



The Analysis of Kangaroo Mother Care Implementation at Public Health Center in Indonesia

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ABSTRACT

Background: Infant mortality is one of the sensitive indicators to know the degree of health of a country and even to measure the level of progress of a nation. The Low Birth Weight Babies (LBW) are the highest cause of infant mortality in Depok until it reaches 81 cases in 2019. One of the efforts made by public health office to reduce the infant mortality rate is to use Kangaroo Mother Care. This research aims to analyze the implementation of Kangaroo Mother Care Program in public health center in Depok, Indonesia.

Methods: The method of study is qualitative with purposive sampling approach.

Result: The results showed that the informants were not aware of the existence of Mayor Regulation Number 89 year 2020 regarding Kangaroo Method Care. Health workers do not yet have sufficient knowledge about the implementation of the Kangaroo Method of Care. The implementation of the Kangaroo Method of Care is still not supported by complete facilities. Human Resources is also still inadequate.

Conclusion: The conclusion of this research is the Kangaroo Method Care program has not run optimally. There needs to be an effort to improve the implementation of the Kangaroo Method Care program at the public health center.

Keywords: *Kangaroo Mother Care, Implementation, Public Health Center*

INTRODUCTION

Newborns have the highest risk of death in the first 28 days. In 2019, 6,700 newborns died every day in the world.¹ Low Birth Weight is a baby's weight at birth of less than 2500 grams². One of the biggest causes of newborn mortality is low birth weight which is a serious problem that can threaten life expectancy and quality of newborns³. Several factors that influence LBW are maternal age, mother's education, ANC visits and pregnancy complications⁴.

Low birth weight babies are prone to hypothermia because the subcutaneous fat is thin so it is easily influenced by environmental temperature. Generally, babies with low birth weight should be treated in an incubator, but there are still many hospitals that lack the availability of incubators while the incidence of nosocomial infections in LBW who are hospitalized is quite high. In addition, it also requires high costs⁵. Therefore, a more effective and efficient replacement method is needed.

Kangaroo Method of Care is a safe and effective method of treating low birth weight and premature infants and contributes to the reduction of premature infant mortality in low and high income countries even when compared to infants receiving conventional care, those treated using Kangaroo Method Care. tend to show more stable body temperature, increased body weight, length, and head circumference, increased breastfeeding and a stronger bond between mother and child⁶. The World Health Organization reveals that the Kangaroo Method of Care is contact from the mother's skin to the baby's skin that is carried out since the newborn and is carried out continuously⁷. There are three important components in the implementation of the kangaroo method of care, namely exclusive breastfeeding, early discharge after from the hospital with continuation at home and adequate support and follow-up for mothers at home⁸.

In its implementation, several inhibiting factors are often found, such as inadequate facilities, lack of skills possessed by health workers, and social norms⁷. Strengthening the availability and quality of services and training of health workers is one of the efforts so that the use of the Kangaroo Method of Care can be achieved properly and carried out sustainably at the household level⁹. Training on Kangaroo Method Care can be included in the curriculum of health workers. The provision of facilities that support Treatment Methods in the relevant rooms also needs to be considered. A firm and clear policy and strategy is also needed as well as direct involvement by relevant stakeholders^{6,10}.

Based on data from the Depok Health Office, it is stated that the case of Low Birth Weight Babies (LBW) is the cause of the highest death rate in the city of Depok. The infant mortality rate increased in 2019 with 81 infant deaths in Depok with the highest cause being LBW. Other causes are asphyxia, infection,

lactation problems, facilities or accessibility factors, and health services from skilled medical personnel. In 2019 the number of neonatal, infant and child deaths due to LBW in Depok Health Center or *Pusat Kesehatan Masyarakat (Puskesmas)* was 22. Meanwhile, the number of LBW at public health center in Depok was 385 babies¹¹.

Basic Emergency Neonatal Obstetrics Services or *Pelayanan Obstetrik dan Neonatal Emergensi Dasar (PONED)* is a service to deal with emergency cases of neonatal obstetrics. PONED is carried out at the main health center under the supervision of a doctor and receives referrals from health personnel or health facilities at the village or community level who refer to hospitals. The health center that serves PONED is the main health center which is an inpatient health center that is on standby for 24 hours.

There are many factors that influence the number of infant deaths but it is not easy to determine which factors are the most dominant and which are less dominant. Based on these problems, researchers are interested in analyzing the implementation of the Kangaroo Method Care Program at the PONED Health Center in Depok City.

METHODS

This study uses a qualitative approach that produces descriptive data regarding the implementation of the Kangaroo Care Method program. The study was conducted at one of the PONED Health Centers in Depok City, West Java Province which was carried out in June 2021 by utilizing zoom video conference media as an effort to prevent the spread of COVID-19.

Data was collected by means of in-depth interviews and focus group discussions. The informants in this study were six health workers who were selected through purposive sampling method. Informants consist of midwives

who focus on handling LBW cases at the PONED Health Center as well as other health workers such as health promotion workers and the head of the public health center.

All data that has been collected through in-depth interviews and group discussions were transcribed into a qualitative matrix based on the variables asked. Research ethics uses the Declaration of Helsinki as a statement of ethical principles for medical research involving humans. Prior to data collection, all informants were given and filled out informed consent and signed an informed consent form.

RESULTS

There were six informants involved in this study. It consists of a coordinating midwife, three midwives, a health promotion worker, and the head of the public health center. All informants are female and aged around 20-50 years with an average Diploma education. The length of work of informants at the public health center varied from 6 months to 2 years.

Based on the results of in-depth interviews and group discussions with the informants, it is known that the majority of the informants do not have sufficient knowledge about the implementation of Kangaroo Care Method. The questions asked were about the meaning of Kangaroo Care Method, how it was implemented, and the services provided. The majority of informants know and have heard that the Kangaroo Method of Care is carried out in cases of births with Low Birth Weight (LBW). However, it is still not possible to explain in detail about the components in the implementation of the Kangaroo Method of Care. Until now, the informants have never handled LBW cases at the public health center.

“Kangaroo mother care is usually performed on babies born with low birth

weight. One of the uses is to prevent hypothermia”. (1)

“...what I know about this Kangaroo mother care is the care that mothers do when giving birth to babies through their arms to give IMD and breastfeed.”(2)

“Methods for caring for underweight babies involving parents or family.”(3)

According to the informant, the Health Office and the public health center have never held special training on Kangaroo Method Care, so they have never attended special training on Kangaroo Method Care.

“For training on PMK, as long as I was a coordinating midwife, I had never been at the puskesmas or at the Health Office”.

(4)

“special skills or knowledge given about PMK through training at the puskesmas or health office I have never received it”.

(5)

According to the informant, the training that had been carried out was regarding neonates, but the health workers who were included in the workshop were carried out in rotation so that all health workers at the public health center could take part in the workshop activities.

“there was a general training on midwives, last March there was a PPGDON (Obstetric and Neonatal Emergency First Aid Training training)”

(4)

It is known that supporting facilities in implementing the Kangaroo Method of Care at the public health center such as kangaroo clothes, thermometers, baby scales, and incubators already exist. However, according to the informant, the availability of kangaroo clothes is still lacking because there are only two of them and sometimes they are borrowed by other health centers.

“for support we have kangaroo clothes but only 2 and it is not optimal to provide PMK because these clothes like to be borrowed by other health centers too who need it”(4)

In addition, the availability of leaflets or posters containing information on the Kangaroo Care Method is not yet available.

“For socialization such as leaflets, such facilities do not yet exist”(1)

Based on the results of the study, it was shown that the number of human resources at the public health center was 72 people and 8 midwives who were devoted to Poned. According to the informant, the current number of human resources is still not sufficient. This can be seen from several health workers who have double jobs.

“the number of civil servants and non civil servants is 72. For the Poned section there are 8 dedicated midwives. For cadres, I don't know the exact number but each posyandu has 10 cadres, our posyandu has 44.” (3)

According to informants, the amount currently available is still not enough *“I think we still lack people, especially since the pandemic, many have double jobs”* (4)

Based on the results of in-depth interviews and group discussions with six informants, it was found that four of the six informants stated that they were not aware of any regulations regulated in the guardianship regarding Kangaroo Care in Depok City and had never received socialization about the guardianship. Two other informants stated that they had heard of Perwali No. 89 of 2020 regarding the implementation of Kangaroo Care in Depok City but do not know in detail the contents of the regulation. Here are some excerpts from answers by informants.

“I'm not aware of this policy”. (5)

“I've heard about this guardian but I've never seen the contents of the guardian”. (6)

DISCUSSION

Kangaroo method of care for infants with LBW or premature can prevent various morbidities in Low Birth Weight Babies and increase trust and a close bond between mother and baby¹².

Based on the results of the study, it is known that the informants know that the Kangaroo Method of Care is a skin to skin contact method carried out by mothers to their babies. This is in accordance with the definition of the Kangaroo Treatment Method itself which states that the essence of this method is skin to skin contact. However, there are several additional components such as exclusive breastfeeding and going home from the health service center⁸. This apparently escapes the knowledge of health workers at the Poned Health Center.

Exclusive breastfeeding, which is the key in Kangaroo Care Method, is often neglected¹³. Based on the findings in a study conducted in Indonesia, it is known that babies with low birth weight are given formula milk¹⁴. The low level of exclusive breastfeeding is an inhibiting factor in the implementation of the Kangaroo Method of Care¹⁵. Another main key is the continuity of Kangaroo Method Care after returning from the health service center which according to research did not find any mothers with LBW babies who continued¹⁴.

Knowledge is often found to be one of the many inhibiting factors in implementing Kangaroo Method Care in various health services¹⁶. Knowledge of health is very important to have because without knowledge people tend not to be able to make the right decisions¹⁷. In addition, theoretical knowledge allows Health workers to carry out a precise situation analysis¹⁸. According to research conducted at Koja Hospital, the majority of midwives and nurses in the delivery room had low knowledge of Kangaroo Method Care⁶. The same thing was also found in another study conducted at four hospitals in Central Java in 2019 which stated that the knowledge of health workers in Central Java was still low, especially regarding the effects and consequences that would result from the implementation of the Kangaroo Method of Care for LBW¹⁹. Another study that

took place in Tamale, Ghana also stated that the knowledge of health workers about the Kangaroo Method of Care was still low which caused the implementation of the Kangaroo Method of Care to be less effective in the area²⁰.

According to the informant, this ignorance was caused because the majority of the informants had never implemented the Kangaroo Method of Care. According to research conducted on NICU nurses at a hospital in Riyadh, Saudi Arabia, it was stated that the good level of knowledge could be influenced by the frequent implementation of the Kangaroo Method of Care²¹. Good knowledge can help Health workers to practice Kangaroo Method Care to the fullest¹⁹.

In addition to the knowledge factor, other supporting factors manifested in the physical environment such as training, infrastructure, and the availability of human resources also contribute to influencing the behavior of health workers in implementing the Kangaroo Method of Care²². Training is often seen as an important thing to do to support the practice of implementing Kangaroo Care by Health workers¹⁶. Proper training will meet the needs and ensure that health workers are motivated to implement the Kangaroo Method of Care²³. The training has proven to be able to increase the knowledge of Health workers regarding Kangaroo Method Care³. In addition, other studies reveal that conducting training will also improve the implementation of Kangaroo Care Method⁷.

Based on the results of the study, it was found that the informants had never participated in special training regarding the Kangaroo Care Method. The same thing also happened in other parts of Indonesia, precisely in Musi Rawas, South Sumatra where the majority of the midwives there had never attended Kangaroo Method Care training. The small number of health workers

participating in the training could be due to the fact that the Kangaroo Method Care training is often held for a fee²⁴. The cost of the Kangaroo Care Method training is IDR 2,000,000²⁵. Not only in the regions, even in big cities like Jakarta, there are still few health workers who have attended training on the Kangaroo Method of Care⁶. According to research conducted in several low to middle income countries, it is known that the majority of these countries face the same problem, namely the lack of training provided to health workers¹⁶.

Training on Kangaroo Care Method can be done through online training, workbooks, videos, and informative posters²⁶. The training may cover topics on the meaning and benefits of Kangaroo Care, improving skills, how to feed babies who cannot get breast milk, coordination at the public health center management level, and preparation for implementation²⁷.

According to the informant, it is known that the kangaroo clothes in the public health center are often borrowed by other health center in the Depok city area. This is actually not a big problem because there are no special clothes to wear when doing the kangaroo method²⁷. However, according to another study, it was stated that the unavailability of kangaroo clothes was one of the many inhibiting factors in the implementation of the Kangaroo Care Method²⁸. The provision of supporting facilities and infrastructure for the Kangaroo Method of Care in Depok City is still not really adequate and regulations are needed so that they can be available in all health care centers²⁷. Several previous studies also stated the same thing¹⁶.

Challenges regarding the availability of human resources and increasing workloads are obstacles in various countries in implementing the Kangaroo Care Method²⁹. At the health system level, strong leadership is needed to minimize barriers in many ways to the implementation of kangaroo care at the

public health center level¹⁶. Mainly to motivate and ensure consistency of implementation practices¹⁸. However, several other studies have revealed that the implementation of the Kangaroo Method of Care is not believed to be a workload for health workers²⁶.

Active and massive socialization is needed so that health workers, especially those who work in public health center can know and implement the Mayor Regulation (Perwali) No. 89 of 2020 concerning the proper implementation of Kangaroo Treatment in Depok City. Ignorance of the existence of a Kangaroo Method of Care policy also occurs in health workers in the central and southern states of Malawi³⁰. Barriers such as ignorance of guidelines and policies and protocols regarding Kangaroo Method Care are common among health care providers. This can be minimized by good communication between policy makers and health workers¹⁶.

CONCLUSION

Kangaroo method of care as a method of care for infants is a practical and inexpensive method to be applied by the community, especially for low birth weight babies (LBW). Babies with LBW cases really need warmth and this method is able to provide warmth to babies through their parents' bodies. In Depok City, the implementation of Kangaroo Method Care has been written through Mayor Regulation No. 89 of 2020 concerning Kangaroo Method Care.

The majority of health workers at the Poned Health Center know about the Kangaroo Method of Care, but its implementation is still not optimal. It can be seen from the lack of socialization, the limited supporting facilities, the lack of training attended by health workers, and the low knowledge possessed by health workers.

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