

DOI: 10.30644/rik.v11i2.717

Analysis of the use of mother and child health (mch) books by pregnant women in controlling stunting in the working area of Koto Baru community health center, Kuantan Singingi District

Riski Novela Yenita¹, Rifa Yanti², Sandra Febriani³, Romi Mulyadi⁴

¹Public Health, Al Insyirah High School Of Health Sciences, Pekanbaru, Riau, Indonesia

²Nursing, Al Insyirah High School Of Health Sciences, Pekanbaru, Riau, Indonesia

³Community Health Al Insyirah High School Of Health Sciences, Pekanbaru, Riau, Indonesia

⁴Electromedical, Al Insyirah High School Of Health Sciences, Pekanbaru, Riau, Indonesia

*Email correspondence : qynas85@gmail.com

Accepted: 01 December 2022 ; revision: December 14, 2022; published: 31 December 2022

Abstract

background: The maternal and child health book contains important information needed by mothers and children. The low utilization of the maternal and child health book is still constrained by the lack of knowledge about the benefits of the maternal and child health book and some mothers with stunting also consider the book as merely a checkbook. Puskesmas is one of the puskesmas in Kuantan Regency that has 100% coverage of KI. The high coverage of K1 is not in line with the use of the maternal and child health book by pregnant women. This study aims to determine the determinants associated with the use of the Maternal and Child Health book by pregnant women in the Work Area of the Koto Baru Health Center, Kuantan Singingi Regency.

method: This type of quantitative research is analytic research design and uses a cross-sectional approach. Samples were taken with a total sampling technique with a sample of 36 respondents. The data were analyzed univariate and bivariate.

RESULTS: The results obtained by respondents using the MCH handbook were well (61.1%), highly knowledgeable (63.9%), positive perception (52.8%), get family support (55.6%) and get the role of health workers (72.2%).

CONCLUSION: Chi square test results obtained there is a relationship between knowledge ($p = 0.002$), perception ($p = 0.001$), family support ($p = 0.003$) and the role of health workers ($p = 0.001$) with the use of the Mother and Child Healthbooks. It was concluded that knowledge, perception, family support and health workers were related to the utilization of the Maternal and Child Health book. It is recommended for health workers to improve services such as providing counseling.

Key words: Mch, Regency, kuantan singingi, pregnant mother

PRELIMINARY

Maternal mortality is a major problem, especially in developing countries(1). The cause of high cases of maternal morbidity and mortality in many developing countries is due to the process of pregnancy, childbirth and postpartum which can actually be prevented. Around 830 women die from complications of pregnancy or childbirth worldwide every day and 303,000 women die

during pregnancy and childbirth each year(2). The maternal mortality ratio in developing countries is 239 per 100,000 live births, which is higher than in developed countries as much as 12 per 100,000 live births(3).

Maternal Mortality Rate (MMR) in Indonesia is still relatively high because it is still far from the achievement target of the Sustainable Development Goals (SDGs) set

by the government in the third goal, namely: reduce MMR to 70 per 100 thousand by 2030(4). The maternal mortality rate in 2018 in Indonesia related to pregnancy, childbirth, and postpartum was 305 per 100,000 live births. The maternal mortality rate in Riau Province is 145 per 100,000 live births(5). The maternal mortality rate in Kuantan Singingi Regency in 2017 was 12 people.(6)

The Indonesian government has formulated several policies to suppress MMR and support improving maternal health and survival and newborns by forming several policies regarding service implementation of maternal and child health, one of which is use the KIA book as a service record for mothers and children as well as health information materials for mother and family(7). The government through the Decree of the Minister of Health No. 284/Menkes/SK/II/2004 stipulates that the Maternal and Child Health (KIA) book is a tool for recording maternal and child health services since pregnant women, giving birth and during the puerperium to the baby who was born aged 5 years, including family planning services, immunization, nutrition and child development(8)

The Maternal and Child Health Book (KIA) is a communication tool and important information media for health workers, pregnant women, families and communities(9), which serves as a tool to determine the health status of mothers during pregnancy, documentation, early detection of risks, counseling, and to monitor toddler growth. Every pregnant woman gets one KIA book(10). If the mother gives birth to twins, the mother gets two MCH books. MCH books can be obtained for free at health centers, posyandu, midwives, home maternity and doctors. MCH books kept at home and brought during the examination of antenatal and postnatal care in health services. The health worker records the results of the mother's examination completely in the KIA book, so that mothers and families know to ensure the health of the mother and baby(11).

Some mothers think that the MCH handbook is just a pregnancy check-up,

so they only use MCH services. The low utilization of the MCH handbook is still constrained by the lack of knowledge about the benefits of the MCH handbook and some mothers also consider things related to the MCH book to be just an examination notebook(12).

The correct application of the Maternal and Child Health (KIA) book will have an impact on increasing mother's knowledge of maternal and child health. If the mother has less knowledge, she does not know that the MCH handbook can detect problems in the health of the mother and child early and considers the MCH handbook to be not very important, because if it is not brought to every pregnancy check-up, the mother can still carry out the examination without feeling at all loss(13).

Based on Riskesdas data in 2018 Nationally, 86% of pregnant mothers check her pregnancy and who can show only 60% MCH book, cannot show 10% MCH book and don't have 30% MCH book. This means that not all pregnant women get and use the MCH book according to SK Menkes No. 284/Menkes/SK/II/2004 which states that every mother and child must have a complete record (KIA book) from the time the mother is pregnant until the postpartum period and her child is born until the age of 5 (five) years(14).

Data from Kuantan Singingi Regency in 2017 there were 6,963 pregnant women. Koto Baru Health Center is one of the health centers in Kuantan Singingi Regency whose KI coverage reaches 100%(15), namely 245 pregnant women from the target of 245 pregnant women with the number of pregnant women who made K1 visits in each village, namely Petai Village 60 people, Koto Baru Village 63 people, Sungai Village Paku 47 people, Tanjung Pauh Village 75 people. The high coverage of K1 is not in line with the use of MCH books by pregnant women(16).

METHODS

The research design used by the researcher is quantitative with analytic type. The place in this research will be carried out

in Tanjung Pauh Village, Koto Baru Health Center Work Area, Kuantan Singingi Regency. The sample in this study amounted to 36 pregnant women. The types of data analysis in this study are Univariate Analysis and Bivariate Analysis.

RESULTS AND DISCUSSION

Univariate Analysis

1. Utilization of MCH Handbook

Table 1 Distribution of the frequency of use of Maternal and Child Health books by pregnant women in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Utilization of MCH Handbook	frequency	Percentage (%)
Not making good use of it	14	38.9
Make good use of it	22	61.1
Total	36	100

Based on table 1, it can be seen that more respondents used the MCH book well, namely 61.1% compared to 38.9% did not use it well.

2. Knowledge

Table 2 Distribution of the frequency of knowledge of pregnant women in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Knowledge	frequency	Percentage (%)
Low	13	36.1
tall	23	63.9
Total	36	100

Based on table 2, it can be seen that there are more respondents with high knowledge, namely 63.9% compared to 36.1% with low knowledge.

3. Perception

Table 3 Distribution of the frequency of perceptions of pregnant women in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Perception	frequency	Percentage (%)
Negative	17	47.2
Positive	19	52.8
Total	36	100

Based on table 3, it can be seen that there are more respondents with positive perceptions, namely 52.8% compared to 47.2% negative perceptions.

4. Family support

Table 4 Distribution of the frequency of family support for pregnant women in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Family support	frequency	Percentage (%)
Does not support	16	44.4
support	20	55.6
Total	36	100

Based on table 4, it can be seen that there are more respondents who received family support, namely 55.6% than those who did not get family support, 44.4%.

5. Role of Health Workers

Table 5 Distribution of the frequency of the role of health workers on the use of Maternal and Child Health books by pregnant women in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Role of Health Workers	frequency	Percentage (%)
No roles	10	27.8
play a role	26	72.2
Total	36	100

Based on table 5, it can be seen that more respondents who got the role of health workers were 72.2% compared to those who did not get the role of health workers 27.8%.

1. Relationship between Knowledge of Pregnant Women and Utilization of Maternal and Child Health Books (KIA)

Bivariate Analysis

Table 6 The relationship between knowledge of pregnant women and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Knowledge	Utilization of MCH Handbook				Total	Pvalue	OR (95% CI)
	Not making good use of it		Make good use of it				
	n	%	n	%			
Low	10	76.9	3	23.1	13	0.002	15,833 (2,947-85,076)
tall	4	17.4	19	82.6	23		
Total	14	38.9	22	61.1	36		

Based on table 6 shows that respondents who have low knowledge and do not use MCH books are well (76.9%) while respondents who have high knowledge and use MCH books are 82.6%. Calculation of chi square with the result value value $0.002 < (0.05)$ which means that there is a relationship between knowledge of pregnant women and the use of Maternal and Child Health (KIA) books in Tanjung Pauh Village, Koto Baru Health Center Work Area, Kuantan Singingi Regency with a value of OR =

15,833 (CI: 1, 2,947-85,076) this shows that highly knowledgeable mothers have a chance 15,833 times when using MCH books well compared to mothers with low knowledge.

2. Relationship between Perception of Pregnant Women and Utilization of Maternal and Child Health Books (KIA)

Table 7 The relationship between perceptions of pregnant women and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Perception	Utilization of MCH Handbook				Total	Pvalue	OR (95% CI)
	Not making good use of it		Make good use of it				
	n	%	n	%	n	%	
Negative	12	70.6	5	29.4	17	100	0.001 20,400 (3,377-123, 245)
Positive	2	10.5	17	89.5	19	100	
Total	14	38.9	22	61.1	36	100	

Based on table 7 shows that respondents with negative perceptions do not use MCH books well (70.6%) while respondents with positive perceptions use MCH books (89.5%). Calculation of chi square with the result value value $0.001 < (0.05)$ which means that there is a relationship between perceptions of pregnant women and the use of Maternal and Child Health (KIA) books in Tanjung Pauh Village, Koto Baru Health

Center Work Area, Kuantan Singingi Regency with a value of OR = 20,400 (CI : 13,377-123, 245) this shows that mothers with positive perceptions have a chance of 20,400 times using the MCH book compared to mothers with negative perceptions.

3. Relationship between Family Support for Pregnant Women and Utilization of Maternal and Child Health Books (KIA)

Table 8 The relationship between family support for pregnant women and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Family support	Utilization of MCH Handbook				Total	Pvalue	OR (95% CI)
	Not making good use of it		Make good use of it				
	n	%	n	%	n	%	
Does not support	11	68.8	5	31.3	16	100	0.003 12,467 (2,467-62,987)
support	3	15	17	85	20	100	
Total	14	38.9	22	61.1	36	100	

Based on table 8, it shows that respondents who do not receive family support and do not use MCH books are well (68.8%) while respondents who have family support and use MCH books are (85%). Calculation of chi square with the results of value $0.003 < (0.05)$ which means that there is a relationship between family support and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work

Area, Kuantan Singingi Regency with a value of OR = 12,467 (CI :2,467-62,987) this shows that mothers who have family support have the opportunity 12,467 times using the MCH handbook compared to mothers who did not receive family support.

4. The Relationship between the Role of Health Workers and the Utilization of Maternal and Child Health Books (KIA)

Table 9 The relationship between the role of health workers and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work Area, Kuantan Singingi Regency.

Role of Health Workers	Utilization of MCH Handbook				Total	Pvalue	OR (95% CI)
	Not making good use of it		Make good use of it				
	n	%	n	%			
No roles	9	90	1	10	10	100	0.001 37,800(3,849-371,271)
play a role	5	19.2	21	80.8	26	100	
Total	14	38.9	22	61.1	36	100	

On table 9 shows that respondent who do not get the role of health workers and do not use the MCH book properly (90%) while the respondents who get the role of health worker and use MCH books (80.8%). Calculation of chi square with a value of value $0.001 < (0.05)$ which means that there is a relationship between the role of health workers and the use of Maternal and Child Health (KIA) books in the Koto Baru Health Center Work Area, Kuantan Singingi Regency with a value of OR = 37,800 (CI: 3.849-371,271) this shows that mothers who take on the role of health workers have the opportunity a37,800 times using the MCH handbook compared to mothers who did not accept the role of a health worker.

Discussion

The high knowledge of respondents can be seen in the questionnaire, the majority of respondents answered correctly on the question The MCH handbook contains health information for mothers and children of 97.2%, the majority of respondents answered correctly on the question The purpose of the MCH book is for mothers to understand about maternal and child health by 94.4%, respondents also answered correctly to the questions The MCH handbook is one of the efforts to prevent complications in pregnancy and childbirth by 88.9%.

Knowledge is very influential on a person's behavior, in the sense that the better the mother's knowledge about the use of MCH books, the better the mother's actions in the use of MCH books. Oktarina, (2013). This is in accordance with the theory which states that to form and behave as a whole, knowledge plays an important role. That is, the better a person's knowledge, the attitude that will be generated will also be positive and the formation of an attitude and behavior that is influenced by the cognitive component or knowledge that contains a person's beliefs about what applies or what is true for the attitude object. (Notoatmodjo, 2012).

A mother must have sufficient knowledge to understand the contents of the MCH handbook. As a support, a mother must also have general knowledge about the health and development of her child. This is because in the MCH book there are several terms that are not understood by lay people, so with sufficient knowledge later on, mothers can understand the contents of the MCH book (Pandori, 2018).

The results of this study are in line with research by Hanum 2018 with the title of the relationship between knowledge and attitudes of pregnant women about the use of MCH books at the Namu Ukur Health Center, where it was found that there was a relationship between knowledge and the use

of MCH books at the Namu Ukur Health Center. with value = 0.017 ($p < 0.05$).

The researcher assumes that high maternal knowledge is related to the use of MCH books, because knowledge is the basis for someone to act. High knowledge causes mothers to understand the contents of the MCH handbook, so when visiting ANC mothers always carry MCH books and use them or read them if there is anything they want to know about pregnancy and maternal health.

Positive respondents' perceptions can be seen in the questionnaire, the majority of respondents answered strongly agree with the statement The notes in the MCH handbook will be very useful for mothers, children and health workers amounted to 63.9%, the majority of respondents answered agree on the statementP The messages conveyed in the MCH handbook regarding care for pregnancy, childbirth, postpartum, infants and toddlers are very complete of 57.8%, respondents also answered agree with the statementBThe MCH index used from pregnant women to children aged 5 years was 88.9%.

Mother's perception of the Maternal and Child Health (KIA) book is wrong, a predisposition for good parenting in accordance with the information he obtained from the Maternal and Child Health (KIA) book. Mother's perception of Maternal and Child Health (KIA) books will be directly influenced by knowledge about the importance of using Maternal and Child Health (KIA) books (Hanum, 201 The results of this study are in line with Sulistyaningsih's 2019 research with the title the relationship between knowledge and perceptions of pregnant women with the use of MCH books, where it is obtained the relationship that significant relationship between and perceptions of pregnant women with the use of MCH books in the Tanjungrejo Health Center area with value = 0.011 ($p < 0.05$).

Researchers assume that mothers' perceptions of the use of MCH books can be formed from various factors, positive perceptions will cause mothers to be

interested in using the KIA book because they consider the information from the MCH book to be very useful for mothers during pregnancy until they have children later.

Supportive families can be seen in the questionnaire, the majority of respondents answered yes to the statement of the family accompanies the mother in consultation with the health worker to obtain information about pregnancy and the MCH handbook of 94.4%, the majority of respondents answered yes to the statement The family helps the mother to study the contents of the KIA book of 88.9%, respondents also answered yes to the statement The family participates by accompanying the mother to carry out pregnancy checks by 97.2%.

Family encouragement and support for pregnant women to use the MCH handbook is very much needed. Family or husband support can be measured by seeing, supporting or not when the mother performs a pregnancy check-up. Family support is the attitude, action and acceptance of the family towards things that exist and occur in the family. Family members view that people who are supportive are always ready to provide help and assistance if needed. Real family support to mothers in the form of providing material and moral support, providing facilities and transportation to health facilities and providing information to mothers about health as well as family support (Ministry of Health, 2012).

The better the family support, the better the behavior of pregnant women in using MCH books and vice versa, the less family support, the less the behavior of mothers in using MCH books. When pregnant is a very sensitive time for a woman, husband and family support is very important and cannot be underestimated and no less important is to build a positive atmosphere, where the wife feels herself and her pregnancy being cared for by the family (Rahmi, 2018).

The researcher's assumption is that the use of MCH books by pregnant women is influenced by family support because they

support the family, especially moral and material support is needed to increase the mother's motivation to use the MCH book,

The role of health workers can be seen in the questionnaire, the majority of respondents answered no to the statement Health workers explain each picture in the MCH book of 94.2%, the majority of respondents answered yes to the statement Health workers recommend reading the MCH handbook as a daily health care guide of 88.5%, the respondents also answered yes to the health statement of the workers explained well all the contents of the KIA book when the mother asked by 92.6%.

The role of health workers in the use of MCH books is to encourage pregnant women to read MUCH books regularly so that pregnant women understand and understand what to do to maintain their health and also recommend asking health workers about things they do not understand. Health workers as the person in charge of the area and providers of MCH services must facilitate the understanding and application of the MCH Handbook by mothers, husbands, families and child caretakers in children's social welfare institutions/institutions and cadres. Health workers play an important role in the utilization of the MCH handbook because it is the health worker who gives the book to the mother (Kusindijah, 2012).

The effectiveness of the role of health workers in the use of the MCH handbook can be seen through the fulfillment of their obligations, including recording the health services that have been provided to mothers and children in the MCH book by marking (v) on the message or information that has been explained to the mother, being able to answer and provide explanations. every time the mother asks for an explanation, provides health services, counseling, and counseling to the mother regarding the contents of the MCH book, and retests the mother's understanding after each explanation and demonstration (Ministry of Health, 2016).

The researcher's assumption is that there is a relationship between the role of health workers and the use of MCH books

because health workers are the spearhead of health services in the community, so that the support of health workers is absolutely necessary such as moral support, motivating and providing information to mothers to use MCH books. to avoid pregnancy and labor complications.

CONCLUSION

1. The majority of respondents used the MCH handbook well, namely (61.1%), highly knowledgeable (63.9%), positive perception (52.8%), received family support (55.6%) and received the role of health workers (72.2%).
2. There is a relationship between knowledge of pregnant women and the use of Maternal and Child Health (KIA) books in the KotoNew Health Center Work Area, Kuantan Singingi Regency. with a value of = 0.002.
3. There is a relationship between the perception of pregnant women and the use of Maternal and Child Health (KIA) books in the KotoNew Health Center Work Area, Kuantan Singingi Regency. with a value of = 0.001.
4. There is a relationship between family support and the use of Maternal and Child Health (KIA) books in the KotoNew Health Center Work Area, Kuantan Singingi Regency. with a value of = 0.003.
5. There is a relationship between the role of health workers and the use of Maternal and Child Health (KIA) books in the KotoNew Health Center Work Area, Kuantan Singingi Regency. with a value of = 0.001.

References

1. Ragil DW, Dyah YP. Relationship Between Knowledge and Handwashing Habits of Caregivers With Diarrhea in ToddlersArticle Info. Jhe [Internet]. 2017;2(1):39–46. Available from: <http://journal.unnes.ac.id/sju/index.php/jhealthedu/>
2. Rahayu YP, Panjaitan FM, Sari S,

- Banjarmasin M, Banjarbaru PK. The Relationship between Knowledge and Attitudes of Pregnant Women About the Danger Signs of Pregnancy Against Utilization of the Kia Book in Upt. Marthapura Health Center. *Din Health* [Internet]. 2018;6(1):146–52. Available from: <https://ojs.dinakesehatan.unism.ac.id/index.php/dksm/article/view/94>
3. Veronika E, Pangesti J, Pangestu N, Mahira SF, Khaerani T, Nurmiladiah W, et al. Mother's Knowledge, Attitudes, and Behavior in Utilizing the MCH Handbook. 2022;2(1):1–9.
 4. Aswir, Misbah H. RELATIONSHIP BETWEEN KNOWLEDGE AND ATTITUDES OF PREGNANT WOMEN REGARDING THE USE OF THE MCH BOOK AT THE NAMU UKUR COMMUNITY HEALTH CENTER. *Photosynthetica* [Internet]. 2018;2(1):1–13. Available from:
 5. Sulistyaningsih SH. The Relationship between Knowledge and Perceptions of Pregnant Women and Utilization of the Kia Book. *Nursing and Midwifery* [Internet]. 2019;11(2):108–14. Available from: <https://ejr.stikesmuhkudus.ac.id/index.php/jikk/article/view/844>
 6. Sistiarani C. Analysis of the Quality of Using Maternal and Child Health Books. *J Health Community* [Internet]. 2014;10(1):14–20. Available from: <http://journal.unnes.ac.id/nju/index.php/kesmas/article/view/3065>
 7. Decree of the Director General of Strengthening Research and Development of Research and Technology Dikti S, Panna SS. Accredited SINTA Rank 2 Age Group Classification Through Image Texture Based Image Texture Analysis on the Automatic Video Filtering System. *Validity Period Start*. 2017;1(3):429–34.
 8. Sofwan I. *Journal of Public Health Andalas*. Sent Obesity And Total Blood Cholesterol Levels. 2009;11(1):87–95.
 9. Susanti AI, Astuti S, Rahmiati L, Elba F, Ratminah M. Refreshing the Use of the MCH Handbook as a Promotional Effort for Maternal and Child Health in Sayang Village and Cisempur. *J Servants of the Community* [Internet]. 2018;2(1):1–3. Available from: <http://jurnal.unpad.ac.id/pkm/article/view/20069/9500>
 10. Kim DK, Wang YF. Smoke detection in video. 2009 WRI World Congr Comput Sci Inf Eng CSIE 2009. 2009;5:759–63.
 11. Sugiharti S, Masitoh S, Suparmi S, Lestary H. Determinants of Interest in Reading Maternal and Child Health (Kia) Books in Pregnant Women in 7 Districts/Cities in Indonesia. *J Reproductive Health*. 2021;12(1):77–87.
 12. Herfanda E, Subiyatun S. Description of the utilization of maternal and child health (MCH) books by third trimester pregnant women on preparation for delivery at the Tempel 1 Health Center. *J Midwifery*. 2021;10(2):129.
 13. Perdana F, Herawati H. Efforts to Improve Mother and Child Health Through the Health Literacy Program and Book Grants in Cintamulya Village Rw 05 Jatinangor. *Dharmakarya*. 2018;7(1):6–10.
 14. Received R, Revision F, Online A, Ayu P, Experimental Q, With PT, et al. The Effectiveness of Using the MCH Handbook with E-BOOK About Nutrition Knowledge of Pregnant Women at the Putri Ayu Health Center. 2022;
 15. Dewi KAP, Nurtini NM. Analysis of the Use of Maternal and Child Health Books (Kia) During the Covid 19 Pandemic for Pregnant Women in Kesiman Petilan Village. *Med Tower*. 2022;4(2):227–36.
 16. Maharani K, Qomariyah, Rahimah N. Determinants of Utilization of Maternal and Child Health (Kia) Books for Pregnant Women at the Karangayu Health Center, Semarang City. *J Health STIKES Telogorejo*[Internet]. 2019;9(2):69–75. Available from: <http://182.253.197.100/e-journal/index.php/jikk/article/view/799>