Correlation of education factors and knowledge in choosing places to give birth in the work area of the Rokan IV Koto I health center

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Abstract. The purpose of this study is to determine the factors influencing pregnant women's delivery place preferences. The study emphasizes the significance of choosing safe delivery options, as required by the Indonesian government, and making sure mothers give birth in medical facilities that have enough resources and qualified staff, especially in case of emergencies. Inappropriate clinic or assistant selection by family members may put the health of the mother and the newborn at risk. An observational approach was used in a cross-sectional design. Written questionnaires were used to gather primary data, and the chi-square test was used for analysis. The study's population consisted of all pregnant women at Rokan IV Koto Health Care Center, including 80 women who gave birth in 2022. Knowledge (p=0.000) and education (p=0.002) were found to be positively correlated with the likelihood of selecting an appropriate delivery facility. Support from family members, however, did not significantly correlate. These findings highlight how knowledge and education affect decisions about safe birthing. Healthcare facilities should step up efforts to spread knowledge and raise awareness about the value of giving birth in well-equipped facilities with trained medical personnel in order to guarantee that all pregnant mothers have access to safe delivery services. The community's maternal and newborn health outcomes could be greatly enhanced by this strategy.

1 Introduction

A woman's pregnancy and delivery are two of the most important times in her life. The experience of being pregnant and giving birth is unique to each woman. A healthy pregnancy and childbirth are influenced by a safe and comfortable environment and space for the mother to deliver [1]. The preparation on the safety childbirth is an issue that affects the mental health of biological mothers. Family involvement in choosing an inappropriate maternity clinic or delivery assistant can impact both the mother's and child's health. The best facilities

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are those equipped with healthcare supplies and professionals ready to assist in the event of delivery complications requiring emergency care [2].

Women who have previously given birth can access emergency obstetric and neonatal services. However, women who deliver in unhealthy hospitals are at a higher risk of maternal illness due to delays, such as recognizing alarming symptoms, delayed decision-making, and late arrival at the hospital. Choosing an appropriate place for childbirth reduces risks and problems for both mother and baby [3]. Pregnant women are considered a vulnerable group among the urban poor. Access to housing for poor women in urban areas is hindered by limited financial resources. This study examines the variables associated with the location of birthing for expectant mothers in Indonesian urban impoverished neighborhoods [4].

The Safety Plan is to motivate expectant mothers and their families to create and maintain a safe environment, based on the Indonesian Ministry of Health, aligned with Indonesia's healthcare and welfare services, with the assistance of staff [5]. Meanwhile, according to [1], the limited access of women, particularly for childbirth, is brought on by unemployment and an absence of information and education, and public health issue analysis is considered the most appropriate way to address these problems through behavior rather than pressure (coercion) [6].

According to a survey, 54.4% of women gave birth in a medical facility in one Indonesian district. Important factors influencing home-based maternity care include access to healthcare, attitudes about healthcare providers, and knowledge of pregnancy hazards. [7]. Hospital births are more common among urban-dwelling, affluent, and health-conscious women than among people who do not. Other key factors influencing reproductive healthcare services include place of residence, education level, income, insurance, perceived pregnancy risk, and whether they received ANC (Antenatal Care) [8]. There is a significant disparity in the percentage of health facility support across Indonesia, with Maluku having the lowest rate in the country, while DKI Jakarta Province reached the highest level of service provision [17,18]. According to research conducted in Bangladesh, 20% of deliveries were assisted by midwives, while one every five women delivered birth at home. Additionally, Indonesian researchers found that in contrast to women from non-poor areas, women from impoverished areas used more services from the City Health Care Project [19]. Like in India, maternal mortality is more important than a family's socioeconomic situation. This indicates that in certain nations, the government has lowered the cost barriers to accessing healthcare for mothers [20].

The findings of the study demonstrated that factors such as place of birth, occupation, income, education level, family support, and healthy employment all had an impact on the choice of maternity care sites. But the family's economic level is the most crucial element [9]. Two settlements, Tanjung Medan Village (11 people) and Pemanding Village (seven people), continued to lack hospital deliveries in 2022, according to statistics provided by the Rokan IV Koto Public Health Center. The purpose of this investigation is to determine the variables that affect the Rokan IV Koto I Health Care Center's operating area delivery location selection.

2 Method

This kind of study uses quantitative analysis and survey design correlation. The biological women who gave delivery at Puskesmas Rokan IV Koto I were the subjects of this study. Cross-sectional research was employed, which involves looking at data from populations or samples just once at a time [1].

The participants of this research were mothers giving birth from 2022 there were 80 people in the Working Area of the Puskesmas Rokan IV Koto I Health [2]. This study used

a simple random sampling technique, namely the technique of taking a portion of the population into a simple random sample [3].

3 Result

The study's findings came from 80 participants who started their investigation between March and May of 2023. to ascertain the elements that affect the choice of birthing location during Puskesmas Rokan IV Koto I. The following are the study's findings [4].

Table 1. Correlation between educational factors and the choice of place to give birth in the working area of the Puskesmas Rokan IV Koto I (n=80)

Variable	Maternity Place				Total		*OR*	*P value*
	Medical Facility		Non-Medical Facility					
	n	%	n	%	N	%		
High level education	36	87,8	5	12,2	41	100	6,171	0,002
Low level education	21	53,8	18	46,2	39	100		

According to the above table, 36 moms with high levels of education (87.8%) gave birth in medical facilities, while the fewest mothers with high levels of education gave birth outside of medical facilities. A substantial link between schooling and the choice of delivery location is indicated by the statistical test findings, which yielded a value of p = 0.002. According to the analysis's findings, pregnant women with low levels of education are 6.171 times more likely than moms with high levels of education to give birth outside of medical facilities.

Table 2. Correlation between knowledge and decision making where to give birth in the Puskesmas Rokan IV Koto I(n=80)

Variable	Maternity Place				Total		*OR*	*P value*
	Medical Facility		Non Medical Facility					
Knowledge	n	%	n	%	n	%	7,933	0,000
Good	42	87,5	6	12,5	48	100		
Less	15	46,9	17	53,1	32	100		

Based on the data above, the majority of well-informed mothers gave birth in hospitals, accounting for 42 individuals (87.5%), while mothers with lower levels of education gave birth in healthy conditions in unskilled facilities, totaling 6 individuals (12.5%). A p-value of 0.000 from statistical analysis showed a substantial correlation between the option of delivery provider and knowledge about healthcare facilities. According to the results of the odds ratio (OR) research, pregnant women with little information are 7.933 time more likely than those with more knowledge to give birth in subpar medical facilities.

4 Discussion

4.1 The relationship between education and the decision to choose a place of birth at Puskesmas Rokan IV Koto I (n=80)

Table 4.2 indicates that 36 women, or 87.8% of the highly educated mothers, gave birth in hospitals, while about 5 women, or 12.2% of the moms with the lowest levels of education, gave birth in unsanitary settings. A p-value of 0.002 was obtained from the test findings, suggesting a positive correlation among education and the choice of delivery location. The analysis result of OR = 6.171 implies that pregnant women with lower education have a 6.171 times greater likelihood of delivering in poor health facilities compared to those with higher education.

The higher the education level, the greater the tendency to choose private delivery services, although there are still respondents with higher education who opt for public services, possibly due to lower income levels. Maternal education is associated with the utilization of health services, as education is linked to women's health knowledge [12]. A common barrier to the use of these services is the lack of knowledge and awareness among mothers about health issues [13].

In addition to household factors, this study found seven variables positively related to the selection of delivery location. Dwelling type, gender, level of education, wealth, equity, medical coverage, and childcare are these seven factors. The study's conclusion is that, in Indonesia, residency significantly affects the delivery location selection [5].

Age, education, location closeness, and the husband or wife's choice weren't discovered to be major factors in pregnant women's choice of birthing location. To encourage women's income savings, the government must address the significance of enhancing maternity facilities, increasing awareness about pregnancy, and the role of religious leaders [14].

Parental education level is a significant predictor of freedom to choose a birth location among women in India. Compared to cash incentives for home deliveries, improving parental In India, education might be a more effective means of achieving sustainable and long-term births [15]. We conclude that despite the high support for 'alternative' births, this belief limits women's decision-making, and effective birth planning practices in non-hospital facilities operating in remote parishes are constrained. We contend that the rise in hospital births can be explained by a confluence of social and cultural factors, and fertility in other regions must be embedded in cultural and practical changes for this transformation to occur [16].

Education is closely related to career prospects. The Results and Discussion section includes a general interpretation and analysis of the research findings and is connected with previously published materials and findings. Repeating research methods and results, as well as the presentation of previously published work, should be avoided.

4.2 The relationship between knowledge and women's decision-making in the working area of the Puskesmas Rokan IV Koto I (n=80)

According to the study's findings, 42 women, or 87.5% of moms with good knowledge, gave birth in hospitals, whereas 6 women, or 12.5% of moms with higher education, gave birth in unhealthful conditions. There is a substantial correlation among knowledge and the delivery location chosen at the health facility, as indicated by the test results' p-value of 0.000. Pregnant women with little understanding are 7.933 times more likely than those with strong knowledge to give birth in subpar medical facilities, according to the study result of OR = 6.171.

One's behavior or character are greatly influenced by their level of knowledge. Knowledge-based behavior typically lasts longer than ignorance-based behavior. To change

a group of people's attitude and behavior, knowledge is crucial. Familiarity with all aspects of childbirth can assist mothers and families in deciding on a place of delivery, as there is a lack of awareness about certain information [17]. Knowledge is one of the factors that can determine decisions. It is the result of human sensory input, including sight, smell, hearing, and more.

This study concludes that 10 variables are associated with pregnancy in urban poor women in Indonesia: age, education, occupation, marriage, relationships, insurance ownership, reproductive knowledge, ANC, health autonomy, and family financial management [19].

Pregnancy and childbirth knowledge was examined. The design and subject matter of educational initiatives targeted at enhancing decision-making in childcare assistance practices can be informed by a deeper comprehension of women's tastes and attitudes [20].

Although women may not have as many options as they once had, midwives do not always provide them with helpful information about where to give birth. Women may express their preferences early in pregnancy, but decisions about the place of birth are often delayed until they are encouraged to consider options and discuss them with their partners [21].

Knowledge can be gained from information, experience (whether one's own or others'), beliefs, culture, and traditions. Some knowledgeable mothers who did not benefit from childbirth services expressed a desire to seek care at Puscadis or Pusquis.

5 Conclusions

Women's Decision-Making in the Rokan IV Koto I Health Center's Working Area and Education: A statistical analysis revealed a significant association between women's decision-making and education, with a p-value of 0.002. The relationship between women's decision-making and knowledge at the Rokan IV Koto I Health Center's working area: The test results revealed a substantial correlation between knowledge and the choice of a hospital for the delivery site, with a p-value of 0.000.

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