# The use of Maternal and Child Health (MCH) handbook improves healthy behavior of pregnant women

Nur Hidayatul Ainiyah<sup>1</sup>, M. Hakimi<sup>2</sup>, Anjarwati<sup>2</sup>

<sup>1</sup>Midwifery Master Program, <sup>2</sup>Faculty of Health Sciences, Aisyiyah University of Yogyakarta

## **ABSTRAK**

**Tujuan:** Mengetahui hubungan antara penggunaan Buku Kesehatan Ibu dan Anak (KIA) dan perilaku sehat ibu hamil trimester III. **Bahan dan Metode:** Penelitian ini menggunakan uji korelasi Spearman-Rho non-parametrik dengan kekuatan uji sebesar 95% **Hasil:** Hubungan antara pemanfaatan KIA dan perilaku sehat ibu hamil trimester III menunjukkan koefisien korelasi (r) sebesar 0,530 dan CI 95% 0,1663-0,638, menunjukkan korelasi tingkat menengah dengan nilai p 0,01 (p<0,05), berarti secara statistik signifikan.

Simpulan: Penggunaan buku pegangan KIA (ibu hamil dan anak) meningkatkan perilaku sehat ibu hamil trimester III. Semakin tinggi pemanfaatan KIA, semakin sehat perilaku ibu hamil trimester III. (MOG 2017;25:59-62)

Kata kunci: penggunaan KIA; perilaku sehat

## **ABSTRACT**

**Objectives:** To investigate correlation between maternal and child health (MCH) handbook utilization and healthy behavior of trimester III pregnant women.

**Materials and Methods:** This study used Spearman-Rho non-parametric correlation test with 95% of the Power of Test.

**Results:** The correlation between MCH utilization and the healthy behavior of trimester III pregnant women showed correlation coefficient (r) of 0.530 and CI 95% 0.163-0.638, indicating middle level of correlation with p-value of 0.01 (p<0.05), showing statistical significance.

Conclusion: MCH (maternal and child health) handbook utilization improves healthy behavior of trimester III pregnant women. The higher the utilization of MCH, the healthier the behavior of trimester III pregnant women. (MOG 2017;25:59-62)

Key words: MCH utilization; health behavior

**Correspondence:** Nur Hidayatul Ainiyah, Faculty of Health Sciences, Muhammadiyah University, Surabaya, Indonesia. Email: nurhidayatul.bdn@fik.um-surabaya.ac.id, nurhidayatul3@gmail.com

## INTRODUCTION

Maternal and Child Health (MCH) handbook is often considered only as a health record book for health workers. This becomes an obstacle in the formation of pregnant women's health behaviors about the importance of routinely checking pregnancy, understanding early pregnancy signs, the importance of taking regular Fe tablets, and daily health care. In the implementation, MCH book have not been utilized properly. There are still many pregnant women and families who do not understand and do not apply the health information contained in the MCH.<sup>1</sup>

Improving the implementation of MCH hanbook is supported by the central government as one of the programs to improve the health of mother and child. The use of MCH leads health workers to provide maternal and child health services in accordance with standards, documenting properly and correctly, and is the only evidence held by the mother as a documentation of health status during pregnancy, childbirth, post partum, immunization and growth of infants. Thus, the use of MCH makes it easy for mothers and families and health workers to know the history of maternal and child health.<sup>2a</sup>

Health status is an indicator of the welfare of a nation. The still high maternal mortality rate in Indonesia indicates low maternal health status. The results of RISKESDAS 2013 show that those who had MCH handbook were as much as 31.7%, pregnant women who get their pregnancy examined 3-5 times during pregnancy were 82%, pregnant women who took Fe tablets during pregnancy 58%, pregnant women who had TT immunization 58%, pregnant women who did a haemoglobin laboratory test 60%, and pregnant women who did urine laboratory examination 63%. Those are important maternal health behavior manifestations performed for early detection of risk and preventing pregnancy complications.<sup>3</sup> Kusindijah's research indicates that the knowledge of pregnant women holding MCH handbook in Public Health Center Rangkah Surabaya who included in good category were only 26.3% and 73.2% in the less category. Mothers who hold MCH handbooks, mostly (84.2%) had attitudes toward pregnancy care in the moderate category. Only 15.8% had a good attitude.4

The Ministry of Health and the Japan International Cooperation Agency (JICA) created the MCH handbook since 1993. Until now it has been regularly evaluated and revised to meet the needs of mothers and children, as the times progress. The book contains information on the health of pregnant women, childbirth, post-partum,

immunization, infant growth, first handling of ill babies, child with disability care and protection of children from sexual violence.<sup>2a</sup>

Maternal and Child Health (MCH) handbook also contains important information needed by mothers and families to be communicated by health workers through information and education to improve knowledge and health behaviors of pregnant women and families so that mothers and families are able to maintain, monitor and improve the health of pregnant women and fetuses and recognize early signs of danger in pregnant women so that the treatment can be provided quickly. This can reduce the incidence of high risk pregnant women and reduce maternal mortality. <sup>2a</sup>

Based on the Decree of the Minister of Health of the Republic of Indonesia No. 284/MENKES/SKIII/2004 on Maternal and Child Health handbook, MCH handbook is an instrument for early detection of disturbances or problems of mother and child. The implementation of MCH handbook correctly can improve the role of health workers in improving the knowledge of pregnant women, empower families and communities to monitor the health of pregnant women, carry out early detection of pregnancy with risk and obtain treatment according to standard.<sup>2a</sup>

The use of MCH handbook can be optimal if health workers and cadres ensure that the mother and the family understand the contents of the handbook. Increased knowledge of MCH handbook can be achie-ved in various ways. One way is to provide counseling appropriate to the needs of pregnant women and indepth counseling during pregnancy visits, both in health services and in the community, as well as evaluation and monitoring when during the subsequent visits of the pregnant women. Aiga's study results (2016) suggest that MCH handbook contributes to improving the knowledge and behavior of pregnant women with more than 3 times of pregnancy visits and increasing exclu-sive breastfeeding.

The purpose of this study was to investigate correlation between utilization of MCH handbook with health behavior of pregnant women. The benefits of this study can be used as a reference for future research and improve the health behavior of pregnant women to reduce risks in pregnancy.

## **MATERIALS AND METHODS**

The utilization of MCH handbooks shows the percentage of pregnant women's health information read by pregnant women. Maternal care information includes

balanced nutrition diet, how to maintain daily hygiene, physical activity, resting patterns, pregnancy hazard signs, other problems in pregnant women, things to avoid by pregnant women, signs of childbirth, and labor preparation.

The behavioral theory in this study was about the health behavior of pregnant women contained in MCH handbook, which includes visit for pregnancy examination, TT immunization, resting pattern, nutrition pattern, iron tablet consumption, laboratory blood examination (Hb, HbsAg, blood type) and urine (protein, albumin), pregnancy class activities and pregnancy exercise. The study was conducted at Public Health Center Jagir Surabaya in November-December 2016.

The instruments used for data collection in this study were questionnaire on the use of MCH handbook by Nakamura (2007) and questionnaires based on MCH handbook contents covering, first, questionnaires on the use of MCH books by respondents that contain questions about the use of KIA books by pregnant women. These questions include whether the pregnant woman reads the contents of the MCH handbook about pregnancy care information in terms of balanced nutrition diet, maintaining daily hygiene, physical activity, resting patterns, hazard in pregnancy, other problems in pregnant women, things that should be avoided by pregnant women, signs of labor, and labor preparation. Second, questionnaire on pregnant women's health behaviors contained in the MCH handbook, ie pregnancy examination, TT immunization, resting pat-terns, iron tablet consumption, blood and urine labora-tory examination, pregnancy class activities and pregnancy exercise.

The population was all third trimester pregnant women in Public Health Center Jagir Surabaya. The samples in this study were pregnant women who fulfilled the inclusion criteria of pregnant women of trimester III, pregnant women who had MCH handbook, and those who made pregnancy examination visit for more than 2 times. This study was a quantitative cross-sectional analytic study using Spearman Rho non-parametric test. This study used total sampling technique, ie all population was sampled so that the number of population and sample were the same, 87 respondents. With a sample size of 87 respondents, we obtained a correlation coefficient of 0.5.4

In this study data were collected in one time by approaching the third trimester pregnant women and explaining the purpose of the data taking. After the respondents expressed their willingness, informed consent was given and the author gave the questionnaire by explaining the contents of the questionnaire and how

to answer the questionnaire to those pregnant women. In addition, the author also observed the contents of the respondents' MCH handbooks. Questionnaires filling was guided by the author to anticipate questionnaires that were poorly understood by the respondents.

## **RESULTS AND DISCUSSION**

Table 1. Frequency distribution of research variables

| Variables   | Mean  | SD    | Median | Minimum<br>Maximum |
|-------------|-------|-------|--------|--------------------|
| Utilization | 7.83  | 1.693 | 9.00   | 1                  |
| Behavior    | 15.38 | 1.984 | 16.00  | 9<br>8             |
|             |       |       |        | 19                 |

Table 1 shows that most of the utilization of MCH handbook by respondents was 7.83 with a median of 9 and standard deviation of 1.693. Health behavior of the pregnant women had an average of 15.38 with a median of 16 and a standard deviation of 1.984.

Table 2. Bivariate analysis of the variables utilization and behavior

| Variables       | Behavior | N  |
|-----------------|----------|----|
| Utilization     |          |    |
| r               | 0.530    | 87 |
| <i>p</i> -value | 0.00     | 87 |

The correlation between utilization of MCH handbook and health behavior of pregnant women of trimester III has correlation coefficient (r) 0.530, showing moderate correlation with p<0.01 reflecting that the correlation between MCH utilization and health behavior of trimester III pregnant women was statistically significant.

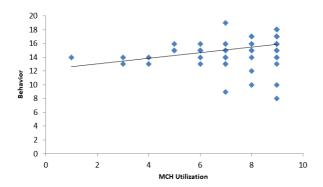


Figure 1. Bivariate analysis of MCH handbook utilization with health behavior of trimester III pregnant women at Public Health Center Jagir Surabaya

Figure 1 shows that correlation between MCH handbook and health behavior of trimester III pregnant women at Public Health Center Jagir Surabaya showed positive (+) correlation coefficient. The higher the utilization of MCH handbook by pregnant mothers, the better their health behavior. Spearman-Rho non-parametric statistical test results showed that the use of MCH handbook has a moderate correlation with health behavior of pregnant women with a value of correlation coefficient (r) 0.530, with significant correlation with p value 0.00 or <0.05, and positive correlation, where the higher the utilization of MCH hanbook, the better the health behavior of the pregnant women.

Nakmura's study (2012) showed that the use of MCH handbook by reading the information in it makes pregnant women understand the health behaviors to do and undergo intervention and examinations as suggested in the handbook. The handbook can be carried out when conducting checks at various health facilities, anytime and anywhere so that maternal and fetal health monitoring can be performed periodically as the beginning of the Continuity of Care. One of the levels of the behavioral domain is the application that is the ability to use the material that has been learned in actual situation or condition. The application here means the health behaviors contained in the MCH handbook have been read by pregnant women, understood and performed in the form of behavior.

The utilization can also be supported by a driving factor embodied in the attitude and behavior of the health workers who provide interventions that shape community behavior. The use of MCH handbook is a community empowerment strategy, especially for families, to maintain health and to obtain quality services according to standards. In addition, the hand-book contains important notes or messages needed by pregnant women, the intervention should be done based on the condition of pregnant women so it makes it easier to remember the interventions that must be done by pregnant women.

With the MCH handbook as a tool in providing health information, pregnant women will more easily understand and willing to carry out information in the book which includes the pattern of nutrition that must be consumed daily to meet the needs during pregnancy until the lactation period, taking Fe tablets according to the rules to prevent anemia, exercising regular resting patterns, avoiding strenuous activity, carrying out daily hygiene patterns, going to the dentist at least once to prevent infection, checking pregnancies regularly to monitor the condition of the pregnancy, avoiding things that endanger pregnancy, and following health workers' suggestions for laboratory examinations for early detection of risks. The more active health workers in provid-

ing information to pregnant women about health information and the appropriate application of care policies standard, the better the health behavior of the pregnant women because they will carry out what the health workers recommend.

## CONCLUSION

Utilization of MCH handbooks improves health behavior of trimester III pregnant women. The higher the utilization of MCH handbooks, the better the health behavior of trimester III pregnant women at Public Health Center Jagir Surabaya.

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