

High Risk Pregnancy at The Sempor Health Center

Eka Riyanti¹, Ani Suciati², Siti Mutoharoh^{3*}

^{1,2,3} Universitas Muhammadiyah Gombong

* corresponding author : ekariyanti@unimugo.ac.id

ARTICLE INFO

Article history

Received 10/05/2022

Revised 18/05/2022

Accepted 20/07/2022

Keywords

High Risk Pregnancy

Obstetric History

Pregnant Women

ABSTRACT

Background: A high-risk pregnancy is one of greater risk to the mother or her fetus than an uncomplicated pregnancy. So, it needs a health monitor system optimally. **Objective:** Analysing the factors of high-risk pregnancy in the public health center of Sempor Sub-district. **Method:** This study used a descriptive design and frequency distribution to show the result of this study. **Results:** This study involved 112 respondents. There were 75 respondents had low-risk pregnancy (67,0 %), 24 respondents had high-risk pregnancy (21.4 %), 13 respondents had very high-risk pregnancies (11,6 %). Then there were 11 respondents had pregnancy history (9,8%), 7 respondents (6,3%) had history of childbirth, 9 respondents (8,0%) had complications after childbirth. **Conclusion:** High-risk pregnancy in Public Health Center of Sempor Sub-district were 24 respondents whereas most pregnancy histories were 11 respondents. **Recommendations:** For further study will be expected to explore the factors of high-risk pregnancies.

This is an open access article under the [CC-BY-SA](#) license.



1. Introduction

The success of maternal health efforts can be seen from the Maternal Mortality Rate (MMR) indicator. The high MMR indicates low socioeconomic conditions and low health service facilities, including prenatal and obstetric services [1]. According to the World Health Organization (WHO) MMR is 99% in developing countries, namely the Southeast Asia region, MMR in Indonesia ranks first, reaching 214 per 100,000 live births [2]. The problem of death and illness in Indonesia is a large number of problems. MMR in Indonesia there are 102 deaths per 100,000 live births, maternal deaths due to pregnancy, childbirth and the puerperium [3].

MMR in Central Java province was around 475 cases in 2017. MMR in Central Java Province also decreased from 109.65 per 100,000 live births in 2016 to 88.05 per 100,000 live births in 2017. The highest cases were in Brebes district, namely 31 cases, followed by Pemalang 25 cases, and Kendal 25 cases. The lowest death cases were in Tegal Regency, there were 2 cases, Magelang 3 cases, and Sukoharjo 4 cases [1].

Maternal mortality in Kebumen Regency in 2016 there were 14 cases of maternal death consisting of 3 cases (21%) eclampsia, 6 cases (44%) bleeding, 2 cases (33.33%) pulmonary edema and 3 cases (21%) due to others (Ca Mammae, Fethy Liver and Hellp syndrome) [4]. The death rate during childbirth increases due to the age factor that is too young, too old, the distance between the next pregnancy is too close, and having many children. These factors can be supported by delays in recognizing risks, as well as assistance in health services [5].

Characteristics of pregnant women can be seen that the risk factor for pregnancy occurs in the age group < 20 years, and age > 35 years because this age is very unsafe for reproduction because it has decreased in their reproductive organs, while age < 20 years is due to reproductive organs. immature, other risk factors are maternal height less than 145 cm, maternal weight less than 45 kg, the distance between the last child and the previous pregnancy is less than 2 years, and the number

of children is more than 4 [5]. Pregnant women who experience medical disorders or health problems are included in the high risk category, so in these cases more intense and optimal nursing care is needed [6]. A high-risk pregnancy is a pregnancy that causes the mother and baby to get sick or die before birth [7].

Based on a preliminary study conducted at the Sempor 1 and 2 health centers, data on pregnant women for the past year were 1,132 pregnant women. While in the preliminary study in this study, data were taken from 248 pregnant women, of the number of pregnant women there were 13% who experienced high-risk pregnancies equivalent to 33 people. Primary data obtained. Researchers through interviews with 8 pregnant women found that 3 pregnant women were aware that they had a high risk of pregnancy, because they received education about high risk pregnancy while for 3 pregnant women did not know or realized for sure that they had a high risk pregnancy, 2 people are aware that they have a high risk of pregnancy but they say they are not aware that they are pregnant.

Based on the data, the formulation of the problem in this study is "Identifying high risk pregnancies in the Sempor Health Center area, Sempor sub-district". The general objective of this study was to analyze the factors of high risk pregnancy at the Sempor Health Center.

2. Materials and Method

This study uses a non-experimental research design using descriptive quantitative. The population obtained in the last year was 1,132 pregnant women, but in this study using data on pregnant women who checked their pregnancy at the Sempor 1 and 2 Health Centers as many as 248 for 3 months. Respondents of this study were taken by purposive sampling with inclusion criteria were all pregnant women who had their contents checked. Pregnant women who can communicate, read, and write. The exclusion criteria for this study were pregnant women who were not willing to be respondents. The number of samples in this study were 112 respondents. The instrument in this study used the Poedjie Rochyati Scorecard, Questionnaire on the characteristics of pregnant women, KIA Handbook. Data analysis in this study used descriptive analysis, namely explaining the characteristics of respondents consisting of age, parity, occupation, education, high risk pregnancy, and obstetric history which included: previous pregnancy history, previous delivery history, and previous postpartum history.

3. Results and Discussion

3.1. Respondent characteristics

Univariate analysis explains the characteristics of respondents. Based on the findings of this study, the majority of the pregnancies were low risk pregnancies (KRR) (67.0%), as well as for the low ones were very high risk pregnancies (11.6%) and the results are presented in Table 1.

Tabel 1. Distribution of Pregnancy Risk Frequency (N=112)

Kehamilan Risiko	N	%
KRR	75	67,0
KRT	24	21,4
KRST	13	11,6
Total	112	100,0

Sumber: Data Primer, 2020

Table heads should appear above the tables and tables should be placed in the main text near to the first time they are cited and; Figure captions should be below the figures and figures should be placed in the main text near to the first time they are cited. A caption on a single line should be centered. Insert figures and tables after they are cited in the text. (Arial 10pt)

Table 2. Distribution of Pregnancy Risk Frequency (N=112)

Pregnancy Risk	N	%
Low Risk Pregnancy (KRR)	75	67.0
High Risk Pregnancy (KRT)	24	21.4
Very High Risk Pregnancy (KRST)	13	11.6
Total	112	100

The results of the study of the characteristics of pregnant women that the age of pregnant women 20-35 years were more respondents (82.1%), the average parity of pregnant women was the most multipara (45.4%) and the most for the educational characteristics of pregnant women was Senior High School (51.8%). Meanwhile, for the characteristics of pregnant women based on occupation, the most are working as housewives (66.1%). and the results are presented in Table 2.

Table 3. Frequency Distribution Characteristics of Pregnant Women (N=112)

Characteristics of Pregnant Women	N	%
Pregnant mother's age		
20-35	92	82,1
<20/>35	20	17,9
Parity		
Nullipara	39	34,8
Primipara	10	8,9
Multipara	51	45,4
Grandemultipara	12	10,7
Education		
no school	0	0
primary school	16	14,3
secondary school	25	22,3
High School	58	51,8
University	13	11,6
Occupational		
Housewife	74	66,1
Entrepreneur	17	15,2
Farmer	8	7,1
Government employees	13	11,6

The results showed that the majority respondents were those who were not at risk, namely a history of previous pregnancies (90.2%), as well as for the minority who were at risk, namely a history of previous deliveries (9.8%) and the results are presented in Table 3.

Table 4. Frequency Distribution of Obstetric History

Obstetric History	Pregnancy history		birth history		postpartum history	
	N	%	N	%	N	%
No risk	101	90,2	105	93,8	103	92,0
Risk	11	9,8	7	6,3	9	8,0

3.2. Discussion

Based on the results of the study, there were 24 respondents (21.4%). This is in line with Linda's research in which pregnant women who had a score of 2 low-risk pregnancies were 49 (60.5%), for a score of 6-10 KRT were 30 (37.0%), and for scores > 12 were 2 (2.5%). Very high risk pregnancies (KRST) [8]. The results of this study are different from Razy's study with the results for high risk pregnancies as many as 50 people (63%), low risk pregnancies as many as 9 people (11%), and for very high risk pregnancies as many as 21 people (26%) [9].

Based on the results of the research analysis, it is said that pregnancy is high risk because most of the respondents are more than 35 years old, anemia, height less than 145 cm, history of SC and pregnancy interval of less than 2 years. The number of respondents who do not use family planning at an age that is still fertile can experience pregnancy at the age of more than 35 years. The average Hb of pregnant women is less than 11 g, so that pregnant women suffer from anemia, so the nutrition of pregnant women has not been fulfilled optimally. Meanwhile, for a history of Sectio caesarea, there are abnormalities where the placenta is below so surgery is carried out because it can minimize the danger to the fetus.

The results showed that the age characteristics of pregnant women were mostly 20 to less than 35 years old, with 92 respondents (82.1%). In line with the results of Purwanti's research from 160 respondents aged <20/>35 years, 58 respondents (36.2%), that low-risk pregnancies are pregnancies at the age of 20-35 years [10]. Hutabarat gave different results, namely the age group that often experiences preeclampsia is the productive age, namely the productive age of 20-35 years [11]. Mothers with an age at risk for pregnancy, the function of the reproductive organs is not optimal in dealing with pregnancy, so that it will affect pregnancy, and mothers are very at risk of experiencing various complications [12]. Based on the results of the research analysis, the characteristics of the age of pregnant women with the age of 20 to less than 35 are more, so that the dominant age is the age that is not at risk because at this age where the reproductive organs are mature and not dangerous for mothers who are pregnant at that age. While the psychology is mature when thinking and making a decision.

The results showed that the parity of multiparous pregnant women was 51 respondents (45.5%), while the lowest was primipara as many as 10 respondents (8.9%). Based on previous research which has similarities, most of the respondents have parity, namely multipara with a total of 27 respondents (54%), and the lowest is pregnant women with primiparous parity with a total of 23 respondents (46%) [13]. Based on the results of the analysis, it was found that the number of mothers who had given birth to two or more fetuses, this is a low risk in pregnancy because the reproductive organs are still functioning normally, in contrast to giving birth to more than 4 children, the risk of causing anemia, malnutrition, and triggering looseness in the uterus. abdominal wall which causes the uterine muscles to become weak, leading to weak contractions or complications during childbirth.

The results of this study indicate that the majority of pregnant women have high school education as many as 58 respondents (51.8%), while the minority are university. In line with Rochmatin's research, the most education is high school education, while the least is college/university [14]. In contrast to Fibriana's research, the highest education level in Cilacap district is elementary school 34.14% [15]. Based on the results of the research analysis that the education level of pregnant women at the Sempor Health Center, Sempor District, the majority have high school, and the minority level of education is college or academy. The level of education is closely related to one's knowledge. Education level has a big influence on attitude change towards healthy living behavior. So with a lack of knowledge or limited knowledge of mothers, husbands and families about high-risk pregnancies and the dangers that will be experienced, it will increase the incidence of high-risk pregnancies. So that mothers with higher education are expected to have knowledge about high-risk pregnancies and efforts to prevent and treat high-risk pregnancies so that mothers and fetuses prosper.

The results showed that the majority of pregnant women's occupations were housewives as many as 74 respondents (66.1%). Based on the theory of motivation, working mothers are to increase family income, avoid boredom, to fill spare time, and want to feel like having their own finances. During pregnancy there is no prohibition for a pregnant woman to work. So that for

women workers who are pregnant may remain in until before delivery. During work, do not be forced, so that pregnant women have sufficient rest time [16]. In line with Hidayah's research that most mothers do not work or as housewives as many as 201 respondents (59.8%) [17]. In contrast to Kundre's research which states that mothers who do not work or are housewives, their level of knowledge is less good than working mothers. Working mothers have many opportunities to get information [13]. Based on the results of the research analysis, it was found that the dominant one was housewives, so that in the study the work of pregnant women as housewives had little risk in their pregnancy because in their activities there were no rules and they were not too hard at work. Because too hard work can harm pregnant women and fetuses, which can lead to abortion and premature.

There were 101 respondents (90.2%) of previous pregnancies that were not at risk, while there were 11 respondents (9.8%) at risk. The research is in line, namely the results of a high previous pregnancy history caused by a history of abortion factors as much as (13.9%), because a pregnant woman who has a history of abortion is easy to get pregnant again, but to have an abortion is very easy [18]. Previous research that has different results with this study, namely the Nursal research study, found that there were 36 respondents (73.5%), who were at risk in the previous pregnancy history, while those who were not at risk were 13 respondents (26.5%) [19]. Based on the results of the research analysis, the predominant history of previous pregnancies in the results of this study were those that were not at risk because most pregnancies were less than 4 times, and the average pregnancy distance was 2 years and above. Meanwhile, for those who are at risk due to pregnancy factors, it is more equal to 4 times, abortion, pregnancy interval. Frequent parity and the spacing of previous pregnancies of less than 2 years triggers increased bleeding or fetal death caused by a decline in tissue elasticity due to repeated childbirth.

Previous delivery history showed that the majority were not at risk as many as 105 respondents (93.8%), and for those at risk as many as 7 respondents (6.2%). Research that is in line with this study obtained the results of a history of childbirth with action, namely (9.8%) [18], There is a difference with the results of previous studies, namely the history of childbirth at risk as many as 34 (69.4%), while for those who are not at risk there are 15 respondents (30.6%). High-risk pregnancies have a greater danger in pregnancy and childbirth compared to normal delivery or pregnancy, where the life and safety of the mother and fetus are threatened if not treated early, so it is necessary to detect early and be handled directly [19]. Based on the results of the research analysis for a history of previous labor that was risky because during labor they had a history of cesarean section and the number of deliveries was more than 4 times, while most of the other respondents for a history of previous deliveries did not have problems or during previous deliveries by normal delivery, and assisted birth attendants. doctor or midwife. If a pregnant woman has a history of cesarean section, her next pregnancy is likely to be at risk for another cesarean section, or there is a risk of bleeding.

Based on the results of the study that the majority of previous postpartum history obtained data that were not at risk as many as 103 respondents (92.0%), and for those who were at risk as many as 9 respondents (8.0%). In accordance with previous research, mothers who received poor postpartum care were 1.538 times more likely to experience maternal mortality during the puerperium than those who chose good postpartum care [20]. Based on the results of the analysis of the previous postpartum history, it was found that respondents were not at a large enough risk while those who were at little risk. Meanwhile, for respondents who are at risk in their previous postpartum history, the problems faced are that most respondents are at risk of experiencing heavy bleeding during the puerperium, while for those with infection there are only a few respondents, and for psychological problems there is also only one respondent because at this stage the respondent feels anxious when her child was born and felt uncomfortable with the child she was born, causing anxiety for her mother. Bleeding during puerperium can occur due to the risky age factor because when the age is < 20 then the mother's uterus is too young and the mother's pelvic bone has not yet reached its adult size. Meanwhile, for age > 35 then at this time the muscles of the uterus are weakened and the uterine organs are aging so that it triggers preeclampsia, premature rupture of membranes in pregnant women, postpartum hemorrhage.

4. Conclusion

High risk pregnancy in the Sempor Health Center 24 respondents (21.4%). The characteristics of respondents based on the age of pregnant women were mostly those who were not at risk, multigravida was the most parity, and the highest level of education was high school. Meanwhile,

most of the work as housewives. Obstetric history with the most risk was a history of previous pregnancies, namely 11 respondents.

Health centers need to disseminate information to health cadres in the village about high-risk pregnancies, and education about high-risk pregnancies to all pregnant women. For the science of nursing as a reference for the application of nursing care about high-risk pregnancies, especially in the assessment or early detection of pregnant women, and for the community it is expected to be a guide on how to detect or identify these high-risk pregnancies. Meanwhile, future researchers are expected to examine the factors that influence the occurrence of high-risk pregnancies.

Declaration

Acknowledgments: University of Muhammadiyah Gombong for providing funds for this research

Conflicts of Interest: "The authors declare no conflict of interest."

References

- [1] Dinkes Jateng, "Profil Kesehatan Provinsi Jawa Tengah Tahun 2017," Semarang, 2018.
- [2] WHO, "Maternal Mortality Retrieved from World Health Organization:," 2018. [Online]. Available: <http://who.int/news-room/fact-sheet-detail>.
- [3] Kemenkes RI, *Profil Kesehatan Indonesia. Kementerian Kesehatan Indonesia*. 2014.
- [4] Dinkes Kebumen, "Profil Kesehatan Kabupaten Kebumen Tahun 2016," Kebumen, 2017.
- [5] P. S. H, D. Hapsari, I. Dharmayanti, and N. Kusumawardani, "Faktor-Faktor Yang Berpengaruh Terhadap Risiko Kehamilan '4 Terlalu (4-T)' Pada Wanita Usia 10-59 Tahun (Analisis Riskesdas 2010)," *Media Penelit. dan Pengemb. Kesehat.*, vol. 24, no. 3, pp. 143–152, 2015, doi: 10.22435/mpk.v24i3.3649.143-152.
- [6] Robson & Waugh (ed)., *Patologi Pada Kehamilan Manajemen dan Asuhan Kebidanan*. Jakarta: EGC, 2012.
- [7] S. Indrawati, N. D., Damayanti, F. N., & Nurjanah, "Peningkatan Pengetahuan Dan Sikap Ibu Hamil Resiko Tinggi Dengan Penyuluhan Berbasis Media," *J. Kebidanan*, vol. 7, no. 1, p. 69, 2018, doi: 10.26714/jk.7.1.2018.69-79.
- [8] L. T. Rahayu, "Identifikasi Tingkat Resiko Kehamilan Dengan Menggunakan Skor Poedji Rochjati Dan Penanganan Persalinan," *Int. Inst. Environ. Dev.*, vol. 07/80, no. 2, p. 2, 2019, [Online]. Available: <https://arxiv.org/pdf/1707.06526.pdf><https://www.yrpri.org><http://weekly.cn><https://www.fordfoundation.org/>http://bibliotecavirtual.clacso.org.ar/Republica_Dominicana/ccp/20120731051903/p<http://webpc.cia>.
- [9] F. Razy, A. Sari, and R. Amalia, "Skinning Antenatal Care Accuracy To Maternal Complication At Dr. H. Moch Ansari Saleh Hospital Banjarmasin," vol. 6, no. Smichs, pp. 110–116, 2017, doi: 10.2991/smichs-17.2017.14.
- [10] S. Purwanti and Y. Trisnawati, "Determinan Faktor Penyebab Kejadian Perdarahan Post Partum Karena Atonia Uteri," *Bidan Prada*, vol. vol 6. No, pp. 97–107, 2015.
- [11] F. Hutabarat, R. A., Suparman, E., & Wagey, "Karakteristik pasien dengan preeklamsia di RSUP Prof. Dr. R. D. Kandou Manado," *J. e-Clinic*, vol. 4, pp. 31–35, 2016.
- [12] S. Prawirohardjo, *Ilmu Kebidanan*. Jakarta: PT. Bina Pustaka Sarwono Praworohardjo., 2014.
- [13] R. Kundre, E. Budiman, and J. Lolong, "Hubungan Tingkat Pendidikan, Pekerjaan, Status Ekonomidenganparitas," *e J. Keperawatan*, vol. 5, no. 1, p. 7, 2017.
- [14] H. Rochmatin, "Gambaran Determinan Kematian Ibu di Kota Surabaya Tahun

- 2015-2017,” *J. Biometrika dan Kependud.*, vol. 7, no. 2, p. 178, 2019, doi: 10.20473/jbk.v7i2.2018.178-187.
- [15] A. I. Fibriana, “Faktor-Faktor Risiko Yang Mempengaruhi Kematian Maternal,” UNDIP, 2017.
- [16] E. S. Walyani, *Asuhan Kebidanan & Pada Kehamilan*. Yogyakarta: Pustaka Baru Pres., 2015.
- [17] & K. Hidayah, P., Wahyuningsih, H. P., “Hubungan Tingkat Risiko Kehamilan dengan Kejadian Komplikasi Persalinan di RSUD Panembahan Senopati Bantul,” *J. Kesehat. Vokasional*, 2018.
- [18] M. R. Ambarwati, R. Yuliana, and N. T. Wisnu, “GAMBARAN FAKTOR PENYEBAB IBU HAMIL RESIKO TINGGI TAHUN 2005- 2010 (Di Polindes Sambikerep Kecamatan Rejoso Kabupaten Nganjuk),” *J. Penelit. Kesehat. Suara Forikes*, vol. II Nomor K, 2011.
- [19] G. A. N. Dien, “Kehamilan Risiko Tinggi Di Puskesmas Lubuk Gadang Kabupaten Solok Selatan,” *J. Kesehat. Masy. Andalas*, vol. 9, no. 1, pp. 23–28, 2015.
- [20] P. Rahmawati, “KEMATIAN MATERNAL PADA MASA NIFAS DI KABUPATEN SIDOARJO TAHUN 2012,” 2018.