

## Original Research

### PERCEPTION OF WOMEN'S EXPOSURE TO BIRTH IN THE FOREST- A CROSS-SECTIONAL STUDY ON YEI TRIBE, MERAUKE REGENCY, INDONESIA

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#### ABSTRACT

*In one of the districts in Papua, namely the Merauke Regency, the maternal mortality number in 2016 reached 17 cases, 13 cases in 2017, 6 cases in 2018, 9 cases in 2019, and 7 cases in 2020. Data in 2020 showed that 4,163 of the 5,377 deliveries by health workers assistance in Merauke Regency had not been fully achieved. There were 4,098 deliveries carried out in health care facilities. This study analyzed determinant factors on perceptions of the exile women giving birth in the forest from women of Yei Tribe, Poo Village, Merauke Regency, Indonesia. This study used analytic design methods with a cross-sectional approach. The sampling was non-probability with a total sample method of 57 mothers with toddlers. Univariate analysis was used to describe the characteristics of each research variable, including respondent characteristics, mother's knowledge, the role of community leaders, and the role of husband or family, while the dependent variable was the perception of women giving birth in the forest. This study found that there was a correlation between education (p-value 0.000; OR=13.33), knowledge (p-value 0.000; OR=133.00), the community leaders' role (p-value 0.009; OR=5.00), and husband's role (p-value 0.000; OR=28.00) with perceptions of the exile women giving birth in the forest at women of Yei Tribe, Poo Village, Merauke Regency, Indonesia. Therefore, knowledge is dominant in the perceptions of exiled women giving birth in the forest.*

**Keywords:** Exile women; maternal mortality; maternal health; human & health

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#### Hii j ni j tu

1. The maternal mortality for women's exposed birth in the forest on Tribe Kampung Poo, Merauke Regency is higher.
2. Mother's knowledge perceptions of women's exposure to birth in the forest were more dominant than community leader's roles, husband or family roles and respondent characteristics.

#### INTRODUCTION

In some areas, many people choose birth attendants with non-health workers, such as TBA (traditional birth attendance), which often negatively impacts the mother and the baby. The low coverage of delivery conducted by professional health workers is one of the factors associated with maternal and infant mortality (Phiri et al. 2014, Mgawadere et al. 2017).

World Health Organization estimates that around 830 women die daily due to pregnancy complications and birth processes. According to WHO in 2016, almost all

deaths occurred due to things that could not be prevented, one of which was childbirth which was carried out at home without health workers. Meanwhile, in 2013, deliveries in health facilities were 70.4%, and there were still 29.6% deliveries at home. Based on the Ministry of Health of the Republic of Indonesia, in 2014 that assistance in childbirth by competent health providers (i.e., specialist doctors, general practitioners, and midwives) had reached 87.1%, and traditional birth attendants at home performed 12.9% of birth attendants.



Some stillbirths are carried out by the mother herself or assisted by a shaman. This occurs because the role of customs and culture in the community is still typical in several regions in Indonesia. Apart from being partly due to access to unaffordable health care facilities, various other reasons, such as economic, social, and cultural factors upon the mother's choice to give birth alone or assisted by a traditional birth attendant (Chandra et al. 2019). Conceptions not administered by health workers and not carried out in health care facilities are the risk factors for maternal and child mortality in Indonesia.

The coverage of deliveries by health workers in health facilities in 2013 in Papua Province only reached 42.73%, while the national coverage showed a range of 69.99%. Data on the maternal mortality ratio in Papua is still the highest in Indonesia (305 per 100,000 live births). One of the causes of the high maternal mortality rate in Papua is birth delivery without a professional standardized process. Besides, it is also caused by unhealthy conditions of the mother, such as high bleeding during pregnancy and childbirth. In addition to maternal mortality, the same thing is also shared by infants and toddlers, whose mortality rate is still high.

In Merauke Regency, the maternal mortality rate in 2016 reached 17 cases, 13 cases in 2017, 6 cases in 2018, 9 cases in 2019, and 7 cases in 2020. In 2020, deliveries in Merauke Regency, which the health workers assist, had not been fully assisted where the target number was 5,377, but only 4,163 were achieved. Meanwhile, the Health Office in Merauke regency data presented that 4,098 of 5,377 deliveries were carried out in health care facilities.

Some ethnic groups in Eastern Indonesia (IBT) still have a "house of exile" culture for women giving birth. In Jagebob. District Merauke Regency, Papua, the house of exile (Tana Barambon Ambip) for women giving birth is Be'vak. This tradition applies to the tribe of Yei. Living in seclusion for women giving birth is a problematic condition compared to the current development of the modern medical world. The postpartum period for Eastern women after giving birth for 40 days in a Be'vak continues today. Mothers who have just given birth are ostracized from society and family. At the same time, their babies can only be visited by relatives closest to them and undergo some very unusual rituals for the world of health. Women who have given birth are compressed with hot water using an Eastern cloth every day with the excuse of improving blood circulation.

In addition, they also have to undergo the *Phangan* ritual (*sei*), which is the ritual of fumigating the mother and baby's bodies. The process of a fireplace is made right under the bed, then the mother and babysits or lies on it with the thought of drying the postpartum wounds. Fumigation is carried out every day for 40 days and is believed by the community to be an antidote to serious illness. This challenging process was carried out because there was fear from the parents. They thought that if the process was not carried out, the condition of the child's body would be weak and cause madness for the mother (Nina 2012, Anwar & Soerachman 2014, Setyowati 2016).

Based on the results of a preliminary study conducted in Jagebob 10 village, Merauke Regency, on April 24, 2020, to 20 mothers with toddlers, it showed that 13 mothers with toddlers still chose to give birth in the forest and were assisted by traditional healers. They preferred to give birth in the woods. This study aimed to analyze determinant factors of perceptions of the exile women giving birth in the forest in Poo Village, Merauke Regency, Papua, Indonesia.

## MATERIALS AND METHODS

This study was descriptive-analytic research with a cross-sectional approach. This study used non-probability sampling with a total sampling technique. The sample was 57 Yei mothers who had toddlers in Poo Village, Merauke Regency, Papua, Indonesia.

Univariate analysis was used to describe the characteristics of each research variable. The independent variables included respondent characteristics, mother's knowledge, community leaders' roles, and husband or family roles. The dependent variable was the perceptions of the exile women giving birth in the forest. This analysis was presented in the form of a frequency distribution table. Bivariate analysis determined a correlation between the independent and dependent variables with statistical tests following the existing data scale. This study was conducted from March-early June 2021, with 57 respondents filling out the questionnaire sheets. This study was approved under decree No. 176/KEPK/FKM-UNEJ/III/2021.

## RESULTS

The results of this research are univariate analysis and bivariate analysis.

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**Univariate analysis**

Table 1. Characteristics of respondents (n = 57)

Characteristics of respondents	Frequency	Percentage (%)
Age		
17-25 years	6	10.5
26-35 years	40	70.2
36-45 years	11	22.5
Occupation		
Housewives	6	10.5
PNS/POLRI/TNI	1	1.8
Farmer	50	87.1
Education		
Low	49	85.96
High	8	14.04
Knowledge		
Less	39	68.42
Good	18	31.58
The community leaders' role		
Less	35	61.40
Good	22	38.60
Husband's role		
Less	29	50.88
Good	28	49.12
Perceptions		
Less	42	73.68
Good	15	26.32
Total	57	100.0

**Bivariate analysis**

Table 2. Correlation between education with perceptions of the exiled women giving birth in the forest

Education	Perception of the exiled women				Total	
	Less		Good		F	%
	F	%	F	%		
Less	40	81.63	9	18.37	49	100
Good	2	25.00	6	75.00	8	100
Total	42	73.68	15	26.32	57	100

p-value = 0,000: OR = 13.33

Table 2 showed that respondents with fewer perceptions of the exiled women were more common to have low education (81.63%) than respondents with high education (25.00%). In contrast, respondents with good perceptions were more common to have high education (75%) than respondents with low education (18.37%). Statistical test results showed a p-value of 0.000<0.05. It indicated a correlation between education and perceptions of the exiled women giving birth in the forest with OR=13.33 (Ha accepted).

Table 3. Correlation between knowledge with perceptions of the exiled women giving birth in the forest

Knowledge	Perception of the exiled women				Total	
	Less		Good		F	%
	F	%	F	%		
Less	38	97.44	1	2.56	39	100
Good	4	22.22	14	77.78	18	100
Total	42	73.68	15	26.32	57	100

p-value = 0,000: OR = 133.00

Table 3 shows that respondents with fewer perceptions of the exiled women were more common to have less knowledge (97.44%) than respondents with good knowledge (22.22%). In contrast, respondents with good perceptions were more common to have good knowledge (77.78%) than respondents with less knowledge (2.56%). Statistical test results showed a p-value of 0.000 <0.05. It indicated a correlation between knowledge and perceptions of the exiled women giving birth in the forest with OR =133.00 (Ha accepted).

Table 4. Correlation between the community leaders' role with perceptions of the exiled women giving birth in the forest

Community's leader role	Perception of the exiled women				Total	
	Less		Good		F	%
	F	%	F	%		
Less	30	85.71	5	14.29	35	100
Good	12	54.55	10	45.45	22	100
Total	42	73.68	15	26.32	57	100

p-value = 0,009: OR = 5.00

Table 4 showed that respondents with fewer perceptions of the exiled women were more common to the minor role of the community leaders (85.71%) compared to respondents with good community leaders (54.55%). In contrast, respondents with good perceptions of the exiled women were more common with community leaders' roles (45.45%) compared to respondents with fewer community leaders' roles (14.29%). Statistical test results showed the p-value of 0.009 <0.05, indicating a correlation between the community leaders' role and the perceptions of the exiled women giving birth in the forest with OR=5.00 (Ha accepted).



Table 5. Correlation between husband's role with perceptions of the exiled women giving birth in the forest

Husband's role	Perception of the exiled women				Total	
	Less		Good		F	%
	F	%	F	%		
Less	28	96.55	1	3.45	29	100
Good	14	50.00	14	50.00	28	100
Total	42	73.68	15	26.32	57	100

p-value = 0,009; OR = 28.00

Table 5 showed that respondents with fewer perceptions of the exiled women were more common to more petite husband's role (96.55%) compared to respondents with a good husband's role (50.00%). In contrast, respondents with good perceptions of the exiled women were more common to a good husband's role (50.00%) compared to respondents with a more petite husband's role (3.45%). Statistical test results showed a p-value of 0.000 < 0.05. It indicated a correlation between the husband's role with perceptions of the exiled women giving birth in the forest with OR = 28.00 (Ha accepted).

**DISCUSSION**

The subjects in this study did not have sufficient knowledge of birth safety, affecting women to give birth in the forest temporarily. A study indicated that a pregnant woman is possessed by demons and considerably endangers society (Setyowati 2016). This perception makes them carry out delivery in the forest (temporary exiled). The lack of knowledge on childcare and pregnancy also occurred in a rural area in Ghana, where 90% of women were unable to more than four danger signs (i.e., lethargy, diarrhea, respiratory distress, and cyanosis) (Nuamah et al. 2019).

Differently in a study, a woman giving birth without professional health service assistance (homebirth) was also due to their worries about risky medical treatment that might happen (Jackson et al. 2020) and trauma of previously childbirth (LeBlanc & Kornelsen 2015). The perception of a woman on previous traumatic childbirth experience certainly impacts future delivery and can lower the need for professional health assistance (Agadjanian et al. 2016).

The role of a public figure, on the other hand, concerns a mother's decision regarding her delivery method and setting. The study's results on 30 respondents had proven the significance of public figures in maternal education concerning delivery. Besides, the study also

indicated a lack of literacy among pregnant women on the importance of regular antenatal care and delivery to health workers (Permatasari & Puspitasari 2018).

Husband has also become a determinant factor in determining the way of a woman's delivery during her pregnancy. A husband (included as family-in-bound) should consider the condition of his woman and the place for delivery (Sujana et al. 2016, Ashar et al. 2019). Besides, a husband should address maternal health education that can benefit the woman's and child's health (Lewis et al. 2015, Onchong'a et al. 2016). In this situation, a study conducted in Tuatunu Village, Gerunggang District, Pangkalpinang City, Indonesia, pointed out a correlation between family support with the selection of birth attendants (p-value=0,010) (Kurrohman 2017).

Childbirth should be carried out carefully. This study addressed a significant clue for women and husbands to reconsider childcare and safety that might occur due to unhealthy and improper services. They were suggested to focus on the delivery process and postnatal care (PNC). This is significant for identifying, ensuring, and managing maternal and newborn complications during the first six weeks after birth (Habte et al. 2021).

**Strength and limitation**

The study addresses a significant issue of maternal mortality in a specific district in Papua, Indonesia. The study used a non-probability total sampling method, which enabled the researchers to gather data from all eligible participants. The study suggests that knowledge is dominant in the perceptions of exiled women giving birth in the forest, which can help in designing appropriate interventions to improve maternal health in the region. The sample size is relatively small, with only 57 mothers with toddlers, which may not be representative of the entire population of exiled women in the forest. which limits the generalizability of the findings to other regions in Papua or Indonesia.

**CONCLUSION**

73.88% of Yei Tribe women in Poo Xillage, Merauke Regency, had fewer perceptions of the exile women giving birth in the forest. Education, knowledge, the community leaders' role, and the husband's role correlated with the perceptions of the exiled women giving birth in the forest. Most Women in Yei Tribe, Poo Xillage, and Merauke Regency had less knowledge of safe childbirth, including the impact of childbirth in the forest.



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## Conflict of interest

None0

## Funding disclosure

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## Author contribution

FPSI, RA, IR and DR were conceptual idea and analysis data. RK write, revised and prepared the draft of the manuscript. A was manuscript arrangement to the final content.

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