographic Factors and KMC Practice

Younger mothers (Mean=29,26, SD=7,17) were likely to practice bad KMC than older mothers (Mean=36,50 SD=4,04). It showed in the table below.

Table 1: Relationship between Socio-Demographic Factors and KMC Practice.

Age	KMC practice	N	Mean	SD
	Bad	22	29,26	7,17
	Good	8	36,50	4,04

Based on Mann-Whitney U-test, it was found that age had a statistically significant relationship with KMC practice among mothers who had LBW's babies ( $z=-2,263$ ,  $p \text{ value} < 0,05$ , CI 95%).

## 4 DISCUSSION

This study showed the practice of KMC after LBW's babies' mothers discharge from hospital and factors associated with it. All of them were practiced KMC at home and the mean duration of KMC practice was 3 hours a day. But none of LBW's babies' mothers who practiced KMC continuously for 24 hours a day. This study is similar to another research in Ghana (Opara, PI & Okorie, 2017), in which none of the mothers carried out KMC continuously after being discharged from the hospital. The practice of KMC in the community was also reported from other studies, which showed that LBW's babies' mothers accepted the method for

the treatment of their LBW's babies (Opara, PI & Okorie, 2017; Rasaily et al., 2017)

Based on the observation, the majority of LBW's babies' mothers in this study was practiced KMC inadequately. The correct position of KMC is that there is a direct skin-to-skin contact between mother and baby, the baby's head is turned left or right with a slight nape, and the baby's hands and feet are bent like a frog. However, the majority of LBW's babies' mothers in this study was practiced KMC with the position neither the baby's head was not turned left or right with the position of a slight look, nor the hands and feet of the baby in a bent position like a frog.

This study is consistent with a study in India (Ramaiah, 2016) that the majority of mothers had moderate practices of KMC (76.66%) and others had good practices (23.33%). The practice was correlated with the mother's knowledge that the majority of them had a lack of knowledge (65%).

Based on Mann-Whitney U-test, it was found that age had a statistically significant relationship with KMC practice among mothers who had LBW's babies. In this study, younger mothers were likely to practice KMC inadequately than older mothers. This was due to age-associated with the information and knowledge that the mother has. Older mothers are more open, had received health information, and experienced related to health practices. This will affect a mother's decision to perform an action. The more mature mothers, the more mature their minds to act.

Behavior is a response to the stimulus which influenced by many factors, including personal characteristics. Factors influencing behavior divided into internal factors and external factors. Internal factors are factors that come from within the person, such as age, sex, etc., and the external factors come from outside the person, such as physical, social, cultural, economic, political and other environments (Notoatmodjo, 2007).

Similarly, another theory (Green, 1999) said that behaviors are determined by three groups of factors, namely predisposing factors that include individual knowledge, attitudes, beliefs, traditions, social norms and other elements contained within individuals and communities; enabling factors that is availability of health services and facilities; and reinforcing factors that are health worker attitudes and behaviors.

This study is consistent with the Theory of Reasoned

(Fishbein & Ajzen, 2010) that behavior is determined by the intention which influenced by

external variables such as socio-demographic characteristics including age. Therefore, age was one of the background factors indirectly related to behavior.

Based on Social Cognitive Theory (Bandura, 1962), socio-structural is one of the factors that influence behavior. The theory is based on the belief that behavior results from continuous interactions among environment, individual and behavior. Another theory from the Health Belief Model (Rosenstock, 1974) discusses that personal characteristic including age is modifying factors who will modify individual perceptions that will affect behavior.

This study is consistent with another study in Ethiopia (Yusuf et al., 2018) that maternal age was associated with the utilization of KMC practice, in which mothers aged 25-29 years old were likely to practice KMC than mothers aged 30-34 years old. The study also showed that maternal status, maternal occupational, educational status, gestational age, and the number of deliveries were not associated with the utilization of KMC practice ( $p > 0,05$ ). Similar to another study in India (Ramaiah, 2016) that socio-demographic factors including age were related to knowledge and KMC practice.

The result of this study is inconsistent with study in Sudan (Meseka et al., 2017), where socio-demographic characteristics were not related to knowledge and newborn care practice, including skin-to-skin contact. Similar to another study in Nepal (Chaudhary et al., 2018) that type of family, place of living, religion, age, occupation, and monthly income were not related to knowledge and KMC practice.

## 5 CONCLUSIONS

This study showed that age had a statistically significant relationship with KMC practice among mothers who had LBW's babies in Cilincing village, Jakarta. The need for support from family, health workers, and community to increase KMC practice among LBW's babies' mothers at home.

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