

**Role of Family in Early Detection Towards Pregnancy Complication Risk**

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Submitted: October 11, 2018 -Revised: November 4, 2018 -Accepted: December 2, 2018 -Published: December 31, 2018

**ABSTRACT**

**Background:** Inconveniences in pregnancy cause pathological condition, labor complication and risky puerperial period which threatening mother and infant safety if it's doesn't handled properly, then cause mortality and morbidity to the mother. One of prevention effort to reduce number of pregnancy complication is family support or family role in early pregnancy complication detection. Still amount of husband or family who doesn't provide access to health services and needs of the mother during pregnancy. This study is purposed to explain affect of family role in early detection towards pregnancy complication risk. **Methods:** This study used cross sectional research design. The sample was 80 pregnant mother and the family, selected using simple random sampling technique. The independent variable was role of family in early detection (ANC assistance, labor planning, early complication detection, fundings, transportation providing) and dependent variable was number of pregnancy complication risk. Insrument used in this study were questionnaire and MCH-book. Data were analyzed using *Chi Square* test. **Result:** ANC assistance influenced number of complication with p-value of 0.005, labor planning didn't influence number of complication with p-value of 0.313, early complication detection influenced complication with p-value of 0.023, funding didn't influence complication with p-value of 0.864 and transportation didn't influence complication with p-value of 0.864. **Conclusion:** Role of husband in ANC assistance and early complication detection influence number of pregnancy complication risk, if husband did the role in ANC assistance and early detection well so pregnancy complication would not occurs. Role of husband in labor planning, funding and transportation doesn't influence number of pregnancy complication risk. Pregnant mothers are expected can involve husband and the family in antenatal care process so pregnancy complication risk could be detected earlier. Earlier detection can help reducing further pregnancy complication. **Keywords:** role, family (husband), pregnancy complication

**INTRODUCTION**

Physiological changes when pregnancy cause inconveniences such as back pain, lower-abs pain, increasing frequent urination and dizziness. Those inconveniences will cause pathological condition, labor complication and risky puerperial period which threat mother and infant's safety, maternal mortality and morbidity if doesn't treat or handled immediately. Maternal and Infant Mortality and morbidity rate are big problems for developing country, like Indonesia. Mortality and morbidity can occur during pregnancy, labor, and puerperial period. In Indonesia, pregnancy complications are pregnancy hypertension 27.71% and abortion 1.6%, labor complication are bleeding 30.3%, congestion 1.8%, and puerperial complication are infection 7.3% and other causal 40.8%.<sup>(1)</sup>

Those complication will cause infant and maternal mortality if doesn't handled properly. In 2014, cause of Maternal Mortality Rate in East Java dominated by preeclampsia and eclampsia 31.04%, bleeding 25.57% and other risk factors 24.87%. Maternal Mortality Rate in East Java reached out 93.52 per 100.000 live births. This number is lower compared with 2013 that reached 97.39 per 100.000 live births.<sup>(2)</sup> Bangkalan Regency in 2015 had 13 cases of maternal mortality per 1000 live births. Most of these cases caused by preeclampsia with 6 cases.<sup>(3)</sup>

The cause can occur due to several factors such as a lack of public knowledge towards the importance of early pregnancy complication detection, lack of integrated care to pregnant mother, and lack of healthcare facilities. Those factors can increase both Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR). Maternal mortality related to pregnancy, labor and puerperial is closely related to pregnancy complications, labor complications, and other post-partum problems. To solve the problems, the government already launched P4K (Program on Delivery Planning and Prevention of Complications). The program must be supported by the family's active role in deciding problems in the family.

During pregnancy, a mother not only through the process and take care the pregnancy by herself alone but also other people who involved, that are family and health workers. Pregnant mother needs support, good nutrition supply, affordable health access, and family readiness in welcoming the newborn. Role of husband and

family is giving an easy access to healthcare service. Accompany pregnant mother to do a healthcare check in order to make an early detection and complication prevention is a form of family care towards pregnancy, responding every little complaint such as dizzy, nausea, and limp. Family should suggest and assist the mother to make a health check due to those complaint. In labor planning, role of the family is very important to help mother both physically and psychologically. A family needs to plan not only about a place to labor process, but also about funding, provide donor plans, as well as other supporting facilities. This is in line with government programs related to integrated antenatal services which is one of the activities is involving the mother and her family, especially the husband in maintaining the health and nutrition of pregnant women, preparing labor and preparedness if complications occur.

At this time, there are still many husbands / families who do not provide access to health and maternal needs during pregnancy. Families, especially husbands in Indonesia still have a very large role in determining decisions in family. Husbands/families who give a good support towards pregnancy will make the mothers and the baby get their proper rights and could go through pregnancy smoothly. Therefore, due to the importance of family role in early pregnancy complication detection, it is necessary to do research/study on the role of the family in early detection of the pregnancy complications risk. This study purposed to explain the affect of the family role towards early pregnancy complication risk.

**METHODS**

This reseach used cross sectional design. Population was pregnant mothers and the family, with population size of 100 mothers. Sample size was 80 mothers, selected using simple random sampling. The independent variable was role of family in early detection (ANC assistance, labor planning, early complication detection, fundings, transportation providing) and dependent variable was number of pregnancy complication risk. Insrument used in this study were questionnaire and MCH-book. The categorical data were presented in the form of frequence and percentage<sup>(4)</sup>, then analyzed using *Chi Square* test. This study got a permit from the etics committee.

**RESULTS**

**Family Role in Early Detection**

Family data that play a role in ANC assistance as many as 44 respondents (55%), did not play a role in labor planning as many as 41 respondents (51%), played a role in early detection of complications as many as 41 respondents (51%), played a role in funding as many as 51 respondents (64 %) and play a role in providing transportation as many as 51 respondents (64%).

Table 1. Distribution of ANC Assistance, Labor Planning, Early Complication Detection, Funding, Transportation Providing

| Variable                 | f  | %  |
|--------------------------|----|----|
| ANC Assistance           |    |    |
| Play a role              | 44 | 55 |
| Play no role             | 36 | 45 |
| Labor planning           |    |    |
| Play a role              | 39 | 49 |
| Play no role             | 41 | 51 |
| Early Detection          |    |    |
| Play a role              | 41 | 51 |
| Play no role             | 39 | 49 |
| Funding                  |    |    |
| Play a role              | 51 | 64 |
| Play no role             | 29 | 36 |
| Transportation providing |    |    |
| Play a role              | 51 | 64 |
| Play no role             | 29 | 29 |

**The Incident of Pregnancy Complication Risk**

Data of the incident of pregnancy complication risk was 28 incidents (35%).

Table 2. Distribution of the incident of pregnancy complication risk

| Variable                                | f  | %  |
|---|----|----|
| Incident of Pregnancy Complication Risk |    |    |
| Occur                                   | 28 | 35 |
| Not Occur                               | 52 | 65 |

**Impact of ANC Assistance, Labor Assistance, Early Complication Detection, Funding, and Providing Transportation on The Incidents of Pregnancy Complication Risk**

Tabel 3. Impact of ANC Assistance, Labor Assistance, Early Complication Detection, Funding, and Providing Transportation Towards Incidents of Pregnancy Complication Risk

| Variable                         | P value |
|----------------------------------|---------|
| ANC assistance                   | 0.005   |
| Labor planning                   | 0.313   |
| Early detection of complications | 0.023   |
| Funding                          | 0.864   |
| Transportation providing         | 0.864   |

ANC assistance influenced the incident of pregnancy complication risk with p-value of 0.005, labor planning did not influence the incident of pregnancy complications risk with p-value of 0.313, early complication detection influenced the incident of pregnancy complication risk with p-value of 0.023, funding didn't influence the incident of pregnancy complication risk with p-value of 0.864, transportation providing didn't influence the incident of pregnancy complication risk with p-value of 0.864.

**DISCUSSION**

**The Impact of ANC Assistance on the Incident of Pregnancy Complication Risk**

ANC assistance affects the risk of pregnancy complications. The role of husbands in good ANC assistance will reduce the risk of pregnancy complications. The role of the family can be influenced by several factors, one of them is Maduranese that hold on their culture tightly. Culture has big influence towards someone's attitude. Other influencing factor is education. Most of respondent (husband) had a senior high school and college educational background. The more education they had, the more knowledge and information they got related to support to their pregnant wives. The higher a person's education, the easier it is for them to receive information, and ultimately the more knowledge they have. Conversely, if a person has a low level of education, it will hinder the development of someone's attitude towards receiving information and newly introduced values. Occupation factors also play the big role, which the most husbands are entrepreneurs. It enable family or husband has more time to spend with pregnant mother, so it can help to solve problems and needs during pregnancy. Age factors also supporting family role in early detection. The average age of the husbands is in the range of >30 years old. In the range of those age, someone is mature enough is psychological aspect so the husbands can support to their pregnant wives. One of husband and family support is give a health service access. Assisting pregnant mother to do medical check as a form of early detection and prevention of pregnancy complications is one manifestation of family care for pregnancy. Husband support related with knowledge level about the danger signs of pregnancy. Job circle can make someone gain experience and knowledge both directly and indirectly. The increasing age of a person will changes physical and psychological aspects. On the psychological or mental, thinking level of someone is getting more mature.<sup>(5)</sup> Social support, especially family support play the important role to pregnant mother's behavior in maintaining their pregnancy. Pregnant mothers need a physical and psychological support that have to be fulfilled. Pregnant mothers also need treatment, rest and will feel happy if get a practical help. The role of husband and family who are the closest people to pregnant women is by responding to every little complaints such as nausea, dizziness, and weakness. Families should suggest and accompany pregnant mothers to make a medical check due those complaints.<sup>(6)</sup>

**The Impact of Labor Planning on the Incident of Pregnancy Complication Risk**

Labor planning doesn't influence incident of pregnancy complication risk. Husbands who play the role or not, will not affect the incidence of pregnancy risk. Factors related to incident of pregnancy and labor complications are social-demographic factor, previous obstetric history, non-obstetric history, and access to health service

factor. High educational mothers generally know what they have to do to make their health well-maintained, they often utilize health services compared to low educational mothers. Mother's working status shows a woman's status in family and society. Previous labor conditions influence present labor conditions. Mothers who have a risk complications history, 1.79 times experience current complications compared to mothers who do not have complications history. Mother's job factor, family income, family support, antenatal care quality are at risk to the 3rd trimester complications. Mother's job factor, family income and husband support are dominant risk factors to the 3rd trimester complications.<sup>(7)</sup> Indirectly risk factors related to pregnancy complications well-known as 4T (Too old, Too young, Too many, Too close) that is living in rural place, low education level, low economy level, difficult access to health services.<sup>(8)</sup> Husbands and families understand the dangers of childbirth process, the existence of safe delivery plans agreed between pregnant women, husbands and families with midwives, assisting mothers during labor and supporting mothers in their pregnancies, assisting mothers in preparing their births, plans for contraceptive methods post-partum agreed by the pregnant mother, husband and family with midwives.<sup>(1)</sup> Support given by the families (as closest part that respondent have) will raise response such as feel welcome, cared for, valued, save and get ease of resolving difficulties, so can face the pregnancy smoothly.<sup>(9)</sup>

### **The Impact of Early Complications Detection on the Incident of Pregnancy Complication Risk**

Early complication detection influence incident of pregnancy risk complication. Active role from the families prevent incident of pregnancy complication risk. 20-30 years old pregnant mothers is the safest pregnancy period because reproductive organs optimally works, good ovums quality so complication risk may not occur. Pregnancy under 20 years old is risky to complication. This caused by unready reproductive organs and ovums that will disrupt the growth of the fetus. Pregnancy above 30 years old also influence the quality of ovums, the older mother's age, the lower quality of their ovums. This will impact fetal growth and development as well as pregnancy complications including preeclampsia, prematurity and even abortion. A high education background allows a person to have good knowledge and information related to the care of pregnancy so understand the importance of pregnancy care and utilization of health services. Mothers with high education level are received information about pregnancy and it's risk easier. Good knowledge level about pregnancy care will reduce complication risk during pregnancy. Being housewives may make mothers had a bit emotional pressure. A stable emotional condition allows a pregnant woman to get comfort conditions while pregnant so that her pregnancy will be in good condition. Family role in early detection able to prevent the incident of pregnancy complication because husbands already aware about dangers of pregnancy complications so they always accompany their pregnant wives to the midwife, go into the examination room, accompany and listen to the explanation given by midwife. While at home, families also remind pregnant mother to consume multivitamins, asking condition and complaint, always remind visit schedule to midwife, help to do house tasks, the family also advising pregnant mother about what should and should not be done during pregnancy, the family always reminds or advises to eat foods that can be consumed or must abstain from certain foods for pregnant women. The family also plays a role in accompanying pregnant women while in pain. Husbands pay attention to the wife's pregnancy because the husband has gained knowledge about the importance of pregnancy care from various sources of information. This information can be obtained from health workers, cadres, or even from these pregnant women. Husband has realized about the dangers that occur if pregnant women experience complications, this active role of the husbands help the pregnant mother in maintaining pregnancy, because by treatment and prenatal care according to the standards, the risks of pregnancy complications can be minimized. When a husband accompany his wife into the examination room, the husband will get knowledge about the danger signs of pregnancy, so the husband is able to detect the risk of pregnancy earlier. If the detection can be done by the husband and family, the complications will be fast managed according to standards and can reduce the risk of further complications.

Family role (husband) in early complication detection can be the understanding of husband and the family about labor dangers, safe labor plan that has been agreed between pregnant mother, husband and the family with midwife, accompany mother when delivery process and support her pregnancy, husband help his wife in preparing the labor, existence of contraceptive methods after birth that has been agreed between pregnant mother, husband and the family with the midwife. This is appropriate with family function, that is healthcare function to maintain the health condition of family members in order to continue the high productivity.<sup>(10)</sup> Family support has a positive connection towards village midwives practice in antenatal care services.<sup>(11)</sup> Favorable pregnant mothers are tend to make an antenatal care visit 36 times more compared with unfavorable mothers.<sup>(12)</sup>

### **The Impact of Funding on the Incident of Pregnancy Complication Risk**

Research result shows that husband role in fundings or cost provision doesn't influence incident of pregnancy complication risk. Most of husbands are entrepreneurs and had a senior high school and college educational background. Husband role is very important during his wife's pregnancy. The role of the husband in providing costs is a form of attention and responsibility of the husband towards his wife, especially during pregnancy. Husbands have a responsibility in maintaining the health of their wives, especially in terms of financing. Husbands also has task of providing for their wives in their physical and mental aspects. Providing cost actually not only from husband or family. A family could saving money for childbirth preparation and critical things during pregnancy. It is possible not to be the main factor determining the risk of pregnancy complications. Job factors also play an important role which most husbands have entrepreneurial jobs. Entrepreneurial work allows families or husbands to have more time with pregnant women so that they can help solve problems and needs during pregnancy. High educational background allows someone to get knowledge and information related to support to pregnant mother. The higher someone's education, the easier they received an information, and in the end the more knowledge he had. Conversely, if a person has a low education level, it will hinder the development of someone's attitude towards the recipient of information and newly introduced values. This is appropriate with family function, that is healthcare function to maintain the health condition of family members in order to continue the high productivity.<sup>(10)</sup> Support given by the families (as closest part that respondent have) will raise response such as feel welcome, cared for, valued, save and get ease of resolving difficulties, so can face the pregnancy smoothly.<sup>(9)</sup> Husbands and families understand the dangers of childbirth process, the existence of safe delivery plans agreed between pregnant women, husbands and families with midwives, assisting mothers during labor and supporting mothers in their pregnancies, assisting mothers in preparing their births, plans for contraceptive methods post-partum agreed by the pregnant mother, husband and family with midwives.<sup>(11)</sup> Mother's job factor, family income and husband support are dominant risk factors to the 3rd trimester complications.<sup>(7)</sup> Indirectly risk factors related to pregnancy complications well-known as 4T (Too old, Too young, Too many, Too close) that is living in rural place, low education level, low economy level, difficult access to health services.<sup>(8)</sup>

### **The Impact of Transportation Providing on the Incident of Pregnancy Complication Risk**

Transportation providing doesn't influence incident of pregnancy complication risk. Most of Respondent's husband are entrepreneurs currently living in Bangkalan area. This job allows a family has a chance to prepare the transportation or they can rent if they doesn't owned the vehicles, with the affordable rent cost in Bangkalan for every economical class society. The transportation coverage in Bangkalan district is relatively easy to access so that people in the area have no difficulties in terms of transportation. This makes it possible that the role of providing transportation by the family is not a dominant factor determining the incidence of pregnancy complications. To become a standby-husband, must prepared with knowledge about efforts to save pregnant mother from 3-late, that are late to recognizing danger signs and making decisions, late reaching health facilities, and late getting help at health facilities. 4-too (4T), that are too young, too old, too many children, and too close gestational age, antenatal care, childbirth savings, blood donation, danger signs of pregnancy, childbirth and puerperium period, as well as the importance of preventing and overcoming pregnancy problems appropriately, standby transportation and the importance of referrals. Thus, the attention of husbands and families increases in understanding and taking on a more active role and giving affection to the wife especially before pregnancy, during pregnancy, childbirth and after childbirth.<sup>(1)</sup> The husband's role in preventing or treating pregnancy complications can be done by the way the husband plays many key roles during pregnancy, labor and after the baby is born. Their decisions and actions affect the pain and health, life and death of the mother and baby. First step that can be done by husband is planning his family. Birth restrictions and birth spans of at least 2 years, both for maintaining maternal and child health, considering that each pregnancy carries potential health risks for mothers, even though mothers look healthy and at low risk, unplanned pregnancies often become risky because they will lead them to abortion. Things to do before labor is preparing transportation to the hospital. Make sure that engine fuel is enough and the vehicle is in good condition. Save taxis number, ask neighbor help and tell them the Estimation Date of Labor (EDL) because they probably can come faster and help quickly, delegate husband's task to another family member if husband can't come to accompany his wife when labor process, prepare things to stay when accompanying wife.<sup>(13)</sup>

### CONCLUSION

The incident of pregnancy complication risk were influenced by husband role in ANC assistance and early complication. This research is expected to be developed and be used as research materials with researching other factors that influence family role in early detection towards the incident of pregnancy complications risk. Pregnant mothers are expected to invite or involve the husband in pregnancy care process so pregnancy complications risk can be detected earlier. Early detection can help to reduce further pregnancy complications.

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