

## ORIGINAL RESEARCH ARTICLE

# Behavioural determinants of women of reproductive age in the indigenous Talang Mamak Ethnic group

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## Abstract

The Talang Mamak tribe is an indigenous tribe that lives in groups (the extended family) in rural locations. All decisions are made after much deliberation. Traditional birth attendants are still used for childbirth. The objective of the study is to analyze the factors that influence reproductive health-needing behavior among Talang Mamak women of reproductive age. With 160 respondents, data was analyzed using logistic regression. The study discovered that education  $p = 0.001$  with  $PR=4,738$ , knowledge  $p = 0.001$  with  $PR=13,800$ , attitude  $p = 0.001$  with  $PR=3,133$ , and tradition  $p = 0.001$  with  $PR=226.66$  are variables that influence the behavior of women of reproductive age toward needing reproductive health services. Among the five variables influencing the outcome, one stands out: tradition, which has an  $Exp(\beta)$  value of 192.422. The multivariate results show that three variables are included in the modeling: tradition  $p = 0.001$ , knowledge  $p = 0.001$ , and education  $p = 0.001$ . Good traditions, good knowledge, and higher education in the Talang Mamak tribe have a more behavioral probability of needing reproductive health services in women of reproductive age 99%, while another 1% probability by other variables is not examined in this study. (*Afr J Reprod Health 2024; 28 [2]: 67-72*).

**Keywords:** Health behavior, women of reproductive age, Talang Mamak, indigenous tribe, reproductive health

## Résumé

La tribu Talang Mamak est une tribu indigène qui vit en groupes (la famille élargie) dans les zones rurales. Toutes les décisions sont prises après de longues délibérations. Les accoucheuses traditionnelles sont encore utilisées pour l'accouchement. L'objectif de l'étude est d'analyser les facteurs qui influencent le comportement en matière de santé reproductive chez les femmes Talang Mamak en âge de procréer. Avec 160 répondants, les données ont été analysées par régression logistique. L'étude a découvert que l'éducation  $p = 0,001$  avec  $PR = 4 738$ , la connaissance  $p = 0,001$  avec  $PR = 13 800$ , l'attitude  $p = 0,001$  avec  $PR = 3 133$  et la tradition  $p = 0,001$  avec  $PR = 226,66$  sont des variables qui influencent le comportement des femmes en situation de procréation. âge pour avoir besoin de services de santé reproductive. Parmi les cinq variables influençant le résultat, une se démarque : la tradition, qui a une valeur  $Exp(\beta)$  de 192,422. Les résultats multivariés montrent que trois variables sont incluses dans la modélisation : tradition  $p = 0,001$ , connaissances  $p = 0,001$  et éducation  $p = 0,001$ . Les bonnes traditions, les bonnes connaissances et l'enseignement supérieur dans la tribu Talang Mamak ont une probabilité comportementale plus élevée d'avoir besoin de services de santé reproductive chez les femmes en âge de procréer (99 %), tandis qu'une autre probabilité de 1 % selon d'autres variables n'est pas examinée dans cette étude. (*Afr J Reprod Health 2024; 28 [2]: 67-72*).

**Mots-clés:** Comportement de santé, femmes en âge de procréer, Talang Mamak, tribu autochtone, santé reproductive

## Introduction

Reproductive health is defined as a state of complete physical, mental, and social well-being, not merely free from disease or disability in all matters relating to the reproductive system<sup>1</sup>. The scope of reproductive health according to WHO is maternal and child health (MCH), adolescent reproductive health, sexually transmitted infections (STIs), elderly reproductive health, and other reproductive

health<sup>2</sup>. Despite advances in health and technology, women still face barriers to accessing services and resources related to reproductive health. These barriers are still evident at various stages of women's lives from adolescence to menopause<sup>3</sup>. The existence of barriers to providing reproductive health services can result in serious health threats ranging from teenage pregnancy, abortion, sexually transmitted infections, and maternal mortality<sup>4</sup>.

Globally, almost 25% of pregnancies are in the teenage years<sup>5</sup>. Data in Indonesia shows that teenage births are quite high at the age of 15-19 years old (47.4%), and age 20-24 years old (16.3%). Although the Maternal Mortality Rate (MMR) has generally decreased from 390 to 305 per 100,000 live births, it has not yet reached the MDGs target of 102 deaths per 100,000 live births in 2015 and the SDG target of 70 deaths per 100,000 live births by 2023<sup>6</sup>. Riau Province is among the provinces with the top 10 MMR cases in Indonesia. The district that still has a high MMR in Riau province is Indragiri Hulu Regency with 10 cases in 2021. One of the areas in this district that still has a high MMR case is Rakit Kulim District with the number of MMR in 2018 (2 cases), 2019 (1 case), 2020 (1 case), and 2021 (1 case). Based on the preliminary survey, one of the contributors to MMR was found in the indigenous Talang Mamak tribe.

The Talang Mamak tribe adheres to the Matrilineal kinship system, where inheritance is passed down to the woman while the position as a customary leader or others is passed down to the son of a sister or from the mother's side. They live with large families and in groups. If a problem arises, the decision must be founded on the outcomes of the family deliberations, including on health issues. In the seeking for health and treatment, it always involves family, relatives, or community and traditional leaders who are thought to be appropriate in making decisions<sup>7</sup>.

Low levels of education have an impact on women's knowledge of health issues<sup>8</sup>, socioeconomic disadvantage, and low income may make it difficult for them to meet their health needs<sup>9</sup>, and Indonesia's sociocultural system may occasionally make it challenging for women to make decisions regarding their health care<sup>10,11</sup>. Due to cultural expectations that unmarried women should not engage in sexual activity or get treatments related to reproductive health, several research has demonstrated that unmarried women have larger access barriers to reproductive health services<sup>12</sup>. Other research has demonstrated that gender stereotypes and stigma also influence how women behave while seeking out reproductive health care<sup>13</sup>.

In the Talang Mamak tribe, women of reproductive age who desire reproductive health

services rank contraceptive counseling at 25%, contraceptive installation at 21.8%, pregnancy counseling, and anemia testing at 25%, postpartum visits at 20%, and counseling for other reproductive issues at 15%, according to a preliminary survey.

The objective of the study was to analyze the determinants of reproductive health-needing behavior in women of reproductive age in the indigenous Talang Mamak tribe.

## Methods

This study is quantitative. A cross-sectional technique was used for quantitative design. The total sample was used with 160 respondents from the indigenous Talang Mamak tribe, with the requirement for respondents being women of reproductive age 15-49 years old. From June to August 2023, data was analyzed using the Chi-square test, Logistic Regression, and Multivariate Research in the working region of Puskesmas Rakit Kulim, Indragiri Hulu Regency. Three villages in particular: Limau River Village, Ekok River Village, and Talang Perigi Village. This location was chosen because there are still many scattered indigenous Talang Mamak people.

## Results

The results showed 160 women of reproductive age aged 15-29 years old (63.1%), married 88 people (55%), had been pregnant 66 people (75%), delivery assisted by non-health workers as many as 50 people (56.8%), the results as shown in Table 1

**Table 1:** Characteristics of respondents

No	Variable	F	%
1	<b>Age</b>		
	15-29 years	101	63,1
	30-49 years	59	36,9
2	<b>Marital Status</b>		
	Married	88	55
	Not Yet	72	45
3	<b>History of Pregnancy (N = 88)</b>		
	Ever pregnant	66	75
	Not Pregnant	22	25
4	<b>History of delivery attendants (N = 88)</b>		
	Non-health workers	50	56,8
	Health worker	38	43,2

**Table 2:** Behavioral determinants of women of reproductive age in needing reproductive health services

No	Variable	Behavior of reproductive age		women of		Totally	P value	PR	95% Confidence Interval		
		Negative %	Positif %	f	%				Lower	Upper	
1	<b>Education</b>						0,001	4,738	2.422	9.266	
	Low	63	71,6	25	28,4	88					100
	High	25	34,7	47	65,3	72					100
2	<b>Income</b>						0,911	1,090	.583	2.039	
	Low	47	54	40	46	87					100
	High	41	56,2	32	43,8	73					100
3	<b>Knowledge</b>						0,001	13,800	6.438	29.581	
	Low	19	25,0	57	75,0	86					100
	High	69	82,1	15	17,9	74					100
4	<b>Attitude</b>						0,001	3,133	1.637	5.998	
	Negative	55	68,8	25	31,2	80					100
	Positive	33	41,2	47	58,8	80					100
5	<b>Tradition</b>						0,001	226,667	57.830	888.429	
	None	3	4,5	64	95,5	67					100
	Available	85	91,4	8	8,6	93					100
6	<b>Social support</b>						0,001	5,451	2.653	11.200	
	Low	50	78,1	14	21,9	64					100
	High	38	39,6	58	60,4	96					100
		88	55	72	45	160	100				

**Table 3:** Multivariate results of variables tradition, knowledge, and education

Number	Variable	B	S.E.	Wald	Sig.	Exp(B)	95.0% EXP(B)	C.I.for
							Lower	Upper
1	Tradition	5.260	.826	40.521	.000	192.422	38.101	971.792
2	Knowledge	2.382	.739	10.384	.000	.001	10.830	2.543
3	Education	1.888	.743	6.463	.011	6.607	1.541	28.325
	Constant	-4.471	.852	27.525	.000	.000	.011	

**Behavioral determinants of women of reproductive age in needing reproductive health services**

The study found the behavior of Women of reproductive age is significantly influenced by needing Reproductive Health Services i.e. education with P=0.001 with a PR value of 4.738 means women of reproductive age with low education are 4.7 times more likely to behave negatively in needing Reproductive Health Services. Then the attitude variable obtained a value

of P = 0.001, PR = 3.133, meaning that women of reproductive age with a negative attitude are 3.1 times at risk of having negative behavior in needing reproductive health services, then the tradition variable with P = 0.001, PR = 226.667 meaning that women of reproductive age with tradition are at risk of 226.6 times having negative behavior in needing reproductive health services. Social support variable P = 0.001, PR = 5.451 meaning that women of reproductive age with low social support are 5.4 times at risk of having negative behavior in needing reproductive health services, as shown in Table 2.

### ***The most dominant behavior of reproductive-age women is needing reproductive health services***

The findings of the multivariate analysis showed that three of the five factors included in the modeling were significantly interrelated multivariate, namely tradition  $p = 0.001$ , knowledge  $p = 0.001$ , and education  $p = 0.001$ . Tradition is the most influential variable, with an Exp(B) value of 192.422, implying that tradition influences the behavior of women of reproductive age 192 times more than other variables, as seen in Table 3.

The following equation model can be determined using the results of Table 3

$$P = \frac{1}{1 + 2.7^{-(4.471 + 5.260 + 2.382 + 1.8888)}} \\ = 0.99 \times 100 = 99\%$$

This means that good traditions, good knowledge, and higher education in the Talang Mamak tribe have a more behavioral probability of needing reproductive health services in women of reproductive age 99%, while another 1% probability by other variables is not examined in this study.

## **Discussion**

Based on the findings of a study on the behavioral determinants of reproductive-age women with low education 4.7 times the risk of negative behavior in needing reproductive health services, inadequate education has an impact on health awareness and increases risky behavior<sup>8,14,15,16</sup>. Other studies reveal that reproductive health awareness is still relatively low in rural regions, particularly among unmarried women, due to a lack of access to information<sup>17,18</sup>. Individual reproductive health service utilization is substantially influenced by education<sup>19,20</sup>. Good service utilization results in better overall health outcomes<sup>21</sup>.

The findings of this study also revealed that women of reproductive age with limited knowledge and negative attitudes are more likely to engage in negative behaviors when seeking reproductive health services. According to the study, a lack of information, expertise, and easy access to reproductive health services and facilities increases risky attitudes and behaviors, such as unintended pregnancy, abortion, infectious infections, and other reproductive health problems<sup>22,23</sup>.

Social support is another element connected with the behavior of women of reproductive age in need of reproductive health services. The results showed that social support had a  $p = 0.001$  and  $PR = 5.451$ , indicating that women of reproductive age who receive low social support are 5.4 times more likely to engage in negative behavior when needing reproductive health services. Other research has found that social support has an impact on health behavior<sup>24,25</sup>. Low social support will have an impact on health decisions, especially reproductive health. Social support will spread faster in homogeneous community groupings where the proper or erroneous opinions/suggestions/support of others might impact health decision-making<sup>26</sup>.

The findings of this study show that tradition influences decision-making. The most dominant variable is tradition, with an Exp(B) value of 192.422, indicating that tradition influences the behavior of women of reproductive age 192 times when it comes to the need for reproductive health services. Several experts argue that the tradition aspect stems from the values and traditions that are ingrained in a community to govern persons to understand their function and behavior when dealing with other people<sup>27</sup>. Traditions and beliefs influence women's decision-making patterns in rural Tanzania to prevent access to health services<sup>28,29</sup>. The subordinate status of women influenced by traditions and beliefs is key to the sexual health and reproductive services received<sup>30</sup>.

The existence of traditions in the Talang Mamak tribe causes women to prefer childbirth assisted by non-health workers or Traditional birth attendants (TBAs) 56.8% so the mortality rate and delivery complications are high in this indigenous area. In Morocco, the persistence of the tradition of childbirth assisted by non-health workers including TBAs is a concern for the urgency of reproductive health services for women, especially at-risk groups<sup>31</sup>. Traditional backgrounds also influence individual beliefs, values, and habits, including health perspectives. Some of these customs are still considered "primitive and do not care about health"<sup>32</sup>. In addition, women who do not utilize reproductive health services due to a lack of knowledge, awareness, and fear of the examination and treatment they get in health services<sup>33</sup>.

## Conclusion

Education, knowledge, attitude, tradition, and social support are associated with the behavioral needing reproductive health services in women of reproductive age. According to the final equation, three independent variables affect the behavioral needing reproductive health services in women of reproductive age, namely: tradition, knowledge, and education. Tradition is the most influential variable, with an  $\text{Exp}(\beta)$  value of 192.422, meaning good traditions are 192.422 times more likely for women of reproductive age to behave in a need for reproductive health services than poor traditions. Good traditions, good knowledge, and higher education have more behavioral probability of needing reproductive health services in women of reproductive age 99%, while another 1% probability by other variables is not examined in this study.

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