



TYPE OF PREGNANCY COMPLICATIONS AND WHERE TO SEEK HELP: DO PREGNANT WOMEN CHOOSE PRECISELY?

JENIS GANGGUAN KEHAMILAN DAN KEMANA Mencari PERTOLONGAN: APAKAH IBU Hamil SUDAH MEMILIH DENGAN TEPAT?

Astridya Paramita^{1*}, Nailul Izza², Pramita Andarwati³, Zulfa Auliyati Agustina⁴

^{1,2} Research Center for Public Health and Nutrition, National Research and Innovation Agency, Bogor, Indonesia

³ Research Center for Pre-Clinical and Clinical Medicine, National Research and Innovation Agency, Bogor, Indonesia

⁴ Health Ministry of Republic of Indonesia, Jakarta, Indonesia

*E-mail: astridya.paramita@brin.go.id

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Abstract

Background: Untreated pregnancy complications can be at risk of maternal and fetal death.

Objective: This study analyzes the precision in choosing health facilities for treating pregnancy complications.

Method: Used cross-sectional design following the 2018 Basic Health Research (Riskesdas). The unit of analysis was female household members aged 10-54 years with married/divorced/widow status, had been pregnant, and had a pregnancy check-up, as many as 75,155 people. The data are analyzed descriptively to describe the percentage distribution of pregnancy complication type and the precision in choosing health facilities for treating pregnancy complications.

Result: Abnormal bleeding, preterm premature rupture of membranes, decreased fetal movement, and hypertension are the pregnant women determined to seek help from health workers. The private practice of health workers and Primary Health Care (PHC) are health facilities that are mostly used, even when pregnant women experience serious complications. Shows that there is a tendency for pregnant women to not be able to map the level of emergency pregnancy complications experienced, with the suitability of the capabilities of the health facilities that should be addressed.

Conclusion: Increased awareness and ability to understand the level of pregnancy issues experienced, as well as the types of health facilities that are suited for pregnant women on their own, are required.

Keywords: Health Seeking Behavior, Maternal, Pregnancy Complication, Maternal Mortality Rate

Abstrak

Latar belakang: Gangguan kehamilan yang tidak tertangani dengan tepat dapat mengakibatkan kematian ibu dan janin.

Tujuan: Penelitian ini bertujuan menganalisis ketepatan ibu hamil dalam memilih fasilitas kesehatan untuk menangani gangguan kehamilan yang dialami.

Metode: Studi ini menggunakan data Riset Kesehatan Dasar (Riskesdas) 2018 dengan desain potong lintang. Sampel sebanyak 75.155 orang anggota rumah tangga perempuan dianalisis dalam studi ini, dengan kriteria anggota rumah tangga perempuan berusia 10-54 tahun dengan status menikah/janda cerai/janda mati, pernah hamil, dan melakukan pemeriksaan kehamilan. Data dianalisis secara deskriptif untuk menggambarkan distribusi persentase jenis gangguan kehamilan dan ketepatan ibu hamil dalam memilih fasilitas kesehatan untuk menangani gangguan kehamilan yang dialami.

Hasil: Perdarahan banyak pada jalan lahir, ketuban pecah sebelum waktunya, janin kurang bergerak, dan hipertensi merupakan jenis gangguan kehamilan yang sering menyebabkan ibu hamil mencari pertolongan ke tenaga kesehatan. Praktik tenaga kesehatan, dan Pusat Kesehatan Masyarakat (Puskesmas) serta jaringannya, merupakan jenis fasilitas kesehatan yang banyak dimanfaatkan ibu hamil, apapun jenis komplikasi yang dihadapi. Hal ini menunjukkan adanya kecenderungan bahwa ibu hamil belum mampu memetakan tingkat kegawatdaruratan gangguan kehamilan yang dialami dengan kesesuaian kemampuan fasilitas kesehatan yang seharusnya dituju.

Kesimpulan: Diperlukan peningkatan kesadaran dan kemampuan ibu hamil untuk memahami tingkat masalah kehamilan yang dialami, serta jenis fasilitas kesehatan yang cocok untuk menangani.

Kata kunci: Perilaku Pencarian Kesehatan, Kesehatan Ibu, Gangguan Kehamilan, Angka Kematian Ibu

INTRODUCTION

Pregnancy is a physiological process that causes physical and emotional changes in women. Pregnancy can proceed normally and sometimes not as expected, which is called a pregnancy complication. These risks are very dynamic and often go undetected⁽¹⁾. Delay in handling these risks can lead to fatal risks of maternal death. Efforts to reduce the Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are still the main issues of health problems that are integrated into the third target/achievement of the Sustainable Development Goals (SDGs) which are global commitments.⁽²⁾

The Maternal Mortality Rate (MMR) is one indicator of health development. The lower the MMR, the better health development in the region. In the last twenty years, MMR gave birth in Indonesia around 300 per 100,000 births. This means that the achievement is still far from the MMR target in the global SDGs commitment, which is 70 per 100,000 births, although it is known that the percentage of deliveries in health care facilities reaches 81.18% from 87%.⁽³⁾ This situation shows better indicators from the supply side but is not accompanied by a decrease in the MMR.

Various efforts have been made by the government in terms of financial guarantees/health insurance related to pregnancy and childbirth services, as well as related to medical actions during pregnancy and childbirth. Nearly 15% of pregnant women can experience complications that pose a risk of death⁽⁴⁾. Therefore, it is important to identify high-risk pregnancies in the early stages of pregnancy to direct appropriate treatment interventions.⁽⁴⁾

Medically, efforts to reduce MMR are focused on the direct causes of maternal death that occur 90% during delivery and immediately after delivery, including 28% bleeding, 24% eclampsia, 11% infection, 8% purpuric complications, 5% obstructed labor, 5% abortion, 5% obstetric trauma, 3% embolism, and others.

Efforts to reduce maternal mortality include integrated antenatal care for pregnant women periodically during pregnancy.⁽¹⁾ In A longitudinal study in a rural area, Puducherry, India, it was found that almost one-fifth of pregnant women in the region had a high pregnancy, so that early detection of high-risk pregnancies needs to be done at the Primary Health Care (PHC) level.⁽⁴⁾

In Indonesian, the government defines the ANC-MSS, known as 10T, as a guideline for the healthcare workers in providing antenatal care services⁽⁵⁾. This ANC-MSS consists of weight and height measurement, blood pressure measurement, fundal height measurement, tetanus toxoid immunization, iron supplementation, laboratory test, counseling, fetal heart rate monitoring, assessment of nutritional status and case management. Starting with 10 Ts, this ANC-MSS is called as 10 T in Indonesian language.⁽⁵⁾

This study aims to describe types of pregnancy complications, where to seek help when experiencing pregnancy complications, and how health facilities implemented ANC-MSS for analyzing the precision of pregnant women in choosing health facilities for treating pregnancy complications. The results of the study are expected to be used as material for preparing programs related to efforts to increase awareness and vigilance of pregnant women and their families during the pregnancy phase, as well as the preparedness of health facilities for the incidence of pregnancy complications.

METHODS

The analysis design of this study was cross-sectional following the 2018 Basic Health Research (Riskesdas) design. Riskesdas is a community-based health study to assess health development.

Riskesdas is carried out every five years by using indicators that can describe the achievements of health development at the national level up to the district/city level. The population of Riskesdas 2018 is all households in Indonesia, with a target sample of 300,000 households spread across 34 provinces throughout Indonesia.

*Corresponding author

(astridya.paramita@brin.go.id)

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Data using the 2018 Riskesdas sub data with following criteria, female household members aged 10-54 years with the status of married/divorced/widowed, had been pregnant, and had a pregnancy check-up with a health worker. The sample size that meets the requirements for this study is 75,155 people.

The 2018 Riskesdas sub data source used was taken from the Health Research and Development Agency (Balitbangkes) through access to akses www.litbang.kemkes.go.id with certain requirements and procedures. The data collection technique in this research is an interview using a structured questionnaire.⁽⁶⁾

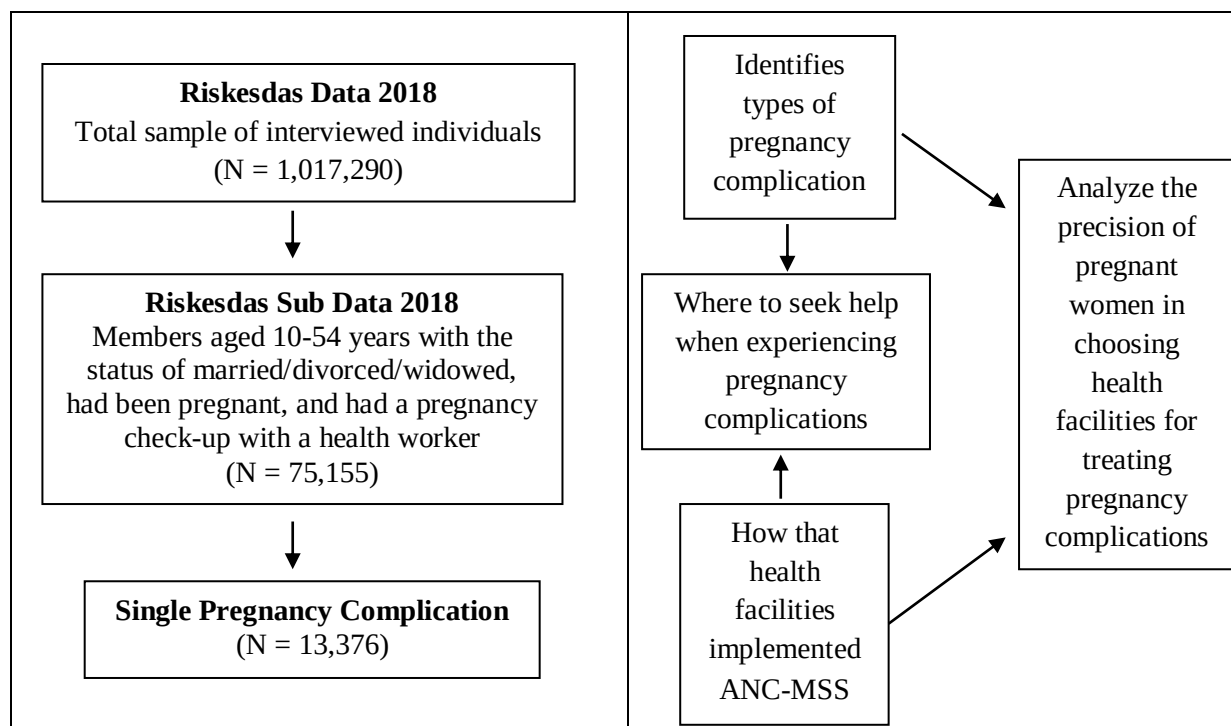


Figure 1. Flowchart of sample study and analytical framework

The variables in this study were the type of pregnancy complications (J.24), the behavior of seeking help from health workers (J.25), the health facility used (J.26), and the type of service received by pregnant women based on the type of health facility used (J19 – J23). A pregnant woman can convey more than one type of pregnancy complications she is experiencing. Therefore, in this analysis, the data were analyzed descriptively and presented in the form of cross-tabulation. Compliance of health facilities in ANC services is the implementation of ANC-MSS (10Ts) by health facilities, which means health facilities must do all aspects completely.

Limitation study

Because respondents can answer more than one type of pregnancy complications experienced, this analysis is limited to single

pregnancy complications and only displays descriptive data.

Research Ethics

The ethical clearance of this analysis is following 2018 Riskesdas ethical clearance from the Health Research Ethics Commission, Health Research and Development Agency Number LB.02.01/2/KE.024/2018. This study has also obtained approval for using the 2018 Riskesdas sub data from the Health Research and Development Agency, Ministry of Health with letter number IR.03.01/4/3464/2021. All human consent requirements as subjects were met and were approved prior to data collection.

RESULTS

Type of Pregnancy Complications

Table 1. Health Workers Help Seeking Based on Pregnancy Complications, Riskesdas 2018

Pregnancy Complications	n (13,376)	Health Workers Help Seeking (%)	
		Yes	No
Vomiting or diarrhea	9,106	62.7	37.3
High fever (3 days before labor)	245	75.1	4.9
Hypertension	1,202	85.9	14.1
Decreased fetal movement	162	88.9	11.1
Abnormal bleeding during pregnancy	891	94.8	5.2
Preterm premature rupture of membranes	531	92.1	7.9
Pain while Urinating	270	61.1	38.9
Prolonged Cough (> 2 weeks)	358	84.6	15.4
Palpitation and chest pain	128	58.6	41.4
Swollen legs accompanied with seizure	391	61.4	38.6
Anemia	18	5.6	94.4
Swollen legs	74	0.0	100.0

Source: Primary Riskesdas' 2018 data. Health Research and Development Agency

Table 1 is the distribution table of respondents' efforts in seeking help from health workers when experiencing pregnancy complications. From the 2018 Riskesdas sub data (n = 75,155 respondents), 17.8% (n = 13,376 respondents) of them had single pregnancy complications. Table 1 informs the 4 most common types of pregnancy complications being vomiting or diarrhea (n=9,016), hypertension (n=1,202), abnormal bleeding during pregnancy (n= 891), preterm premature rupture of membranes (n=531). Based on the preparedness of pregnant women against pregnancy complications experienced, more than 50% of respondents have to seek help from health workers. Four types of pregnancy complications that cause pregnant women to seek help from health workers are abnormal bleeding during pregnancy (94.8%)

and preterm premature rupture of membranes (92.1%), decreased fetal movement (88.9%), and hypertension (85.9%). Pregnancy complications such as leg swelling (100%), anemia (94.4%), palpitations and chest pain (41.4%), have not become important indicators for pregnant women to seek help from health workers.

Help-Seeking Behavior (Where To Seek Help When Experiencing Pregnancy Complications)

From 13,376 respondents who had single pregnancy complications, 68.72% (n' = 9,192 respondents) informed to immediately choose a health facility as a place to seek help when experiencing pregnancy complications.

Table 2. Health Facility Search Behavior Based on Pregnancy Complications Riskesdas 2018

Pregnancy Complications	n	n'	Health Facilities used (%)				
			Hospital	PHC	Health Worker Practice	Midwives/ Doctor calling	etc
Vomiting or diarrhea	9,106	5,714	10.7	40.1	48.8	0.3	0.1
High fever (3 days before labor)	245	184	12.5	44.0	43.5	0.0	0.0
Hypertension	1,202	1,032	24.1	35.5	40.4	0.0	0.0
Decreased fetal movement	162	144	26.4	34.7	38.9	0.0	0.0
Abnormal bleeding during pregnancy	891	845	39.6	19.6	40.2	0.4	0.1
Preterm premature rupture of membranes	531	489	28.8	26.2	44.4	0.4	0.2
Pain while Urinating	270	165	19.4	38.8	41.8	0.0	0.0

Table 2. Health Facility... (continues)

Pregnancy Complications	n	n'	Health Facilities used (%)				
			Hospital	PHC	Health Worker Practice	Midwives/ Doctor calling	etc
Prolonged Cough (> 2 weeks)	358	303	11.2	36.3	52.5	0.0	0.0
Palpitation and chest pain	128	75	12.0	41.3	46.7	0.0	0.0
Swollen legs accompanied with seizure	391	240	12.9	50.4	36.3	0.0	0.4
Anemia	18	1	100.0	0.0	0.0	0.0	0.0
Swollen legs	74	0	0.0	0.0	0.0	0.0	0.0
TOTAL	13,376	9,192	16.4	37.1	46.2	0.2	0.1

Source: Primary *Riskesdas*' 2018 data. Health Research and Development Agency.

Table 2, based on 4 types of pregnancy complications that cause pregnant women to seek help from health workers, the types of health facilities that are mostly used by pregnant women are the practice of health workers, followed by PHC. Pregnant women who experience pregnancy complications in the form of abnormal bleeding during pregnancy and preterm premature rupture of membranes more prefer to seek help in the practice of health workers, followed by the selection of hospitals. Meanwhile, pregnant women who have hypertension and decreased fetal movement are more likely to seek help in

the practice of health workers, followed by the selection of PHC. According to types of serious pregnancy complications, namely swollen legs accompanied with seizure, as many as 50.4% prefer to use the PHC in seeking help. Similarly, the percentage of pregnant women who experienced abnormal bleeding during pregnancy was found to be slightly higher (40.2%) choosing to use the practice of health workers than those who visited the hospital (39.6%).

Compliance of Health Facilities with ANC-MSS (10T)

Table 3. Performance of ANC Services (10 T) based on Place of Pregnancy Check-up. *Riskesdas* 2018

Places of Pregnancy Check-ups	Pregnancy Check-ups (ANC) 10 T (%)										
	Weight and Height	Blood Pressure	Fundal height measurement	Tetanus toxoid immunization	Iron supplementation	Laboratory test	Fetal heart rate monitoring	Assessment of Nutritional status	Counseling	Follow up service (TLK)	Counseling and TLK
Hospital	70.3	98.0	85.1	64.0	84.3	40.2	95.2	75.8	67.4	4.2	25.0
Clinic	63.9	97.5	83.0	67.9	85.7	25.6	93.6	74.5	67.5	4.5	24.0
PHC	79.3	98.2	92.7	79.3	93.5	34.3	94.9	90.5	72.9	3.9	19.1
Private Practice. Poskesdes. Posyandu	67.5	98.2	89.3	73.9	90.4	27.6	94.7	82.2	71.4	3.5	21.2
Nurse Practice	57.1	93.7	63.5	68.3	77.8	22.2	79.4	71.4	61.9	14.3	19.0

Source: Primary *Riskesdas*' 2018 data. Health Research and Development Agency

Table 3 informs that only the aspect of checking blood pressure, which is implemented by each health facility, reaches more than 90%. Next fetal health rate monitoring and iron implementation which achieves around 80-90%. Table 3 also informs that PHC are health facilities with the highest percentage of implementation of most aspects of ANC-MSS (10T). The hospital, which is a health facility with the most complete infrastructure, compared to other types of health facilities, is known to have the highest percentage of achievement in only 3 aspects, namely aspects of laboratory test (Hb and blood), fetal heart rate count, as well as aspects of counseling and case follow-up.

DISCUSSION

Pregnancy complications such as premature rupture of membranes, decreased fetal movement, and abnormal bleeding during pregnancy require immediate medical evaluation and action. However, complications such as nausea can be handled independently first to a certain extent. This kind of knowledge should be owned by pregnant women, considering that acupressure, ginger extract and lavender essential oil can help relieve symptoms.⁽⁷⁻¹⁰⁾ If not treated properly, prolonged vomiting will result in dehydration, electrolyte disturbances, or nutrient deficiencies. Pregnant women who experience nausea and vomiting up to 10 times for 24 hours will be bad for their health of pregnant women⁽¹¹⁾. Complaints of nausea and vomiting during pregnancy generally occur in about 80% of pregnant women in the first trimester and will subside before 20 weeks of gestation. This condition is normal for pregnant women, but if it persists and gets worse, it is thought to be related to vitamin B deficiency, psychological stress, and weight loss.⁽¹²⁾

Preeclampsia is a risk factor for maternal mortality in many developing countries and has become one of the priorities in the SDGs program for controlling and reducing maternal mortality. Age, frequency of pregnancy, and history of diabetes are factors associated with preeclampsia.⁽¹³⁾ Therefore, health-seeking behavior in pregnant women needs to be encouraged as a step to diagnose preeclampsia as early as possible and to prevent future complications of preeclampsia.⁽¹⁴⁾

The low initiative of pregnant women to seek help from health workers when experiencing anemia needs attention. The high prevalence of anemia in pregnant women increases the risk of maternal and fetal morbidity and is one of the main complications related to pregnancy (62.3%). Literacy status and poor obstetric history are risk factors for anemia in pregnant women.⁽¹⁵⁾

When complications occur during pregnancy, some people are alert enough to seek help from health workers, especially in the private practice of health workers and PHC (table 2). The private practice variable in this study is an accumulation of the types of private practice that exist, it cannot be separated from the private practice of obstetrics and gynecology specialists, midwives, general practitioners or nurses. Pregnant women who experience pregnancy complications mostly use the PHC to check for complications they are experiencing, even life-threatening complications. This choice could be due to the limited number of available nearby health facilities. The number of PHC is indeed much greater than the easily accessible hospitals. In addition, the ability of pregnant women to sort out complications that require certain competencies still needs to be explored further.

Pregnancy complications, such as hypertension, fetal movement, amniotic fluid out, and abnormal bleeding during pregnancy are conditions that can threaten the life of both the mother and the fetus.^{(16),(17)} The results show that the community prefers to seek help from the practice of health workers rather than the PHC when experiencing pregnancy complications. This is probably related to the preference of most pregnant women in choosing ANC providers, namely the private practice of health workers.⁽¹⁸⁾ The government anticipates complications in pregnancy at the PHC, through Basic obstetric neonatal emergency services (BONES) facilities. Community access to PHC is generally easier to reach than other health facilities. However, the preference of pregnant women in choosing ANC services and dealing with pregnancy complications is not the PHC. This study cannot explain why this is the case, but attention needs to be paid to the completeness of the existing facilities and infrastructure in

the two health care facilities. PHC with BONES facilities, are more prepared to handle these difficult conditions compared to places where health workers practice.

The findings in Tables 1 and 2 show that the majority of pregnant women choose private practice health facilities for health workers, followed by PHC. The highest percentage of the selection of health facilities for the private practice of health workers in all types of pregnancy complications, including serious pregnancy complications, indicates that there is a tendency for pregnant women to not be able to map the level of emergency pregnancy complications experienced, and the health facilities that should be addressed. Further research is needed to determine the factors that influence it.

Paying attention to the pattern of preparedness of pregnant women in seeking help when experiencing pregnancy complications (table 1) by accessing the PHC as the second highest percentage of health facilities, as well as adequate compliance with service standards (10T services) that have been determined (table 3), alternative policies what can be taken is an increase in the competence of health workers with a larger ratio or the addition of health resources and health service facilities in priority areas, for example in cases of high maternal mortality.^{(19),(20)}

A result of a prospective cohort study conducted in Nepal stated that routine screening activities need to be carried out in antenatal care services for early detection of morbidity in both high-risk and low-risk pregnant women. Need for early detection of high-risk pregnancies in antenatal care at the PHC level.⁽⁴⁾ The Indonesian government needs to pay attention to the components of laboratory tests, especially the test of hemoglobin and proteinuria levels, and counseling on ANC-MSS (10T) considering the positive contribution to ANC outcomes, namely safe delivery and healthy babies.⁽²¹⁾ Test of blood samples is a serious problem faced by most low to middle-income countries.⁽²²⁾ With the availability of competent health workers and complete service facilities, screening activities or early detection of risk pregnancies carried out according to MMS-ANC (10T) can provide

optimal outcomes in efforts to reduce MMR. The geographical condition of Indonesia, which is an archipelagic country with a developing country category, is an obstacle for the government in providing integrated pregnancy services that comply with ANC-MMS equipped with adequate test facilities.

Various efforts continue to be made by the government for even distribution of ANC-MMS (10T). Complete counseling materials are provided in the Maternal and Child Health book as a source of information for cadres and pregnant women.⁽²³⁾ However, the delivery of counseling materials also contributes to the understanding of pregnant women. A study showed an increase in knowledge of pregnant women after receiving counseling at antenatal care visits, especially if the midwife used visual aids.^(24,25)

CONCLUSION

Types of pregnancy complications that often cause pregnant women to seek help from health workers are abnormal bleeding during pregnancy, preterm premature rupture of membranes, decreased fetal movement, and hypertension. Pregnancy complications such as swollen legs, anemia, and palpitations and chest pain have not become important indicators for pregnant women to seek help from health workers.

Based on the four types of pregnancy complications, including serious pregnancy complications, the practice of health workers is a type of health facility that is mostly used by pregnant women rather than hospitals with more complete facilities. It shows that there is a tendency for pregnant women to not be able to map the level of emergency pregnancy complications experienced, with the suitability of the capabilities of the health facilities that should be addressed.

In accordance with the findings of our study, PHC is widely used by pregnant women who experience pregnancy complications because their locations are more evenly distributed. However, in terms of competence and availability of facilities, PHC is only able to handle the simplest cases of pregnancy complications. Therefore, a program to increase pregnant women's awareness and

knowledge is needed in assessing the severity of pregnancy complications they experience so that they can choose the right health facility. This campaign might be added to the maternal and child handbook that is already used as a national program. Increasing the availability and equal distribution of types of health facilities also need to be improved to support this campaign.

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