

The relationship of accessibility, ownership of health security, and family support with the behavior of III trimester pregnant women in choosing a delivery help

Rini Rinda Mayanti^{1*}, Ane Lisdayani¹, Noor Hasanah¹, Emalia Susilawati¹, Lusi Ginanjar Rahayu¹, Lia Novitasari¹, Fanni Hanifah¹, Hidayani¹

¹Midwifery Study Program, Applied Undergraduate Program, Advanced University of Indonesia, Indonesia

*Correspondence: Rini Rinda Mayanti, Midwifery Study Program, Applied Undergraduate Program, Advanced University of Indonesia, Indonesia. email: rindamayantirini@gmail.com

Received: 08 August 2024 ◦ Revised: 10 September 2024 ◦ Accepted: 01 December 2024

ABSTRACT

Introduction: One of the aspects that causes the high MMR in Indonesia and in several regions is that the coverage of assistance by health workers is still low. The reason why people decide to give birth to non-health workers (quacks) is because of the low level of education in society, culture, and the economy. Factors that influence the choice of birth attendants include areas where coverage is still not close to health facilities, ownership of health insurance, and family support, which is still the predominant reason mothers do not choose birth attendants by professionals in health facilities.

Objective: The general aim of this research is to understand the relationship between accessibility and ownership. Health insurance and family support with the behavior of TMT III pregnant women in choosing birth attendants.

Methods: This research method is quantitative research with a cross-sectional design. Result: The chi-square test results show a relationship between accessibility, ownership of health insurance, family support, and the behavior of TMT III pregnant women in choosing birth attendants.

Result: The chi-square test results show a relationship between accessibility, ownership of health insurance, family support, and the behavior of TMT III pregnant women in choosing birth attendants.

Conclusion: It is hoped that this can increase the role of the community in helping all mothers who are about to give birth to choose professional health workers to assist them in giving birth so that it is hoped that all mothers in labor can be assisted in giving birth through a safe delivery process so that the mother and baby are healthy and safe.

Keywords: accessibility, family support, ownership of health insurance.



INTRODUCTION

Pregnancy and childbirth are critical events in a woman's life cycle that require special attention. Safe childbirth is one of the keys to reducing maternal and infant mortality. According to data from the WHO (World Health Organization, 2023), the global maternal mortality rate is still at 211 deaths per 100,000 live births. In Indonesia itself, based on the Indonesian Demographic and Health Survey (SDKI, 2022), the maternal mortality rate still reaches 305 deaths per 100,000 live births, which is far from the target set in the Sustainable Development Goals (SDGs) of 70 deaths per 100,000 live births by 2030. One of the factors that is very influential in reducing the risk of maternal death is the selection of competent health workers and adequate facilities during childbirth. The selection of childbirth assistance by pregnant women, especially in the third trimester, is crucial because this phase is the final period of pregnancy, where preparation for childbirth is the top priority (Adedokun *et al.*, 2024). However, the behavior of pregnant women in choosing a place or delivery assistance does not always lead to safe choices, such as health professionals or complete health facilities. Various factors that play a role in this decision-making, including accessibility to health facilities, health insurance ownership, perceived level of health security, and family support, all have an essential role in influencing the behavior of pregnant women (Latham, Cotton, and Brumby, 2024).

Accessibility to health facilities, including distance to hospitals or health centers, quality of health services, and transportation, is one of the significant factors in pregnant women's decision to choose a place of delivery in the third trimester (Beydoun *et al.*, 2024). Pregnant women in rural and remote areas are at a higher risk of giving birth without the help of health professionals due to limited access to health facilities. This is also true in Indonesia, especially in remote areas or archipelagos, where the distance to health facilities can be very long, and inadequate transportation is a significant obstacle (Li, Peng and Peng, 2023). Difficult access can cause pregnant women to prefer to give birth at home with the help of birth shamans or families who do not have adequate health competence. It shows that 30% of pregnant women in eastern Indonesia still give birth at home without medical assistance due to difficult access to health facilities (Liu *et al.*, 2024). This problem is even more complex when poor geographical conditions or inadequate availability of emergency transportation become obstacles, especially in emergency conditions during the delivery process (Rudasingwa and Cho, 2024).

Health insurance ownership, such as BPJS (Social Security Administration) in Indonesia, also affects the behavior of pregnant women when choosing maternity assistance. This health insurance program ensures that all people, including pregnant women, can access affordable health services (Trahan, Walshe and Mehta, 2023). However, there are still challenges related to the use of this health insurance. Pregnant women with BPJS ownership are more likely to choose to give birth in health facilities compared to mothers who do not have health insurance. However, health insurance ownership does not fully guarantee positive behavior when choosing maternity assistance (Zhang, Ding and Ma, 2024). There are still pregnant women who are reluctant to use BPJS services because of their lack of understanding of the procedure for using it, fear of slow service, or stigma against government health facilities. Around 20% of pregnant women in urban areas with BPJS still choose childbirth assistance because they feel that administrative procedures in hospitals are too complicated. Family support from husbands, parents, and other family members is a very influential social factor in making decisions related to childbirth (Ayeni *et al.*, 2023). Pregnant women who receive strong support from their families, especially their husbands, are more likely to choose health facilities as the place of delivery. This support can be in the form of emotional encouragement, assistance during pregnancy checkups, or assistance in preparing for the delivery process in the hospital (Yang *et al.*, 2024).

The problems faced by pregnant women in the third trimester in choosing childbirth assistance can be summarized as follows: Limited accessibility in remote or rugged geographical areas reduces the chances of pregnant women getting adequate health services during childbirth.

Health insurance ownership, such as BPJS, has not been fully optimized, mainly due to ignorance of procedures and concerns related to service quality. Negative perceptions of the quality of services in health facilities, including fears of ill-treatment or unwanted medical interventions, encourage some pregnant women to choose home delivery. Lack of family support or influence by tradition can cause pregnant women to choose a less safe birth compared to health professionals. Thus, the relationship between accessibility, health insurance ownership, health security, and family support dramatically influences the behaviour of pregnant women in the third trimester in choosing childbirth assistance. To ensure that pregnant women receive safe and quality delivery services, it is essential to carry out community-based interventions, such as improving health education, optimizing health insurance services, and increasing trust in health facilities. This approach will reduce maternal mortality rates and improve maternal and child well-being in the future. This study aims to understand the relationship between accessibility and ownership, health insurance, and family support with the behaviour of TMT III pregnant women in choosing a birth companion.

RESEARCH METHODOLOGY

This research uses quantitative research methods with a descriptive-analytical approach cross-sectional. This research aims to determine the relationship between accessibility and collateral ownership health. The research will be carried out in 2023 from October – November 2023. The population of this study is TMT III pregnant women who visit the UPTD Community Health Center Cibeber, Cianjur Regency, as many as 230 people. Using an accidental sampling technique, samples were taken using formula calculations, Slovin, totaling 70 pregnant women. Data was collected using a questionnaire, the answers of which were collected from respondents, and data processing and analysis were carried out. The data analysis was carried out as a univariate analysis, which looked at the frequency distribution and bivariate analysis using the chi-square test.

RESULTS

Table 1. Description of Behavior of Pregnant Women TMT III, Accessibility, Health Insurance, Family Support in Choosing a Birth Companion

Behaviour Pregnant	amount	presentation
Health workers	54	77,1
Paraji	16	22,9
Accessibility		
Reachable	47	67,1
hard to reach	23	32,9
Health Insurance		
Own	44	62,9
Don't Have	26	37,1
Support		
Support	32	45,7
Don't Support	38	54,3

Based on the table above, it can be seen that most pregnant women choose helpers, 54 of whom are delivered by health workers (77.1%). It can be seen that more than half of pregnant women are TMT III 47 people (67.1%) have easy access to health facilities. It can be seen that more than half of TMT pregnant women do not receive family support, as many as 38 people (54.3%).

Table 2. Relationship of accessibility, health insurance ownership, family support and TMT III behavior of pregnant women in choosing a delivery assistant

Accessibility	the behaviour of pregnant women				Amount	p-value
	Health workers		Paraji			
Reachable	41	87,2	6	12,8	47	0,004
Hard To Reach	13	56,5	10	45,3	23	
Amount	54	77,1	16	22,9	70	
Health Insurance						
Own	43	97,7	1	2,34	44	0,000
Don't Have	11	42,3	15	57,7	26	
Amount	54	77,1	16	22,9	70	
Support						
Support	29	90,6	3	9,4	32	0,000
Don't Support	25	65,8	13	34,2	38	
Amount	54	77,1	16	22,9	70	

Based on table 2. It can be seen that the majority of pregnant women have TMT, accessibility is easy to reach, and choose health workers to help with childbirth as much as possible 41 people (87.2%). The chi-squared test results showed a significant relationship with the value of $p = 0.004 < 0.05$. Thus, H_0 was rejected, which means that there was a relationship between accessibility and the behaviour of TMT III pregnant women in choosing a birth partner. The analyst's results also obtained an OR value of 5.3, which means that pregnant women have easy accessibility and are 5.2 times more likely to choose health workers as auxiliary workers.

Most pregnant women who are TMT III have health insurance and choose birth assistance from as many health workers as possible, 43 people (97.7%). The chi-squared test results showed a significant relationship with the value of $p = 0.000 < 0.05$. Thus, H_0 was rejected, which means that there is a relationship between health insurance ownership and the behaviour of TMT III pregnant women in choosing a birth attendant. The analysis results also obtained an OR value of 58.6, meaning respondents have health insurance 58.6 times the chance of selecting health workers as helpers. Most pregnant women received family support and chose birth companions from health workers, as many as 29 people (90.6%). The chi-squared test results showed a significant relationship with the value of $p = 0.014 < 0.05$. Thus, H_0 was rejected, which means that there was a relationship between family support and the behaviour of TMT III pregnant women in choosing a biological partner. The analysis results also obtained an OR value of 5, meaning respondents received five family support times the opportunity to select a health worker as a birth companion. Based on the results of the analysis, it can be concluded that there is a significant relationship between accessibility, health insurance ownership, and family support in the behavior of pregnant women in the third trimester when choosing health workers as delivery companions.

DISCUSSION

The findings of this study show that accessibility, health insurance ownership, and family support significantly influence pregnant women's decisions in choosing safe and quality childbirth assistance. The following is a more detailed discussion of each factor based on the latest research and literature findings. Poor access to health facilities, especially in remote and rural areas, is a significant barrier to accessing safe childbirth services. In difficult geographical conditions, such as in mountainous or archipelago areas, limited transportation often makes pregnant women

choose to give birth at home or use non-professional labor such as birth attendants. Accessibility, health insurance ownership, and family support are essential in pregnant women choosing health workers as birth companions in the third trimester. Improvements in access to health facilities, utilization of health insurance, and increased family support can significantly improve maternal and infant safety during the delivery process (Oikawa, Murakami and Ochi, [2024](#)).

Pregnant women in rural areas still face difficulties in reaching health facilities. Interventions involving improving health infrastructure, providing emergency transportation, and strengthening primary health services are urgently needed to address these challenges (Zhang, Middlemiss and Philips, [2023](#)). Distance to health facilities and transportation difficulties are significant barriers for pregnant women to get proper care during childbirth, especially in developing countries (Belete and Walle, [2023](#)). Poor accessibility increases the likelihood of giving birth without adequate medical assistance, thereby increasing the risk of maternal and infant mortality (Yanquiling, [2024](#)). Women living in rural or remote areas often face significant access constraints, which directly impact their decision to give birth at home with the help of traditional shamans despite the availability of formal health facilities (Mulyasari *et al.*, [2023](#)). The study emphasizes the importance of interventions that focus on improving transport infrastructure and the availability of health facilities, especially in remote areas (Wojczewski, Grohma and Kutalek, [2023](#)).

Ownership of universal health insurance such as BPJS in Indonesia dramatically increases access to safe childbirth services, significantly reducing the risk of maternal and infant mortality. Health insurance helps overcome financial barriers that are often the main reason pregnant women do not get medical services during childbirth (Jerumeh, [2024](#)). Despite increasing insurance ownership, service utilization is still low in some areas. This is due to public misunderstanding regarding the procedure for using BPJS and concerns about the quality of services at health facilities that accept BPJS (Chan, Lee and Teh, [2023](#)). Therefore, more effective socialization about the use of BPJS and improving the quality of services in health facilities in collaboration with BPJS is crucial to maximizing the benefits of this health insurance—the positive impact of the health insurance program on improving access to health services (Kong *et al.*, [2024](#)). Similar to BPJS in Indonesia, the health insurance program has been shown to increase the number of pregnant women who choose to give birth in health facilities rather than at home, as costs that were previously a significant constraint are now covered by insurance. Implementing health insurance in Vietnam reduces inequality in access to reproductive health services. The study concluded that health insurance provides more affordable access and increases pregnant women's options for safer medical care (Islam *et al.*, [2024](#)). Although many pregnant women have BPJS, there are still challenges in using the services, such as a lack of understanding of BPJS procedures and the perception that the services provided by BPJS are often slower or of poor quality. Therefore, increasing socialization and improving the quality of services in health facilities affiliated with BPJS is necessary to encourage broader utilization (Gao and Li, [2024](#)).

Family support that provides emotional and material support to pregnant women tends to encourage giving birth in a safe health facility (Limbong, [2021](#)). In many cases, husbands and extended family play a significant role in granting permission or supporting a pregnant woman's choices, especially in the context of specific cultures in Indonesia, where senior family members often make decision-making. However, family support is not always positive (Wang, Qi, and Li, [2024](#)). In some communities, especially in rural areas with strong traditions, families may encourage pregnant women to give birth at home or with the help of birth quacks (Setyawati *et al.*, [2024](#)). Families still maintain the tradition of giving birth at home even though access to health facilities is available. Therefore, educating families about the importance of childbirth in safe health facilities and with trained medical personnel is very important. Strong social support, especially from partners, significantly increases the likelihood that women will choose a health facility as a place to give birth (Amfo *et al.*, [2023](#)). This support can be in the form of emotional encouragement, assistance with prenatal checkups, or material assistance such as transportation

costs and logistical preparations for delivery. Family traditions and norms are still strong in influencing women's decisions to give birth at home with the help of birth shamans, despite the availability of health facilities (Maket, 2024). Better family support, which focuses on maternal and infant safety and health, can encourage safer options in the labor process (Wassie, Mengistu, and Birlie, 2023).

CONCLUSION

It can be concluded that accessibility, health insurance ownership, and family support have a significant relationship with the behaviour of pregnant women in the third trimester in choosing health workers as birth companions. By improving accessibility, maximizing health insurance benefits, and increasing family support, an increase in the selection of safe childbirth assistance can be achieved, ultimately positively impacting maternal and infant mortality rates in Indonesia and emphasizing the importance of improving the accessibility of health facilities, maximizing the use of health insurance, and providing education to families to encourage positive behaviour of pregnant women in choosing childbirth assistance. These efforts will contribute to improving maternal and infant safety, as well as reducing maternal and infant mortality rates in Indonesia.

Conflicts of Interest

The authors declare no conflict of interest.

REFERENCE

- Adedokun, O. *et al.* (2024) 'Investigating factors underlying why householders remain in at-risk areas during bushfire disaster in Australia,' *Heliyon*, 10(8), p. e29727. doi: <https://doi.org/10.1016/j.heliyon.2024.e29727>.
- Amfo, B. *et al.* (2023) 'Linkage between working conditions and wellbeing: Insight from migrant and native farmhands on Ghana's cocoa farms,' *Heliyon*, 9(2), p. e13383. doi: <https://doi.org/10.1016/j.heliyon.2023.e13383>.
- Ayeni, M. D. *et al.* (2023) 'Effects of rabbit production on income and livelihood of rural households in Nigeria,' *Heliyon*, 9(8), p. e18568. doi: <https://doi.org/10.1016/j.heliyon.2023.e18568>.
- Belete, G. T. and Walle, Y. (2023) 'Willingness to pay for medical care and its determinants in private health care facilities among Gondar city residents, Northwest Ethiopia: Cross sectional study', *Heliyon*, 9(11), p. e21143. doi: <https://doi.org/10.1016/j.heliyon.2023.e21143>.
- Beydoun, H. A. *et al.* (2024) 'Pulmonary artery catheter receipt among cardiac surgery patients from the national inpatient sample (1999–2019): Prevalence, predictors and hospitalization charges', *Heliyon*, 10(3), p. e24902. doi: <https://doi.org/10.1016/j.heliyon.2024.e24902>.
- Chan, D. Y. L., Lee, S. W. H. and Teh, P.-L. (2023) 'Factors influencing technology use among low-income older adults: A systematic review', *Heliyon*, 9(9), p. e20111. doi: <https://doi.org/10.1016/j.heliyon.2023.e20111>.
- Gao, X. and Li, J. (2024) 'The nexus between internet use and consumption diversity of rural household', *Heliyon*, 10(15), p. e35433. doi: <https://doi.org/10.1016/j.heliyon.2024.e35433>.
- Islam, M. M. *et al.* (2024) 'Social sustainability in Bangladesh marine fisheries management: A case from Hatiya fishing community', *Heliyon*, 10(14), p. e34124. doi: <https://doi.org/10.1016/j.heliyon.2024.e34124>.
- Jerumeh, T. R. (2024) 'Incidence, intensity and drivers of multidimensional poverty among rural women in Nigeria', *Heliyon*, 10(3), p. e25147. doi: <https://doi.org/10.1016/j.heliyon.2024.e25147>.

- Kong, Y. *et al.* (2024) ‘Resolving conflict and promoting coordination for an integrated old-age healthcare service system in China: GMCR-AHP based decision analysis approach’, *Heliyon*, 10(13), p. e33470. doi: <https://doi.org/10.1016/j.heliyon.2024.e33470>.
- Latham, A., Cotton, J. and Brumby, S. (2024) ‘A rapid review of leading indicators to measure Australian farm safety culture’, *Heliyon*, 10(12), p. e32736. doi: [10.1016/j.heliyon.2024.e32736](https://doi.org/10.1016/j.heliyon.2024.e32736).
- Li, X., Peng, X. and Peng, Y. (2023) ‘Unravelling the influence and mechanism of agricultural inputs on rural poverty vulnerability: Evidence from China’, *Heliyon*, 9(12), p. e22851. doi: <https://doi.org/10.1016/j.heliyon.2023.e22851>.
- Limbong, T. (2021) ‘Faktor Pendukung dan Penghambat Peran Pendampingan Suami Terhadap Isteri Pada Masa Kehamilan dan Persalinan’, *Jurnal Ilmiah Kesehatan Sandi Husada*, 10(2), pp. 475–483. doi: [10.35816/jiskh.v10i2.635](https://doi.org/10.35816/jiskh.v10i2.635).
- Liu, J. *et al.* (2024) ‘Digital financial inclusion and household financial vulnerability: An empirical analysis of rural and urban disparities in China’, *Heliyon*, 10(15), p. e35540. doi: <https://doi.org/10.1016/j.heliyon.2024.e35540>.
- Maket, I. (2024) ‘Analysis of incidence, intensity, and gender perspective of multidimensional urban poverty in Kenya’, *Heliyon*, 10(9), p. e30139. doi: <https://doi.org/10.1016/j.heliyon.2024.e30139>.
- Mulyasari, G. *et al.* (2023) ‘Social-life cycle assessment of oil palm plantation smallholders in Bengkulu province, Indonesia’, *Heliyon*, 9(8), p. e19123. doi: <https://doi.org/10.1016/j.heliyon.2023.e19123>.
- Oikawa, K., Murakami, M. and Ochi, S. (2024) ‘Use of personal health records during and after a disaster including a nuclear accident: A scoping review’, *International Journal of Disaster Risk Reduction*, 111, p. 104698. doi: <https://doi.org/10.1016/j.ijdr.2024.104698>.
- Rudasingwa, G. and Cho, S. (2024) ‘Malaria prevalence and associated population and ecological risk factors among women and children under 5 years in Rwanda’, *Heliyon*, 10(14), p. e34574. doi: <https://doi.org/10.1016/j.heliyon.2024.e34574>.
- Setyawati, A. *et al.* (2024) ‘Overview of mom’s confidence when planning to return low birth weight baby from the hospital’, *Jurnal Ilmiah Kesehatan Sandi Husada*, 13(1), pp. 69–75. doi: [10.35816/jiskh.v13i1.1174](https://doi.org/10.35816/jiskh.v13i1.1174).
- Trahan, A., Walshe, R. and Mehta, V. (2023) ‘Extreme heat, gender, and access to preparedness measures: An analysis of the heatwave early warning system in Ahmedabad, India’, *International Journal of Disaster Risk Reduction*, 99, p. 104080. doi: <https://doi.org/10.1016/j.ijdr.2023.104080>.
- Wang, Y., Qi, Y. and Li, Y. (2024) ‘How does digital inclusive finance influence non-agricultural employment among the rural labor force? —Evidence from micro-data in China’, *Heliyon*, 10(13), p. e33717. doi: <https://doi.org/10.1016/j.heliyon.2024.e33717>.
- Wassie, S. B., Mengistu, D. A. and Birlie, A. B. (2023) ‘Agricultural livelihood resilience in the face of recurring droughts: Empirical evidence from northeast Ethiopia’, *Heliyon*, 9(6), p. e16422. doi: <https://doi.org/10.1016/j.heliyon.2023.e16422>.
- Wojczewski, S., Grohma, P. and Kutalek, R. (2023) ‘Risk communication and community engagement with vulnerable groups: Perceptions of social-services CSOs during Covid-19’, *International Journal of Disaster Risk Reduction*, 94, p. 103817. doi: <https://doi.org/10.1016/j.ijdr.2023.103817>.
- Yang, C. *et al.* (2024) ‘The impact of social capital on rural residents’ income and its mechanism analysis —Based on the intermediary effect test of non-agricultural employment’, *Heliyon*, 10(14), p. e34228. doi: <https://doi.org/10.1016/j.heliyon.2024.e34228>.
- Yanquiling, R. S. (2024) ‘Predictors of risk reduction behavior: Evidence in last-mile

communities’, *International Journal of Disaster Risk Reduction*, 113, p. 104875. doi: <https://doi.org/10.1016/j.ijdr.2024.104875>.

Zhang, J., Ding, T. and Ma, L. (2024) ‘Identification and prediction of the degree of multidimensional returning to poverty risk for the household in China through the novel hybrid model: Based on the survey data of China Family Panel Studies (CFPS)’, *Heliyon*, p. e38783. doi: <https://doi.org/10.1016/j.heliyon.2024.e38783>.

Zhang, L., Middlemiss, L. and Philips, I. (2023) ‘Who is vulnerable to energy poverty in China?’, *Heliyon*, 9(6), p. e16585. doi: <https://doi.org/10.1016/j.heliyon.2023.e16585>.

How to cite this article: Mayanti, R., Lisdayani, A., Hasanah, N., Susilawati, E., Rahayu, L., Novitasari, L., Hanifah, F. and Hidayani, H. (2024) “The The relationship of accessibility, ownership of health security and family support with the behavior of III trimester pregnant women in choosing a delivery help”, *Jurnal Ilmiah Kesehatan Sandi Husada*, 13(2), pp. 183-190. doi: [10.35816/jiskh.v13i2.1190](https://doi.org/10.35816/jiskh.v13i2.1190).