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Description The Behavior And Empowerment Of Pregnant Women Improvement To Detect Early Complications During Pregnancy In Sigi Regency

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ABSTRACT

Introduction: women's empowerment is one strategy to improve the health status of mothers, children and families. The aim of the research is to describe the behavior of pregnant women in detecting pathologies and pregnancy emergencies as well as empowering the family.

Method: type of research is quantitative, descriptive. Research design was one group pretest and posttest design. Respondents were 85 pregnant women who were selected according to previously determined criteria. The sampling technique is nonprobability sampling, with a total sample. The research locations were four community health centers in Sigi district which had the highest data on high-risk pregnancies, namely Marawola, Dolo, Kaleke, and Biromaru Community Health Centers. The research was conducted from June-October 2023. The research instrument used a questionnaire and educational media using a pocket book. Univariate data analysis uses proportions.

Results: data was obtained that the distribution of respondents from each community health center varied. Characteristics of respondents and husbands include the highest level of education, secondary education (46 people/54.2% vs 47 people/55.29%), the highest family income is <1.5 million rupiah per month (54 people/63.53%), low risk pregnancies (56 people/50.59%) and high risk (42 people/49, 41%). Information about danger signs from health workers (77 people/90.59%), and knowing about danger sign information (61 people/71.76%). There was an increase in scores between the posttest and pretest for knowledge (9.35), attitudes (25.91) and skills regarding danger signs (25.91) and empowerment (16.27).

Recommendation: prenatal class activities for pregnant women need to be held regularly involving husbands/families so that information can be conveyed. Midwives' competence in providing education is needed to improve the behavior of pregnant women and empower mothers in the family.

Keywords: behavior, empowerment, education, prenatal class activities, pocket book

Introduction

Women's empowerment in Indonesia is a strategy to increase women's participation and ability to improve welfare within the family, community and state. The women's empowerment program has been implemented since 1978 or 45 years ago (BAPPENAS, 2017; Kementerian Pemberdayaan Perempuan dan Perlindungan Anak Republik Indonesia, 2020). The negative impact of the low involvement and empowerment of women in the health sector causes the still high maternal mortality rate (MMR), Infant Mortality Rate (IMR), the incidence of stunting and malnutrition in children under five years of age (toddlers), the incidence of iodine deficiency, or iron deficiency (Herinawati et al., 2021; Hermawati, 2019; Lowe et al., 2016; Merrell & Blackstone, 2020).

Women's empowerment is a process of awareness and capacity building for greater participation such as breadth, supervision and decision making as well as transformational actions that lead to the realization of equal rights between men and women (gender equity). This has been on the agenda at the G20 event in Bali in 2022, where world leaders have developed priority strategies to increase gender equality and empower women. There are six priorities that have been prepared, namely: 1) digital economy; 2) health; 3) employment; 4) living environment; 5) energy; and 6) education. Empowering women in the health sector is very important in order to seek health information, obtain rights and comprehensive health information (Nadia, 2022; Nikbakht Nasrabadi et al., 2015).

Maternal and neonatal morbidity and mortality are not only caused by obstetric causes. Non-obstetric factors such as knowledge and awareness, culture, costs, distance to health facilities, availability and quality of maternal health services also influence the need for health services. According to data from the Indonesian Ministry of Health, the inhibiting factor in achieving performance indicators for districts/cities providing maternal and newborn health services is that economic conditions and family/community education are still low, making people hesitant to come to health services. The low level of patient/family knowledge about danger signs and complications in mothers and newborns is influenced by midwives' failure to convey information (Massenga et al., 2023; Merrell & Blackstone, 2020; Nikbakht Nasrabadi et al., 2015; Prata et al., 2017).

Report from the Central Sulawesi Provincial Health Office (2020), Sigi Regency maternal and child health services almost exceeded targets on average, such as: achievement of coverage1 (100%), coverage 4 (92.6%), percentage of pregnant women who received iron tablets (83, 8%), Delivery by health personnel in a health facility (90.9%), Delivery assisted by health personnel (91.3%), and Postpartum services (85%). Special attention is needed for the lowest coverage of treatment of obstetric complications in Central Sulawesi Province, namely in Sigi Regency, 25.6%. Percentage of Babies with LBW 10%. The comparison of the percentage of IUGR babies in Sigi Regency and Province is 6.2% and the percentage of LBW babies in this case is still below the national target, namely 5.4% (Dinas Kesehatan Provinsi Sulawesi Tengah., 2021).

Based on data from the World Health Organization (2016), maternal health refers to women's health during pregnancy, baby birth

and the postpartum period. The direct causes of maternal death are due to accidents to the mother, due to heavy bleeding, high blood pressure, unsafe abortion, obstructed labor, as well as anemia as an indirect cause (WHO, UNAIDS, UNFPA, UNICEF, UN WOMEN, 2018; World Health Organization, 2018). The results of a study in The Gambia showed that there were four distant determinants related to the causes of maternal mortality, namely: (1) the heavy workload of pregnant women, (2) the division of labor in the household, (3) the favorable position of women in the household, and (4) limited access and utilization of health services. The low level of patient/family knowledge about danger signs and complications in mothers and newborns is influenced by midwives' failure to convey knowledge (Lowe et al., 2016).

The high maternal and infant mortality rate is caused by delay factors, in this case delay means fundamental failure which causes delays in decision making which has an impact on outcomes, namely the welfare of the mother and baby. According to Dana et al (2020), there is a change in the model of three causes of delays in patient referral, namely: 1) delays in phase 1 that occur within the household/family; 2) phase 2 delays which generally occur in the community; and 3) delays in phase 3 that occurred at the health system level (Actis Danna et al., 2020). This study also suggests that generally pregnant women have very limited related knowledge danger signs during pregnancy until postpartum, often ignoring the danger signs that arise, as well as low understanding of the severity of the complications experienced and efforts to seek help. medical personnel, did not prepare for the birth of the baby and experienced acts of domestic violence (Chol et al., 2019; Hermawati, 2019).

Data has not yet been obtained regarding the causes of low early detection of complications and emergencies in pregnant women by the community in Central Sulawesi Province, especially in Sigi Regency. This also influences the high rate of delay for pregnant women in preparing themselves for referral when experiencing an emergency.

The aim of the research is to determine the factors that contribute to the empowerment of pregnant women as a strategic effort to reduce complications during pregnancy in Sigi Regency.

Research Method

The type of research is quantitative, descriptive with a pre-experimental approach, namely pretest-posttest without control group design. In this study, respondents were selected from four health center areas in Sigi district, namely: Marawola, Kaleke, Dolo and Biromaru health centers with the consideration that data on high-risk pregnant women was highest in these areas. Respondents were selected through nonprobability sampling, total sampling. Inclusion and exclusion criteria have been determined before involving respondents. Inclusion criteria include: 1) pregnant women have an MCH book and a minimum gestational age of ≥ 28 weeks; 2) have a complete family; 3) regularly visit integrated service posts in the last 6 months; 4) have no history of chronic disease; 5) willing to be involved in research.

The instrument used self-reported questionnaire, and educational media in the

form of a pocket book about early detection of danger signs and emergencies during pregnancy until postpartum. The pocket book has been consulted with experts in the field of maternal and child health from the Denpasar Ministry of Health Polytechnic. Furthermore, the questionnaire prepared includes questions related to knowledge, attitudes and skills, as well as empowerment of pregnant women in the family.

Pregnant women were given a pretest before being given education by researchers assisted by enumerators during pregnant women's class activities at the Community Health Center. The pre-test lasts for 25-30 minutes, then continues with providing education using a pocket book for 60 minutes. Posttest activities are carried out 1-2 weeks after education. Data analysis was assisted by statistical analysis staff from Gadjah Mada University using Stata. Univariate analysis uses proportions. Before the research was carried out, the researcher had obtained ethical approval from the Ethics Committee of the Palu Ministry of Health Polytechnic.

Results and Discussions

A. Respondents and Husband Characteristics

The results obtained from this study are regarding the characteristics of respondents including education level, income, gravida, history of high risk pregnancy, parity, information about danger signs during pregnancy, and sources of information. Other information regarding the distribution of respondents from the four community health centers involved, namely Marawola Community Health Center (27 people/31.8%), Kaleke Community Health Center (24 people/28.2%), Dolo Community Health Center (23 people/27.1%) and Bureaumaru Community Health Center (11 people/12.9%). In the table below, the distribution of respondents from four Community Health Centers in Sigi Regency is shown.

Table 1. Distribution of the Number of Respondents in Four Community Health Centers in Sigi Regency, Palu in 2023

Health care center	Marawola	Kaleke	Dolo	Biromaru	Total
f	27	24	23	11	85
%	31.8	28.2	27.1	12.9	100

Respondent characteristics are related to the respondent's education level, husband, respondent's occupation, income, obstetric history, and affordability of health facilities. The results of the analysis showed that the respondent's education level was primary and secondary education. The husband's education level is most similar to the wife's education level. Most do not work (73 people out of 85 respondents). One third of respondents had an income of <1.5 million rupiah per month. The obstetric history of the respondents was obtained in part with the number of pregnancies <4 pregnancies, namely 43 respondents. Types of birth history with low risk were higher than those with high risk (56 people vs 29 people). All respondents live in rural areas (85 people/100%). A total of 68 respondents (80%) stated that they did not experience complications during pregnancy and 17 people (20%) stated that they experienced complications during pregnancy. Most respondents admitted that they knew about danger signs during pregnancy until postpartum (61 people/71.76%) and there were still 1/3 of respondents who did not know about danger signs (24 people/28.24%). Most of the information about danger signs is obtained from health workers (midwives). There are no obstacles related to transportation to get to health service facilities. The distance from the respondent's residence to the community health center mostly ranges from 5-15 minutes (40 people/47.06%). The table below shows the characteristics of the respondents.

Table 2. Characteristics of Pregnant Women at Four Community Health Centers in Sigi Regency, Palu (2023)

NO	Characteristics of respondents	Frequency (f)	.Percentage (%)
1.	Educational level:		
	Elementary	28	32.94
	Middle	46	54.12
	High	11	12.94
	Total	85	100.00
2.	Partner/husband		
	educational level:	30	35.29
	Elementary	47	55.29
	Middle	8	9.42
	High	85	100.00
	Total		
3.	Occupation:		
	Yes	12	14.12

NO	Characteristics of respondents	Frequency (f)	-.Percentage (%)
	No	73	85.88
	Total	85	100.00
4.	Partner/husband Occupation:	82	96.47
	Yes	3	3.53
	No	85	100.00
	Total		
5.	Husband and wife's income (in millions Rupiah/IDR):	1	1.18
	None	54	63.53
	<1,5	27	31.76
	>1,5-5	2	2.35
	≥5-<10	1	1.18
	≥10	85	100.00
	Total		
6.	Risk of Pregnancy level:		
	Mild	43	50.59
	High	42	49.41
	Total	85	100.00
7.	Risk on delivery experience:	56	65,88
	Mild	29	34,12
	High	85	100,00
	Total		
8.	Residence:		

NO	Characteristics of respondents	Frequency (f)	.Percentage (%)
	Rural	85	100.00
	Urban	0	0.00
	Total	85	100.00
9.	History complication during pregnancy:		
	Yes	17	20.00
	No	68	80.00
	Total	85	100.00
10.	Have knowledge about danger signs:		
	Yes	61	71.76
	No	24	28.24
	Total	85	100.00
11.	Danger signs information resources from health care provider:	77	90.59
	Ever heard	8	9.41
	Never heard	85	100.00
	Total		
12.	Travel time to the health center from home (in minutes):	34	40.00
	<5	40	47.06
	5-15	8	9.41
	15-30	3	3.53
	30-60	85	100.00

NO	Characteristics of respondents	Frequency (f)	.Percentage (%)
	Total		
13.	Transportation used:		
	Public transport/taxi	1	1.18
	Walk	9	10.59
	Private cars	1	1.18
	Motorbikes	70	82.35
	Others	3	3.53
	Total	85	100.00

The average number of respondents' for antenatal care (ANC) visits to health facilities and handled by trained health workers (midwives and obstetricians) was 3.5 times or 3-4 times during pregnancy.

B. Pretest and Posttest Results Regarding Respondent Behavior and Empowerment in Early Detection of Complications During Pregnancy until Postpartum

The assessment of respondent behavior includes assessing knowledge, attitudes and skills scores regarding danger signs during pregnancy until the postpartum period. The knowledge score is assessed from 10 question items with a maximum value of 10, the attitude score is assessed using a Likert score of 5 statement items with a maximum score of 10, and the skills score is assessed through 10 case example items regarding complications and emergency conditions at home.

Based on the results of the analysis, it was found that the average or mean pretest score regarding knowledge of danger signs of pregnancy was 8.74 and the average attitude regarding danger signs was 19.07. The pretest score on pregnant women's skills regarding emergency management from pregnancy to postpartum was 20.69. The pretest score related to empowering pregnant women was 14.65. There was an increase in scores on the posttest of knowledge (9.35), attitudes (25.91) and skills regarding danger signs (25.91). The posttest score for empowerment of pregnant women in the family regarding emergency management also increased (16.27). In the picture below, the results of the pretest and posttest scores for pregnant women's behavior and empowerment are shown.

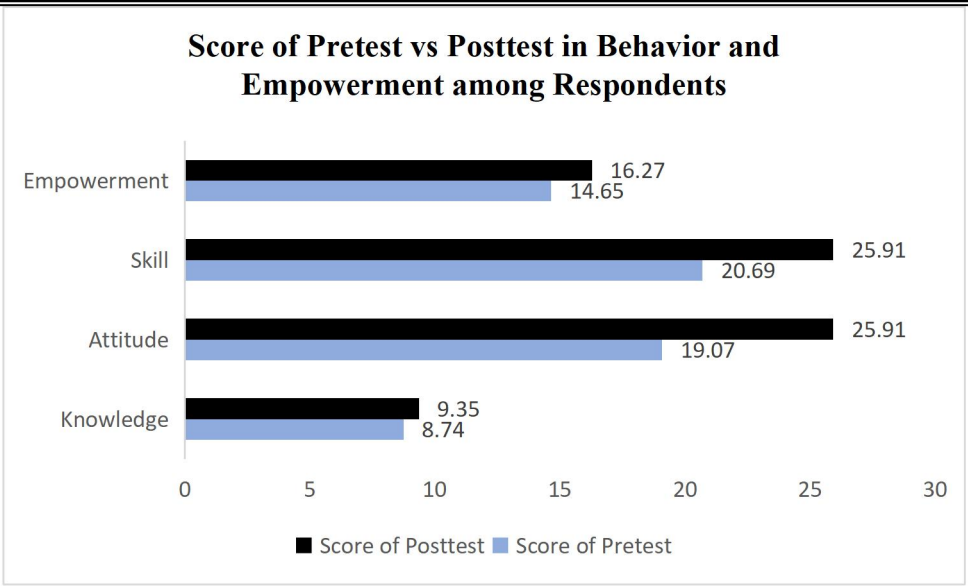

Figure 1. Description of the mean Pretest and Posttest Scores for Behavior and Empowerment of Respondents (n=85 people)

a. Respondent Characteristics and Behavior Scores and Empowerment of Pregnant Women

Empowerment of pregnant women is related to efforts to seek information from health workers, especially regarding pregnancy care and child health. The results of a previous study by Nasrabad (2015) in IFAD & ILO (2017) found that it is very important for women to obtain information related to health care and pregnancy from professional staff. This relates to women's rights to seek and obtain comprehensive information and information about efforts to manage the health of themselves and their families. There are four main focuses that are central to empowering women to seek health information, namely: 1) managing health management through better individual coping, stress management, and controlling situations; 2) collaborative care through a positive interaction approach with health professionals and being actively involved in decision making regarding their own health; 3) Individual development; and 4) Self-protection through lifestyle modification strategies, promotion of preventive behavior, increased self-care efforts, and appropriate treatment-seeking behavior (Chol et al., 2019; IFAD & ILO, 2017; Prata et al., 2017). In connection with these results, a study by Ngo, et al (2020) suggests that pregnant women who experience complications during pregnancy need more information from medical staff. Therefore, efforts are made to provide information through digital media so that it can be accessed more quickly and easily (Ngo et al., 2020).

A study by Chol., et al (2019) found that women's empowerment and women's autonomy in the family increased if women had jobs and higher incomes. In other words, there is a positive correlation between women's income and autonomy in the family. There is a strong correlation between low socio-economic levels of women and families, low education, low knowledge about the danger signs of pregnancy and postpartum, low autonomy and delays in recognizing problems. This delay is known as stage 1 delay. Furthermore, stage 2 delay is related to access to health facilities or seeking help at basic health facilities. So the delay in

stage 2 is caused by constraints on costs, transportation, geography and affordability of access to basic health services. Stage three delays are delays in treatment at referral health facilities. This condition is caused by the unpreparedness of mothers and families to prepare blood donations, limited equipment, infrastructure, limited competent personnel to manage emergency cases (Chol et al., 2019).

b. Increase in Posttest Scores and Influencing Determinants

The increase in scores on knowledge, attitudes and skills as well as women's empowerment can be caused by several factors. Providing information to pregnant women about danger signs and preparing referrals using e-books has a positive effect. Currently, with the increasing ability of people to buy gadgets and smartphones, it is easier for pregnant women to access various health-related information. Previous studies by Ngo., et al (2020), found that digitizing information makes it easier for clients to absorb information and is more interesting (Ngo et al., 2020). A previous study by Rahyani et al (2022) showed that providing training for midwives at Community Health Centers in Bali using video media was more effective in increasing knowledge and skills about complementary services. Training is declared effective if it is carried out using appropriate principles. The success of training is influenced by factors from the material provider, the media used, training participants who feel they need to be trained, adequate training infrastructure, as well as monitoring and evaluation of training activities. The media used can increase the intention and motivation of training participants to learn independently (Rahyani. et al., 2022).

Respondents' level of education, socio-economic, geographical factors, distance traveled or access to health facilities, husband and family support are several indicators known to be determinants of high levels of women's empowerment. Previous studies by Nikhbat (2015), Health information seeking is one of the most important activities in this regard. A wide range of capabilities have been reported as outcomes of health information seeking in several studies. As health information seeking is developed within personal-social interactions and also the health system context, it seems that the qualitative paradigm is appropriate to use in studies in this regard (Nikbakht Nasrabadi et al., 2015)

Conclusion

There was an increase in scores between the pretest and posttest on respondents' knowledge, attitudes and skills regarding danger signs. The women's empowerment score showed an increase in scores between before and after the intervention, although the increase was not as big as the knowledge, attitudes and skills scores.

Positive behavior of pregnant women is influenced by various factors including family characteristics, obstetric history and the woman's autonomy.

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Conflic of Interest

There is no conflict of interest with any party in this research.

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