



The Effectiveness of Using Maternal and Child Health (MCH) Handbook through the 40 Days CARE Method for Independently Prevention of Postpartum Complications

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ABSTRACT

The puerperium is the period after delivery up to 40 days when the reproductive organs recover. Postpartum services according to standards are provided to mothers and newborns from 6 hours to 42 days after delivery at least three times through home visits for early detection, treatment, or referral of complications that may occur during the postpartum period, as well as provide an explanation about health in general. One of the efforts made by the government is to procure MCH Handbook equipped with important information for mothers and babies, including screening for early detection of complications. Cadres will assist mothers in maximizing the utilization of MCH handbooks in the obedience of postpartum mothers to carry out postpartum visits, independent screening media for complications of the postpartum period and sources of receiving informational educational counseling during the postpartum period. This study aimed to analyze the effectiveness of using MCH handbook through the 40 Days CARE method for independently preventing complications in postpartum mothers. The design used was the Pre-Experiment (One Shot Case Study) with a sample of 30 respondents using a purposive sampling technique. Data collection used a questionnaire. Data analysis used T Test ($\alpha = 0.05$). The results showed p value of 0.000, which means that there was an effect of using MCH handbook through the 40 Days CARE method on independently preventing complications in postpartum mothers. Based on this result, it is known that postpartum assistance has an influence and is effective in increasing the mothers' independence in detecting and preventing postpartum complications, so the consistency in postpartum assistance and outreach to health cadres regarding this activity are badly needed.

Keywords: MCH Book, Cadres, Postpartum, 40 Days CARE

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INTRODUCTION

Healthy and fit throughout a woman's life cycle is a manifestation of a high quality of life for a woman. Maternal Mortality Rate (MMR) is a measure of health status in a country¹. Maternal mortality and morbidity are still a big problem in Indonesia where one of the causes of this high number is complications in pregnancy, childbirth and the puerperium that are not handled properly and in a timely manner².

Currently, the maternal mortality rate has decreased but is still far from the target set in the Sustainable Development Goals (SDG's) of 70 per 100,000 live births in 2030. Despite many efforts made by the government, the MMR has not decreased significantly. Approximately 60% of maternal deaths occur postpartum and 50% occur in the first 24 hours of the puerperium. This is because the postpartum period is a critical period for a woman and her baby. Mothers are not only focused on caring for themselves but also for their babies, so that without support and attention from the environment, the burden of mother's responsibilities during the postpartum period will become increasingly heavy, causing complications and problems during the postpartum period. In Indonesia, as many as 11.4% of mothers experience postpartum complications³.

A study by Cabero-Roura & Rushwan's (2014) stated that mothers, families and communities are not aware of the risks that occur during the postpartum period. Maternal health investment is not yet a priority with low resources. Therefore, competent experts are needed in caring for postpartum mothers at home. Theoretical care approaches that can be carried out for postpartum mothers such as accompanying cadres for 40 days during the postpartum period⁴. Midwives have an important role in promotive and preventive aspects aimed at improving public health and knowledge. Services performed by midwives during the postpartum period can be carried out by home visits to provide general health education, assist the recovery process of mothers and babies and screen for early detection of discomfort or complications that can occur during the postpartum period⁵. The postpartum service is at least 3 times starting from 6 hours up to 42 days postpartum including twice giving vitamin A to preparing or using contraceptives after delivery⁵.

Various efforts have been made by the government to improve the mothers' welfare, one of which is the procurement of Maternal and Child Health (MCH) handbook to identify and monitor the health of mothers and children from pregnant women to children aged 5 years. The MCH Handbook was launched by the Indonesian government in 1994 and can be used by all provinces in Indonesia⁵. After going through various evaluations and developments, in 2020 the latest revision of MCH Handbook was published in which it is not only equipped with important information that must be known during the puerperium and breastfeeding, but the government also complements it with efforts to screen for early detection of complications. The MCH handbook is used as a medium for recording maternal and child health, monitoring tools, screening for complications and communication between

health workers and clients in conveying important information for mothers, families and the community, which consists of MCH services, nutrition, immunization, and growth and development of toddlers^{2,5}.

Up to now, the use of MCH handbook is still limited to pregnant women, daily care for babies and monitoring the growth and development of toddlers. The monitoring phase that is often overlooked is the use of MCH handbook during the postpartum period. The results of Noviyanti & Gusriani's research (2021) stated that positive perceptions were obtained from postpartum mothers in reading and families who accompany mothers to read MCH handbook and midwives who motivate mothers to use MCH books. This positive perception must also be supported by the active involvement of midwives and health cadres to keep the postpartum mother's health monitored by MCH handbook⁶.

The 40 Days CARE method is a method that empowers cadres to assist, remind, and evaluate the optimal recovery achievements of postpartum mothers by carrying out early detection screening for 40 days during the postpartum period. In the 40 Days CARE method, cadres will accompany mothers to maximize the use of MCH handbook in compliance with postpartum mothers to carry out postpartum visits, independent screening media for complications and sources of receiving informational educational counseling during the postpartum period. The concept of this method adopts the implementation of Integrated Postpartum Services⁷. Research conducted by Sustini F et al (2003) showed that monitoring of postpartum mothers was associated with the incidence of postpartum morbidity because it could detect complaints or discomfort during the postpartum period so that if the implementation of monitoring was not good, the risk of morbidity in mother can increase⁸. Therefore, the use of MCH handbook as a medium for information on maternal and child health, monitoring the health and development of children is very important. Evaluation of the effectiveness of using MCH handbook was carried out by filling out questionnaires by postpartum mothers after applying 40 Days CARE method during the postpartum period. This study aimed to analyze the effectiveness of using MCH handbook through the 40 Days CARE (Cadre in Accompany, Remind and Evaluation) method for independently preventing complications in postpartum mothers.

METHOD

The research design was pre-experimental (one shot case study). The research was carried out in the Working Area of Klatak Public Health Center from August to November 2022. The population was all postpartum mothers with the sample was postpartum mothers who met the inclusion and exclusion criteria for assistance during the postpartum period with a total of 30 postpartum mothers who were selected using a purposive sampling technique. The method used was providing assistance to postpartum mothers for 40 days by cadres referring to the 40 Days CARE method. The variables in the study were the use of MCH handbook through the 40 Days CARE method and independent

prevention of complications. Instruments in collecting data used a questionnaire. Data were analyzed using the T Test ($\alpha = 0.05$) which had previously been tested for normality with normal data distribution results.

RESULTS

Table 1. Respondent Characteristics

Characteristics		Frequency	Total (%)
Age	< 20 years	1	3,3
	20-35 years	27	90
	> 35 years	2	6,7
Education	Basic Education	6	20
	Secondary Education	18	60
	Higher Education	6	20
Activities	Housewife	25	83,3
	Self-Employed	3	10
	Job Government Employees	2	6,7
Parity	Primipara	14	46,7
	Multipara	16	53,3
	Grande multipara	0	0

The age characteristics of respondents in this study found that almost all respondents were in the age range of 20-35 years with a total of 27 people (90%), 1 respondent aged <20 years, namely 17 years and 2 people > 35 years with the oldest age were 39 year. In terms of educational characteristics, most of them were in secondary schools (junior and senior high schools) with a total of 18 people (60%). Regarding the characteristics of mother's job, almost all respondents were housewives with a total of 25 people (83.4%). Characteristics of parity in respondents, more than half were multiparas as many as 16 people (53.3%) with 5 of them having 3 children.

Table 2. Distribution of Respondents based on Utilization of MCH Handbook and Prevention of Complications Independently

Variable		Frequency	Total (%)
Utilization of MCH Handbook	Good	9	30
	Sufficient	14	46,7
	Deficient	7	23,3
Independent Prevention of Complications	Good	9	30
	Sufficient	19	63,3
	Deficient	2	6,7

Table 2 showed the results of providing interventions through 40 Days CARE method for

postpartum mothers. In using MCH handbook, the results showed that 14 respondents (46.7%) used MCH handbook sufficiently, and 19 respondents (63.3%) were quite able to independently prevent complications during the postpartum period.

The results of statistical tests using the T test obtained p value of $0.000 < 0.05$, which means that the use of MCH handbook through the 40 Days CARE method is effective for independently preventing complications in postpartum mothers in the Working Area of Klatak Public Health Center.

DISCUSSION

The Use of MCH Handbook through the 40 Days CARE Method

Based on the research results, it was found that 14 (46.7%) mothers used MCH handbook quite well, 9 mothers (30%) made good use of it, and 7 mothers (23.3%) less use of MCH handbook. The MCH handbook is a book that contains information sheets, health and special notes on abnormalities in the mother during pregnancy, childbirth, after childbirth, and children (fetuses, newborns, infants and children up to 6 years old), as well as various information on how to care for the mother's health and child. The information is very important to use for health monitoring and special records of abnormalities in mothers and children⁹. The MCH Handbook is an instrument that has been tested as an intervention to improve the quality of Antenatal Care services and the scope of MCH services, especially in the aspects of primary health services. The World Health Organization (WHO) recommends that every pregnant woman have a personal health record during pregnancy which aims to improve continuity, quality of care and pregnancy experience¹⁰. Procurement of MCH handbook is one of the efforts made by the government in terms of monitoring the health of mothers and children to reduce mortality and morbidity.

Based on the research results, all respondents (100%) thought that MCH handbook must be read by mothers, husbands, and other family members because it contains useful information for the health of mothers and children. This positive response can support the achievement of objectives in using MCH handbook during the postpartum period which includes: (1) the postpartum mother and family must understand the danger signs during the postpartum period which can be seen in the MCH Handbook. If there is a risk/sign of danger, it is necessary to check with a health worker. (2) Postpartum visits (KF) are carried out according to schedule. These two things will be carried out optimally if the mother is able to use MCH handbook properly. Noviyanti and Gusriani's research (2021) stated that a well-utilized MCH handbook can have a positive impact on increasing mother's knowledge. The function of MCH handbook is as a medium of communication through recording of pregnancy, childbirth, postpartum, vaccines, child growth and development, and clinic visits. In addition, the MCH handbook has a function as an information medium to increase awareness of the importance of maternal and child health⁶.

During the postpartum period, the mother is not only focused on her own recovery, but also on

the development and health of her baby. Health workers must play an active role in assisting mothers in using MCH handbook to increase mothers' knowledge about their health during the postpartum period. Health workers or cadres are expected to be able to explain and ensure that mothers understand the information in the MCH handbook in order to optimize the use of MCH handbook¹¹. It can be done when midwives make postpartum visits or when cadres provide assistance for 40 days through the 40 Days CARE method.

In this study, it was found that 28 respondents (93.3%) always carried the MCH handbook every time they visited a health care facility. This is in line with Ningsih's research (2018) which stated that midwives and cadres are responsible for reminding mothers to always carry the MCH handbook when carrying out routine checks at public health center or other health facilities¹². This statement is in accordance with the technical guidelines for using the MCH handbook (Indonesian Ministry of Health, 2016) that health workers have duties and responsibilities in providing information related to maternal and child health services, recording the examinations results of pregnant women and children, and providing an explanation of the information contained in the MCH handbook and reminding mothers to always carry and maintaining the MCH handbook properly until the child is 6 years old¹³.

Independent Prevention of Complications in Postpartum Mothers

The prevention of complications independently in postpartum mothers is mothers who can carry out early detection of complications that occur during the postpartum period and can make decisions about the care needs to be obtained. Based on the research results, it was found that 19 (63.3%) mothers were quite good at preventing complications independently during the postpartum period. Postpartum mothers can detect early signs of danger during the puerperium, including bleeding from the birth canal (86.7%), smells and itches vaginal discharge (70%), fever >38°C (70%), pain and unable to urinate (70%), dizziness, blurred vision and heartburn (66.7%), difficulty concentrating (56.7%), as well as chest pain, shallow, and fast breathing (53.3%). In addition to recognizing these danger signs during the postpartum period, the postpartum mothers can also make decisions for themselves, such as: asking for help from a health cadres or health workers and immediately getting a check-up at the nearest health worker or health facility.

Postpartum mothers experience physiological and psychological changes as a process of adaptation and recovery after childbirth. Postpartum mothers and their families must have basic knowledge about the puerperium, so if problems or disturbances occur during the puerperium they can be detected early and get the right treatment. Information regarding treatment and recognition of danger signs during the puerperium can be accessed in the MCH, but unfortunately its utilization is still not optimal. The research by Kunang, et al stated that the use of MCH books was lacking and most postpartum mothers did not understand the danger signs of the postpartum period¹⁴. In line with the findings of Nithya, et.al that lowest knowledge is on postpartum danger signs¹⁵.

The ability of postpartum mothers to independently prevent complications can be influenced by age, parity, education and occupation. Most of the respondents have secondary education (junior and senior high school) and are multipara. Education and experience make a positive contribution in increasing knowledge of recognizing the danger signs of the puerperium and decision making. Although most of the postpartum complications' prevention is at an adequate level, there are points that need attention, namely the lack of understanding about sleep disorders (16.7%), swollen breasts and how to handle them (26.7%), foul-smelling discharge (40%), as well as signs and symptoms of tuberculosis (46.7%). In this case, midwives have very important role in providing information to increase mother's knowledge about puerperal danger signs so that they can independently detect discomfort and complications in the mother and baby during the puerperium period¹⁴.

The Effectiveness of Using MCH Handbook through the 40 Days CARE Method for the Independently Prevention of Complications in Postpartum Mothers

The research results indicated that the use of MCH handbook through 40 Days CARE method is effective for independently preventing complications in postpartum mothers. This was shown from the results of statistical tests using T-test where a Sig value of 0.000 was obtained, which means that H₀ was accepted. It means there was an effect of using the MCH handbook through the 40 Days CARE method on preventing complications independently in postpartum mothers.

Postpartum complications can be prevented by postpartum mothers, one of which is through the correct use of MCH handbook. Procurement of MCH book which had been programmed by the government since 2007 was one of the government's strategies to reduce the high MMR and IMR at that time. The government hopes that by holding the MCH handbook and then duplicating and disseminating it to all levels of society, it will have very significant impact on the incidence of MMR and IMR. The MCH handbook itself contains various information about danger signs and complications that may occur during the puerperium, so if the MCH handbook is used properly by postpartum mothers by reading it, the various education contained in it will make them recognize early if complications occur during their puerperium and able to do preventions so as not to arise complications during the puerperium.

The 40 Days CARE method is a mentoring process carried out by cadres for 40 days during puerperium in which cadres not only accompany but also remind and evaluate them regarding the use of MCH handbook during the postpartum period both as documentation of the health history of the mother and baby, as well as a source of information on danger signs that may appear during the postpartum period so that postpartum mothers are able to make prevention independently so that complications do not arise during the puerperal process. This can be seen in the mothers who used the MCH handbook adequately to well (76.7%) and had a good ability to prevent complications independently (63.3%). This is in line with what was revealed by Hagiwara et al (2013), the correct use of the MCH Handbook will have an impact on increasing knowledge of mothers and families on

maternal and child health, this will empower people to live healthy as well as increase people's access to quality health services and improve surveillance, monitoring, and health information systems¹⁶.

Other research showed that the higher the utilization of MCH handbook, the higher the level of knowledge and behavior of maternal health, where one of the behaviors that postpartum mothers can do is to independently prevent complications during the postpartum period, such as being able to recognize the danger signs of the postpartum period early so that the postpartum mother is able to immediately take follow-up action before complications occur during the puerperium, such as carrying out actions to make contact as soon as possible with a health worker if during the puerperium they show any signs of danger as stated in the MCH handbook.

CONCLUSION

The assistance for postpartum mothers has an influence and is effective in increasing the independence of mothers in detecting and preventing postpartum complications. There needs to be consistency in assisting the postpartum period and outreach to cadres regarding these activities to support reducing morbidity and mortality during the postpartum period.

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