

# Effectiveness Of Mentoring And Training In Increasing Integrated Service Post Cadre Skills Doing Early Detection Of Risk Factors In Pregnant

Ratna Dewi

Jurusan Kebidanan Politeknik Kesehatan  
Kementerian Kesehatan Bengkulu  
Bengkulu, Indonesia  
[ratna\\_kos@yahoo.com](mailto:ratna_kos@yahoo.com)

**Abstract—** *Maternal Mortality Rate 2015 in the world reaches 303.000 people and in Indonesia is 305 per 100.000 live births. About 80% of Maternal Mortality Rate are due to increased complications during pregnancy, childbirth and after childbirth. One of the causes is the presence of pregnant women who do not get treatment for complications due to lack of early detection in the community. Early detection can be done through home visits as a preliminary step for maintaining maternal health that can be done by cadres. Assistance and training affect cadre performance. The purpose of this study is to know the difference in the improvement of integrated service post cadre skills in detecting early risk factors in pregnant women through mentoring and training in the city of Bengkulu. The type of research used was quasy experimental research with a nonrandomized control group pretest posttest design. The population in this study were all integrated service post cadres in the city of Bengkulu. The sample size is 30 people. Sampling was carried out using purposive sampling technique. The results showed that average skill before treatment was 25.53 and the average skill after treatment was 79.58. The results there is a difference in cadre skills in the group in the mentoring group higher than in the training group.*

**Keywords—** *mentoring, training, early detection of risk factors, cadre.*

## I. INTRODUCTION

Maternal Mortality Rate in 2015 in the world reached 303,000 people, including the United States reaching 7900 people, North Africa 195,000 and Southeast Asia 61,000 of whom Indonesia in 2015 reached 126 per 100,000 live births, Philippines 114 per 100,000 live births, Vietnam 54 per 100,000 live births, Thailand 20 per 100,000 live births, Brunei 23 per 100,000 live births, and Malaysia 40 per 100,000 live births (WHO, 2015).

Indonesia's 2015 Demographic and Health Survey Data, Maternal Mortality Rate in Indonesia is 305 per 100,000 live births, this figure has slightly decreased from 2012 which is 359 per 100,000 live births. But it is still high compared to the results in 2007 which reached 228 per

100,000 live births. So that the figure is still very far from the SDGs target of 70 per 100,000 live births in 2030. About 80% of maternal deaths are Maternal Mortality Rate due to increased complications during pregnancy, childbirth and after childbirth (WHO, 2015).

The scope of handling complications in pregnant women in Indonesia in 2014 was 74.56% and increased in 2015 to 79.13% (Ministry of Health of the Republic of Indonesia, 2015). In Bengkulu Province the percentage of pregnant women who received complication treatment in 2015 was 69%, lower than in 2014 of 69.72% (Health Office of Bengkulu Province, 2015). Based on the results of the PWS KIA report, the Bengkulu City Health Service coverage of obstetric complications management in 2014 was 65.9% and in 2015 was 77.16% (Bengkulu City Health Office, 2015).

The presence of pregnant women who do not get treatment for complications is caused by a lack of recognition or early detection by families and communities. Early detection can be done through home visits as a first step in maintaining the health of pregnant women to prevent complications. This activity can be carried out proactively by health workers or trained staff in the community, for example PKK mothers, health cadres, youth cadets (Sartika, 2010).

The role of integrated service post cadres is a central point in monitoring the health of pregnant and postpartum mothers and the health of infants. The results of Tunggul's research, (2013) said that the achievement of early detection of pregnancies at risk by cadres is still very low from the target, due to the lack of cadre knowledge about maternal health problems and risk factors.

Through this program, it is expected that cadres can act as pregnant women companions in each of their working areas through activities at integrated service posts or actively visit pregnant women through home visits. Home visits and classes of pregnant women/prenatal classes are strategic and potential steps in reducing the risk of maternal death (Soubeiga et al, 2014).

Khomsah's research (2012) said that there were factors related to the role of integrated service post cadres namely perisisi factors of age, knowledge, education, attitudes while enabling factors were motivation, training and rewards and reinforcing factors namely PKK support



**PRESS**vision. Research by Sole. I, (2013) a cadre who stated that training was able to apply the knowledge he gained in detecting early pregnancy risk factors compared to cadres who did not receive training.

Khomsah's research results (2012) show that there is a relationship between training and the role of integrated service post cadres in early detection of maternal risk factors. According to Noerjoedianto's research, (2014) regarding the strengthening of integrated service post cadres in the efforts of early detection of maternal health in the District of Telanaipura Jambi to strengthen the performance of integrated service post cadres conducted integrated service post cadre training, cadre work meeting that supports the activity of integrated service post activities.

The results of the study by Setyaningsih et al (2016) stated that there was an increase in the mean score of integrated service post cadre knowledge of toddlers and pregnant women through participatory learning and action training. Mentoring and learning organization training (LO) influences integrated service posts, especially cadre performance (Aminuddin, et al, 2011).

Observation results in one of the integrated service posts obtained by the activities of cadres at integrated service posts only carried out the role of preparing space, weighing, and recording the results of the toddler scales alone. Interviews with several pregnant women found that cadres had never detected risk factors in pregnant women but had only recorded pregnant of hypertension. There are two kinds of hypertension management there are pharmacology and non-pharmacologic therapy. Non-pharmacologic therapy is considered safer to avoid unexpected side effects of pharmacological treatment. According to the Hypertension Management Guidelines on Cardiovascular Disease 2015, one of the recommended non-pharmacological treatment is to apply a healthy lifestyle by increasing the intake of vegetables and fruits that can provide benefits in blood pressure reduction [5].

Renin-Angiotensin-Aldosterone System (RAAS) is an essential system in regulating blood pressure. Renin is an enzyme produced and secreted in renal juxtaglomerular cells, working enzymatically on other plasma proteins, a globulin called the renin substrate (angiotensinogen), to release the 10-amino peptide (angiotensin I). A few seconds after the formation of angiotensin I, a modifying enzyme, which is located in the pulmonary endothelium of the lung called Angiotensin Converting Enzyme (ACE), it will convert angiotensin I to 8-amino-acid peptide (angiotensin II) [6].

Angiotensin II can increase blood pressure through several mechanisms. The mechanism is vasoconstriction, salt retention, and fluid. Vasoconstriction occurs mainly in the arterioles and is slightly weaker in the veins. Constriction of the arterioles will increase peripheral resistance, resulting in increased arterial pressure [6].

Angiotensin II will increase the secretion of antidiuretic hormone (ADH) and make someone often feel thirsty. ADH is produced in the hypothalamus (pituitary gland) and works on the kidneys to regulate urine osmolarity and urine volume. Increased ADH, will cause urine to be excreted, it causes urine becomes concentrated and high in osmolarity. This condition causes the extracellular fluid volume to be increased by extracting intracellular fluid. As a result, the blood volume increases so that it raises blood pressure [7].

Angiotensin II also stimulates the secretion of aldosterone hormone from the adrenal cortex. Aldosterone

works to regulate extracellular fluid volume. Aldosterone will reduce the excretion of NaCl (salt) by reversing it from the renal tubules. Increased concentration of NaCl will be diluted again by increasing the volume of extracellular fluid which will increase blood volume and blood pressure [7].

Watermelon can be used as a non-pharmacological therapy for hypertension. Potassium content in watermelon can reduce systolic and diastolic blood pressure by inhibiting renin release and increasing sodium and water excretion. Sodium and water retention is reduced due to women during integrated service post activities. The purpose of this study is to know the difference in the improvement of integrated service post cadre skills in detecting early risk factors in pregnant women through mentoring and training in the city of Bengkulu.

II. METHODS

The type of research used was quasy experimental research with a non-randomized control group pretest posttest design. The population in this study were all integrated service post cadres in the city of Bengkulu. The sample size of each group is 15 people, so the total sample is 30 people. Sampling was carried out using purposive sampling technique with inclusion criteria: education at least graduated from elementary and maximum high school or equivalent, aged 20-45 years, cadre working period of at least 6 months, had never attended training on early detection of risk factors with PoedjiRochjati score and willing to follow all activities. Exclusion criteria: not active in integrated service post activities within the last 6 months. The statistical test used is the independent sample t-test, paired t-test. Statistical tests in this study used a 95% confidence level.

III. RESULT

TABLE 1 AVERAGE SKILLS OF INTEGRATED SERVICE POST CADRES BEFORE AND AFTER MENTORING AND TRAINING

Variable	N	Mean		Std.
		Statistic	Std. Error	Deviation
<b>Skill</b>				
Before treatment	30	25.53	1.124	6.157
After treatment	30	79.58	2.506	13.726

TABLE 2 THE DIFFERENCE IS THE IMPROVEMENT IN THE SKILLS OF INTEGRATED SERVICE POST CADRES THROUGH MENTORING AND TRAININ

Skill	N	Mean Rank	Sum of Ranks	p
Training	15	10.40	156.00	0.001
Mentoring	15	20.60	309.00	

The results of the study showed that there was a higher difference in cadre skills in groups in the mentoring group than in the training group ( $p = 0.001$ ). This shows that to increase cadre skills in early detection of risk factors in pregnant women with cadre assistance is more effective than training. The improvement of cadre skills in the support group is caused by the attention given specifically by the officers.

The mentoring process as part of the outreach program is strongly influenced by the potential resources of the companion staff in the field. The ability to knowledge, attitudes and moral companions will influence the participation of the community as the assistance that has problems. As a companion, of course they have their respective roles and duties. A clear companion role enhances the performance of the facilitators and other field officers while assisting.

Community cadres are very important in efforts to save pregnant women through mentoring one cadre to accompany one high-risk pregnant woman. Mentoring activities are also integrated with existing activities in the community such as integrated service posts, Complication and Prevention Planning Program (P4K) as well as active information giving to parents to prevent early fishing among adolescents.

The results of this study are in line with the research of Setyaningsih et al (2016) that there is an increase in the average knowledge score of integrated service post cadres of toddlers and pregnant women through participatory learning and action training. Assistance and learning organization training (LO) influences integrated service post, especially cadre performance (Aminuddin, et al, 2011).

Khomsah's research (2012) shows that there is a relationship between training and the role of integrated service post cadres in early detection of maternal risk factors. According to Noerjoedianto's research, (2014) the strengthening of integrated service post cadres in the efforts of early detection of maternal health in Telanaipura sub-district Jambi to strengthen the performance of integrated service post cadres was conducted by integrated service post cadre training, a cadre meeting that supported the activities of integrated service post activities.

This is in line with some evidence that shows that the Birth Preparedness and Complication Readiness (BPCR) concept or the concept of childbirth preparation and readiness for complications in pregnancy and childbirth are significantly associated with a decrease in Maternal Mortality Rate (Soubeiga et al, 2014). Besides that, BPCR was also reported to be able to increase maternal knowledge about danger signs in pregnancy (Bhuta et al, 2011).

The role of cadres is a central point in monitoring the health of pregnant and postpartum mothers and the health of infants. Cadres are community groups who voluntarily dedicate themselves as village health facilitators who in their implementation help and

collaborate with village midwives as responsible for the health of pregnant women in their respective work areas.

The role of cadres is needed in community empowerment as an effort to improve health status in the community. Through this program, it is expected that cadres can act as pregnant women companions in each of their working areas through activities at integrated service posts or actively visit pregnant women through home visits. Home visits and classes of pregnant women / prenatal classes are strategic and potential steps in reducing the risk of maternal death (Soubeiga et al, 2014). Furthermore, the findings through the activity of home visits were reported to the village midwife for further treatment so that the health of pregnant women can be monitored properly.

#### V. CONCLUSION

The results of the study concluded that there were differences in cadre skills in the group in the mentoring group higher than in the training group ( $p = 0.001$ ).

The results of the study expect cadres to be active in increasing their knowledge and skills so that they can carry out their proper role, cadres are also expected to carry out early detection of risk factors for each pregnant woman in the integrated service post.

#### VI. REFERENCES

- [1] Aminuddin, Zulkifli, Djafar. (2011). Increasing the role of participatory integrated service posts through mentoring and training in monitoring growth and nutritional problems of children under five in Bone South Sulawesi. National public health journal volume 5 No. 5 April 2011.
- [2] Bengkulu City Health Office, 2015. Health Profile of Bengkulu City 2015. Bengkulu.
- [3] Bengkulu Provincial Health Office, 2015. Health Profile of Bengkulu Province 2015. Bengkulu.
- [4] Bhutta Z.A., Soofi S., Mohammad S., Memon Z. A., Ali I., Feroze A., et al. (2011). Improvement of Perinatal and Newborn Care in Rural Maternal Deaths Through Community-Based Strategies: A Cluster Randomized Effectiveness Trial. *Lancet*, 377 (9763): 977-988.
- [5] Noerjoedianto, Amir, Nurhusna, H. (2014). Keywords: integrated service post activities, active role of cadres, integrated activities. *Preliminary. Community Service Journal*, 29, 43-53.
- [6] RI Ministry of Health, 2016. Book of Maternal and Child Health. Republic of Indonesia Health Ministry. Jakarta.
- [7] Khomsah, N. (2012). Factors Related to the Participation of Post Cadres integrated
- [8] services in Detecting Risk Factors for Pregnant Women in the Health Center of BuayanNanikhomsahnpm: 1006820884.



- Advances in Health Sciences Research (AHSR) Volume 14
- PRESSika. (2010). Screening / Early Detection of Family-Based Pregnancy Risk in the Central Aceh District Community. <http://Sartika.blogspot.com/2010/04>.
- [10] Setyaningsih, Adriyani, Ulfah. (2016). Efforts to increase the knowledge of pregnant women and cadres of integrated postal services about the introduction of pregnancy danger signs in Banyumas Regency. JPKM. Vololome 22 No.3 July-December 2016.
- [11] Soebelga D, Chauvin L., Hatem M. A. &Johri M. (2014). Birth Preparedness and Complication Readiness (BPCR) Interventions to Reduce Maternal and Neonatal Mortality in Developing Countries: Systematic Review and Meta Analysis. BMC Pregnancy & Childbirth, Vol 14: 129.
- [12] Tunggal (2013). The Relationship between Knowledge and Cadre Attitude with Early Detection of Pregnancy Risk Factors in the New City Health Center Work Area of Kota Baru Regency. Vol.5 No.1 Year 2014.

