

Original Research

The Factors That Influence The Use Of Maternal And Child Health Books In Mothers

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ABSTRACT

Background: *The MCH Book is a tool for the early detection of any disturbances or health problems for mothers and children. This book is important, but its use is not optimal. The purpose of this study was to determine and analyze the factors that influence the use of maternal and child health books by mothers.*

Methods: *This study uses an analytic observational design with a cross-sectional approach with a sampling technique using an accidental sampling technique with a sample of 78 people. Respondents were selected who met the age of 22–40 years, could read and write, and were willing to be respondents. This study used a research instrument in the form of a questionnaire and was measured using a scale. The data was analyzed by multiple linear regression tests using SPSS for Windows version 22.*

Results: *Variable knowledge and attitudes together (simultaneously) have a significant effect on the utilization of MCH books. The results of the statistical test obtained p value = 0.021 on the knowledge variable, p = 0.000 on the attitude variable, where p < (0.05).*

Conclusion: *There is a relationship between knowledge and attitudes of the millennial generation of pregnant women towards the use of MCH books at the Pacar Keling Health Center. It is hoped that millennial-generation pregnant women will not only seek information about health through social media/the internet but also by reading and understanding the contents of the MCH book.*

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INTRODUCTION

Child bearing is one of the hazardous experiences that women engage in while bringing new life to this world. It is often associated with complications that may cause morbidity- ties, disabilities, and mortalities (Zelalem Ayele et al., 2014). Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) are still major problems in the world because they are still relatively high. Data from the World Health Organization (WHO)

in 2015 states that in the world, around 800 mothers die every day due to complications of pregnancy and childbirth (Van Den Broek, 2019) (Dangura, 2020). The main causes of maternal death include bleeding, hypertension, infection, and other comorbidities suffered by the mother before pregnancy (Saintrain et al., 2016) (Mocumbi, Sliwa, & Soma-Pillay, 2016). The risk of maternal death in developing countries is 23 times greater than that of developed countries in relation to pregnancy and childbirth (Girum & Wasie, 2017). Several government programs and efforts to overcome these problems include the Maternal and Child Health Book (KIA) program, which has been piloted since 1994 (Noviyanti, 2021).

The MCH BOOK, as stated in the Decree of the Minister of Health of the Republic of Indonesia No. 284/MENKES/SK/III/2004, is a tool for early detection of disorders or problems with maternal and child health, communication tools, and also a media for counseling with important information for mothers and families and the community, namely regarding maternal and child health services including referrals and packages (standards) for Maternal and Child Health (KIA), nutrition, immunization, and growth and development of toddlers (Kurnain, 2022). So, when the MCH Book is not used properly, it will be difficult to detect early on the mother and child (Carandang et al., 2022) (Setiani, Fatmasari, & Suwondo, 2022). The MCH book program has actually been tested since 1994. Unfortunately, the results of the Basic Health Research showed that only 60% of pregnant women had an MCH Book and could show it, 10% could not show it, and 30% of the pregnant women did not have an MCH Book (Risikesdas, 2018).

The MCHHB includes a home-based record, educational information, and communication material to increase awareness of the necessity of MNCH service utilization by all women and children nationally (Osaki et al., 2015). Recording of pregnant women that precise and accurate, accompanied by monitoring intensively by families and health workers can early detect pregnancy complications, therefore, the process of giving birth and postpartum periods also proceed safely (Mawarni et al., 2022).

The results of a preliminary survey at the Paddy Keling Health Center on February 16, 2022, showed that pregnant women did not know about the benefits of the MCH book. This was obtained from the results of interviews with 10 respondents. 4 out of 10 pregnant women do not know about the contents of the MCH book. 6 out of 10 pregnant women have never read MCH books and obtain health information from online media. And all 10 pregnant women always carry a KIA book at the time of their pregnancy check-up.

MATERIALS AND METHOD

This study used a cross-sectional design with sampling using an accidental sampling technique. In this study, the knowledge and attitudes of millennial pregnant women became the independent variable (the dependent variable) and the use of the MCH book became the dependent variable (the dependent variable). This research was carried out at the Pacar Keling Health Center in Surabaya. The time of this research starts from the initial survey, which prepares the proposal, until the implementation of the research, which is from February to July 2022.

The population in this study was all pregnant women who made ANC visits at the Paddy Keling Health Center, as many as 365 pregnant women, and the sampling technique in this study used the solving formula, as many as 78 pregnant women. Data

collection in this study consisted of primary and secondary data. Researchers collected primary data by using a questionnaire.

The questionnaire used for data collection was tested for validity and reliability before being used for research. The validity test was carried out on 10 respondents who had characteristics that matched the researcher's criteria. It is said to be valid if r is calculated to be greater than the r table and reliable if the Cronbach value is greater than the constant (0.6). The results of the instrument validity test with Pearson's Correlation to the MCH Book Utilization questionnaire obtained a calculated r -value of each eligible item, which is > 0.576 , so that 12 items are valid and can be continued. The results of the instrument reliability test with Cronbach Alpha obtained a qualified Cronbach Alpha value of > 0.600 , indicating that the variables used were reliable.

The questionnaire given to the respondents contains data on the identity of the respondent and a list of questions about the independent variable and the dependent variable. Analysis of the data used in this study was performed using univariate analysis (frequency distribution), bivariate analysis (chi-square), and multivariate analysis (multiple linear regression test). The ethical feasibility for this study comes from the Health Research Ethics Commission of the Institut Ilmu Kesehatan Strada Indonesia with number 2804/KEPK/VI/2022.

RESULTS

Table 1. Frequency Distribution of Respondents' Characteristics at the Pacar Keling Health Center in Surabaya

Variable	N	Percentage (%)
Age		
22-30	46	59,0
31-40	32	41,0
Total	78	100
Education		
Elementary School	8	10,3
Junior High School	17	21,8
Senior High School	33	42,3
College	20	25,6
Total	78	100
Occupation		
Civil servant	6	7,7
Private	12	15,4
Self-employed	11	14,1
Housewife	49	62,8
Total	78	100
Gravida		
Primigravida	27	34,6
Multigravida	51	65,4
Total	78	100
Knowledge		
Good	58	74,4
Enough	20	25,6
Less	0	0
Total	78	100

Variable	N	Percentage (%)
Attitude		
Positive	72	92,3
Negative	6	7,7
Total	78	100
Use of MCH book		
Yes	64	82,1
No	14	17,9
Total	78	100

Based on Table 1, it can be seen that the characteristics of respondents based on age are 46 respondents (59%) and 32 respondents (41%). Based on education, it can be seen that respondents who have graduated from elementary school are 8 respondents (10.3%), those who have graduated from junior high school are 17 respondents (21.8%), those who have graduated from high school are as many as 33 respondents (42.3%), and those who have graduated from college are 20 respondents (25.6%). Based on the work, it can be seen that the respondents who have civil servant jobs are 6 respondents (7.7%), the private sector is 12 respondents (15.4%), the self-employed are 11 respondents (14.1%), and housewives are 49 respondents (62.8%).

Of the 78 respondents (100%) of pregnant women in the millennial generation who are knowledgeable, 58 respondents (74.4%) and 20 respondents (25.6%) have sufficient knowledge. Millennial generation pregnant women who have a positive attitude have as many as 72 respondents (92.3%) and those who have a negative attitude have as many as 6 respondents (7.7%). Meanwhile, there were 64 respondents (82.1%) of pregnant women who used the MCH Book (82.1%) and 14 respondents (17.9%).

Table 2. The Effect of Knowledge of Pregnant Mothers of Millennials Age 22-40 Years on the Utilization of MCH Books at the Pacar Keling Health Center, Surabaya City

Knowledge	Use of MCH Book				Total	P(value)
	Yes		No			
	F	%	F	%		
Good	51	87,9	7	12,1	58	100
Enough	13	65,0	7	35,0	20	100
Less	0	0	0	0	0	0
Total	64	82,1	14	17,9	78	100

Based on Table 2 of the 78 respondents who have good knowledge of the millennial generation of pregnant women who use the MCH book, as many as 51 respondents (87.9%) do not use the MCH book, and as many as 7 respondents (12.1%). While pregnant women of the millennial generation who have sufficient knowledge and use MCH books are 13 respondents (65%), those who do not use MCH books are only 7 respondents (35%).

Table 3. The Influence of Millennial Generation's Pregnant Mothers' Attitude on the Use of MCH Books at the Pacar Keling Health Center, Surabaya City

Attitude	Use of MCH Book				Total		P(value)
	Yes		No		F	%	
	F	%	F	%			
Positive	63	87,5	9	12,5	72	100	0,000
Negative	1	16,7	5	83,3	6	100	
Total	64	82,1	14	17,9	78	100	

Based on Table 3 above, it shows that of the 78 millennial generation pregnant women respondents who have a positive attitude towards the use of MCH books, as many as 63 respondents (87.5%) and 9 respondents (12.5%) do not use MCH books. While the millennial generation of pregnant women who have a negative attitude toward the use of MCH books includes 1 respondent (16.7%) and 5 respondents who do not use MCH books (83.3%). Simultaneous hypothesis testing aims to measure the effect of the independent variables together on the dependent variable. If the significance value is < 0.05 or $F_{count} > F_{table}$, then H_a is accepted. And vice versa, if the significance > 0.05 or $F_{count} < F_{table}$, then H_o is accepted.

Table 4. F Test Results the Effect of Knowledge and Attitudes of Millennial Generation of Pregnant Women on the Use of MCH Books

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.784	2	1.392	11.998	.000 ^b
Residual	8.703	75	.116		
Total	11.487	77			

Based on table 4 above, it shows that the significant level is $0.000 < 0.05$. So this regression model can be used for the variable utilization of the MCH book. Thus, it can be said that the knowledge and attitude variables simultaneously have a significant effect on the utilization of the MCH book.

Table 5. Multiple Linear Regression Analysis of the Relationship of Knowledge and Attitudes of Millennial Generation of Pregnant Mothers to the Use of MCH Books

Variable	B	Std. Error	Betta	t	Sig.
(Constant)	.211	.246		.858	.394
Knowledge	-.022	.101	-.025	-.219	.828
Attitude	.690	.166	.479	4.154	.000

Based on the results obtained from the regression coefficients above, the following regression equation can be made:

1. The constant value (α) is 0.211, which means that if the knowledge and attitude variables are assumed to have a value of 0, then the value of the MCH book utilization variable is 0.211.
2. The regression coefficient value of the knowledge variable in the table above shows a negative value (-) of 0.022, so it has the opposite relationship with the MCH book utilization variable, which means that if there is a 1% increase in the knowledge variable, it causes a decrease in the MCH book utilization.

3. The attitude regression coefficient value in the table above shows a positive value of 0.690, so it has a unidirectional relationship with the MCH book utilization variable, which means that if there is a 1% increase in the attitude variable, it causes an increase in the MCH book utilization.

DISCUSSION

Based on Table 2, it can be seen that of the 58 respondents (100%) who are well-informed, there are 51 respondents (87.9%) utilizing MCH books, while of the 20 respondents (100%) who are knowledgeable enough, there are 13 respondents (65.0%) utilizing MCH books. The results showed that there was a significant relationship between knowledge and the use of MCH books at the Pacar Keling Health Center with a P value of $0.021 < 0.05$. The results of this study are in line with the results of Osaki's research (2019) on the Maternal and Child Health Handbook use for maternal and child care: a cluster randomized controlled study in rural Java, Indonesia.

The results in the intervention areas of home care (continued breastfeeding; introducing complementary feeding; proper feeding order; varied food feeding; self-feeding training; and care for cough), perceived support by husbands, and lower underweight rates and stunting rates among children were observed (Osaki et al., 2019). The results of this study are also in line with Aiga (2016). Based on the results, the MCH Handbook is likely to have contributed to practicing ≥ 3 antenatal care visits by changing their attitude.

The proportion of mothers who know the need for exclusive breastfeeding during the initial six months significantly increased between pre-and post-interventions. The proportion of those practicing exclusive breastfeeding significantly increased between pre-and post-interventions, too. Thus, the MCH Handbook is likely to have contributed to the increase in both knowledge about and practices of exclusive breastfeeding (Aiga, 2016).

Based on the results of the study and the researcher's assumption that the knowledge of pregnant women in the good category was 58 respondents (100%), there were 7 respondents (12.1%) who did not use the MCH book, and sufficient category was 20 respondents (100%), there were 7 respondents who did not. Do not use the MCH Book. This is because respondents still think that the MCH Book is just a record for health workers.

Apart from that, from the education level of the respondents, some have basic education, which makes it difficult for respondents to receive information about the benefits of the MCH book that has been given by health workers, so that the MCH book that has been given is only taken home but not read. Respondents only get information from reading social media/internet sites, so respondents are less able to use MCH books. Based on table 3, it can be seen that of the 72 respondents (100%) who have a positive attitude, there are 63 respondents (87.5%) who use MCH books and 9 respondents (12.5%) who do not use MCH books.

Meanwhile, of the 6 respondents (100%) who have a negative attitude. There is 1 respondent (16.7%) who uses the MCH Book and 5 respondents (83.3%) who do not use the MCH Book. The results of the statistical analysis test of the relationship between attitudes and the use of MCH books based on the chi-square test with a significant value of p-value $0.000 < 0.05$ indicates that there is a significant relationship between attitudes and the use of MCH books.

The results of this study are in line with Tobe et al., (2022) with the title Maternal and child health handbook to improve the continuum of maternal and child care in rural Bangladesh. Findings of a cluster randomized controlled trial. Regarding the (potential) usefulness of MCH for knowledge dissemination for mothers and babies, 99.9% and 81.2% of participants in the intervention and the control group, respectively, had a positive attitude (Tobe et al., 2022).

According to the researcher's assumption, there is a relationship between the attitudes of pregnant women and the use of MCH books because a positive attitude encourages the readiness of pregnant women to use MCH books. With a positive attitude, pregnant women tend to always read and apply the things contained in MCH books because they think that MCH books are very important for knowing or detecting the condition of the fetus. MCH handbook utilization effected the attitude of pregnant women regarding the complication of pregnancy and childbirth. Pregnant women who read and utilize MCH handbook would be have better alertness about the risk of complication so they would make the right decision for their pregnancy (Irawati & Syalfina, 2019).

A recent study in the Palestinian Authority demonstrated that the MCH handbook improved maternal knowledge on exclusive breastfeeding and the risks associated with membrane rupture during pregnancy, especially among less-educated women (Yanagisawa et al., 2015). Through a good understanding of the MCH handbook, the use and utilization of the MCH book can be supported by her husband or family member. The support form that provided can be in the form of participating in following up and implementing messages conveyed in the MCH handbook along with pregnant women (Dharmawan et al., 2021).

However, there are also pregnant women who have a positive attitude. Knowing that MCH books are important but do not use MCH books properly because when mothers do not have time to read MCH books or even mothers who have never read MCH books. It is because mothers seek information through social media or the internet because it is more practical and time-saving without having to open the KIA book (Phommachanh, Essink, Wright, Broerse, & Mayxay, 2021). Less than optimal maternal behaviour in the utilisation of MCH Handbooks can be influenced by several factors including knowledge, attitude, and awareness of mothers about the importance of the MCH Handbook so that mothers are less committed to using the MCH Handbook properly (Susilaningrum et al., 2018).

The results of the multivariate analysis with the F test showed that the significant level was $0.000 < 0.05$. So, this regression model can be used for the variable utilization of the MCH book. Thus, it can be said that the knowledge and attitude variables simultaneously (simultaneously) have a significant effect on the utilization of the MCH Book.

The results of this study explain that the better the knowledge possessed by pregnant women who are supported by a good attitude in the use of MCH books, the better the utilization of MCH books. This is because better knowledge will indirectly affect the attitudes of pregnant women when using the MCH book.

CONCLUSION

Knowledge and attitudes of the millennial generation of pregnant women related to the use of MCH books at the Pacar Keling Health Center It is hoped that millennial-

generation pregnant women will not only seek information about health through social media/the internet but also by reading and understanding the contents of the MCH book.

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