Does Husband's Education Level Matter to Antenatal Care Visits? A Study on Poor Households in Indonesia

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Abstract

Background: Involvement in antenatal care (ANC) is one of the husband's responsibilities for his wife's health. **Objective:** This study analyzed the contribution of the husband's education level to his involvement in ANC visits among poor households. **Methods:** The study employed secondary data from the 2017 Indonesian Demographic and Health Survey. The study analyzed 6429 respondents. The analysis units were poor women aged 15–49 years, had a husband, and had ever been pregnant for the past 5 years. Besides husband's education, other independent variables analyzed were residence, husband's age and occupation, and wife's parity. The analysis used a binary logistic regression test in the final step. **Results:** Husbands with a primary education record were 1.381 times more likely to participate in ANC visits than those without education. Husbands who had secondary education were 2.339 times more likely to get involved in ANC visits than those without education records. Moreover, husbands who had higher education were 3.376 times more likely to be engaged in ANC visits than those without education records. **Conclusions:** The study concludes that better education levels will be more likely to motivate husbands to get involved in ANC visits.

Keywords: Antenatal care, education context, husband's involvement, maternal health, public health

INTRODUCTION

Maternal and neonatal mortalities are indicators of health marked by access to and quality of antenatal care (ANC) services in a specific area. The hands become the focus of sustainable development goals (SDGs). Data from the WHO in 2017 showed that the maternal mortality rate (MMR) in South-Eastern Asia reached 137/100,000 live births. Indonesia had the second-highest MMR in ASEAN after Laos in 2017, with an estimated number of 305 maternal mortalities per 100,000 live births.[1] Meanwhile, the number of infant mortalities in 2018 was 13 per 1000 live births.[2] The number is still far from the target of the MDGs, amounting to 102 deaths per 100,000 live births, and of the SDGs, amounting to 70 deaths per 100,000 live births.

Several programs in reducing maternal and infant mortality rates (IMRs) have been implemented in Indonesia. One of them was the Safe Motherhood Program or Mother's Love Movement in 1990. Then, in the following decade, the government implemented the strategy creation for safer pregnancy program. Another implemented program was the expanding maternal and neonatal survival program in 2012. The program aims to improve the quality of obstetric and neonatal emergency services. However, all of these efforts have not reduced maternal and IMRs.[3]

In Indonesia, several pregnant women use partial ANC services at least four times during pregnancy. The Indonesian ministry of health recorded that 77.0% of pregnant women had ≥ four times ANC visits in 2017. However, the number then fell to 74.2% in 2018. The coverage of the fourth ANC visit was also falling short to 76.0% in 2017.[4]

The Indonesian Ministry of Health alleged the remaining high MMR and IMR in Indonesia are caused by the low ANC visits coverage. One of the local factors driving the conditions is the

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Access this article online

Quick Response Code:

Website:
www.ijcm.org.in

DOI:
10.4103/ijcm.ijcm_981_21

solid patriarchal culture. Patriarchal culture places women as subordinate subjects in social status, and thus, they have a weaker bargaining position in making decisions about domestic needs than husbands/spouses. A solid patriarchal culture makes a husband a critical figure to support his wife to access maternal and child health services in developing countries and meet the wife's economic needs.[5]

The husband's dominant role as a decision-maker is essential to save mothers in critical condition during pregnancy and childbirth. Most husbands have minimal knowledge regarding maternal health during pregnancy and birth and seem to underestimate necessary antenatal requirements, especially when the family's economic conditions are weak. If husbands have not balanced the social construct with an adequate level of education and knowledge, it will affect the quality of their decision-making.[5,6]

Looking into the significant role of husbands in preventing maternal and infant mortalities, the Indonesian government in 2000 launched the Alert Husband or "*Suami Siaga*" program. *Siaga* is an abbreviation that means "*SIap*" or awake/alert, meaning that the husband delivers and accompanies his wife to ANC during pregnancy or childbirth. *"Antar"* or deliver means that the husband must prepare a transportation scenario to transport the mother if she has an obstetric and gynecological emergency. While "*jaGA*" means looking after the wife during pregnancy and after delivery. Unfortunately, only 86% of husbands participated in this program.[7]

The government expects husbands to know and understand ANC, emergency obstetric gynecology services, transportation access to reach referral health services, and costs for accessing services in supporting the ANC program.[8] Another study explained that husbands should know about preparing for childbirth. Moreover, the husband's high education levels also have implications for promoting ANC services.[9]

A previous study considered that husband's education levels could affect the completeness of ANC visits and economic status. Education and financial condition are interconnected. A study in India explained that poverty was a challenge in accessing maternal and child health services.[10] The level of wealth is a factor that influences the patterns of access to health services, including an institutional delivery service.[11] The higher the level of wealth, the better education and knowledge. Based on these issues, analyzing the contribution of the husband's education level to his involvement in ANC visits was carried out among the poor households in Indonesia.

Methods

The study used the data of 2017 Indonesian Demographic and Health Survey (IDHS). The IDHS conducts samples using stratification and multistage random sampling methods. In this study, the analysis units were poor childbearing age women (15–49 years.) who had a husband and had a pregnancy in the past 5 years before the interview. The study employed 6429 respondents as the samples.

The study used husband's involvement as the outcome variable. In this analysis, the husband's involvement referred to whether a husband accompanied his wife during any ANC visits or not, whereby the study recorded a "No" or "Yes" response.

This study included poor households in quintiles 1 and 2 of the family's wealth index. The wealth index was calculated based on wealth. The wealth considered was television, bicycle or car, and housing features, such as sources of drinking water, toilet facilities, and the primary building materials for the floor. The IDHS calculates the score of wealth using a principal component analysis. The national wealth quintile was compiled based on the household score for each household member and then distributed into the same five categories, which counted for 20% of the population.[12]

Husbands' education level became an exposure variable. It was determined based on the highest academic certificate earned and classified into four categories: no education, primary education, secondary, and higher education. Other analyzed variables as control variables were residence, age group, occupation of husbands, and parity.

The study performed a binary logistic regression test to analyze determinants of husbands' involvement in ANC visits at the final stage. The study conducted an analysis process using SPSS 22 (IBM, Armonk, New York, United States).

The 2017 IDHS has passed ethical clearance from the National Ethics Committee. Respondents have provided written approval for their involvement. On the other hand, the author has obtained permission for the data used for this study through the website: https://dhsprogram.com.

Results

The analysis results indicated that the proportion of husbands' involvement in ANC visits among the poor households in Indonesia was 69.0%. Based on residence and age, Table 1 shows that husbands who lived in rural areas and the 30–34-age group dominated both ANC visit categories. In addition, husbands working in agriculture were more dominant in both ANC visit categories. Besides, husbands with multiparous wives also were prevalent in both ANC visit categories.

The study results showed how husbands' involvement in ANC visits was figured among the poor households in Indonesia [Table 1]. We used the husband's involvement in ANC visits category "No" as a reference in this final analysis.

Based on the education, husbands with primary education were 1.381 times more likely to participate in ANC visits than husbands with no education (adjusted odds ratio [AOR]: 1.381; 95% confidence interval [CI]: 1.381–1.382). Husbands who graduated from secondary education had 2.339 times more chances to accompany their wives to ANC than those with no education (AOR: 2.339; 95% CI: 2.338–2.340). Moreover, husbands in higher education were 3.376 times more likely to get involved in ANC visits than those with no education (AOR:

Table 1: Husband's involvement in antenatal care visit among the poor in Indonesia (*n*=6429)

Characteristics	Husband's involved in ANC visits (*n*=4061) (%)	Bivariate analysis *(P)*
Husband's education		
No education	1.3	0.000*
Primary	41.3	
Secondary	53.5	
Higher	3.9	
Residence		
Urban	26.8	0.000*
Rural	73.2	
Husband's age		
≤19	0.6	0.000*
20-24	7.9	
25-29	20.2	
30-34	27.0	
35-39	20.8	
40-44	14.2	
≥45	9.3	
Husband's occupation		
No work	0.5	0.000*
Professional/technical, managers, and administration	4.1	
Clerical	2.4	
Sales	10.6	
Services	17.0	
Agricultural - self-employed	34.8	
Industrial worker	29.8	
Others	0.8	
Parity		
Primiparous	36.4	0.000*
Multiparous	58.6	
Grand multiparous	5.0	

*P<0.001. ANC: Antenatal care

3.376; 95% CI: 2.374–3.378). It implied that the better the husband's education was, the more likely they got involved in ANC visits.

Apart from the education level, four other variables significantly influenced the husband's involvement in ANC visits. First, the residence was known to influence the husband's involvement. Husbands in rural areas were 0.822 times less likely to accompany their wives to ANC visits than those in urban (AOR: 0.822; 95% CI: 0.821–0.822).

Second, age was another factor contributing to their participation. All age categories showed less tendency for husbands to get involved in ANC visits compared to ≤19 age category. Third, occupation determined their involvement as well. Husbands who were sales workers were 3.427 times more likely to accompany their wives to ANC than those without jobs (AOR: 23.427; 95% CI: 3.424–3.429). On the other hand, husbands who worked in the industrial field had 2.783 times

more chances to be involved in ANC visits than those unemployed (AOR: 2.783; 95% CI: 2.781–2.785). Moreover, husbands with other occupations had 2.639 times more probabilities to get involved in ANC visits than nonworking husbands (AOR: 2.639; 95% CI: 2.636–2.642).

The fourth influential factor was parity. Husbands with multiparous wives were 0.629 times less likely to participate in ANC than those with primiparous wives (AOR: 0.629; 95% CI: 0.629–0.630). Meanwhile, husbands whose wives were grand multiparous were 0.273 times less likely to accompany them to ANC than those having primiparous wives (AOR: 0.273; 95% CI: 0.273–0.274).

DISCUSSION

This discussion looked at the contribution of the husband's educational level to his involvement in ANC visits. It also addressed other independent variables such as residence, husband's age, occupation, and parity. In addition to education, the study found that the place, husband's age, work, and wife's parity significantly influence their participation in ANC visits. Husbands who had higher education were more likely to participate with their wives in ANC visits.

Husbands' awareness and responsibility as a decision-maker align with the level of education they earn. The better the husband's education, the greater the possibility of the husband's involvement in ANC visits among the poor in Indonesia. In other words, the better the level of education is, the better husbands understand the risk of undergoing pregnancy hazards and the fact that pregnancy is not only a women's business.[13,14]

Husbands in urban areas were more likely to get involved in ANC visits as they were more well-educated than those in rural. On the other hand, the availability of information in urban areas is more massive than in rural areas.[15,16] Besides, this present study showed younger husbands tended to participate in ANC visits. This finding is in line with several studies in South Ethiopia.[17]

The analysis also revealed husband's occupation determined his involvement in ANC visits. Specifically, a study in Pakistan stated that income level influenced husbands' involvement in ANC visits. Lower-income gives a lower chance for husbands to get involved in ANC visits.[17] For low-income families, husbands more prioritized seeking additional income than taking their wives to ANC. Another study conducted in Myanmar found that husbands provided financial support more than other needs. Still, they did not participate in maternity care and the need for preparing delivery.[18]

Finally, parity was another health determinant here. The finding summarized that having more children could end up in more petite husband's involvement in ANC visits. A previous study also concluded that parity determined the husband's participation in ANC visits.[18] Meanwhile, research in Tanzania reported different results. It said that husbands having grand multiparous

wives were 1.658 times more likely to attend ANC along with their wives than husbands having primiparous wives.[19]

This study was significant for maternal research since it used enormous national data as the analysis materials. However, since it did not include cultural factors as predictors of the husband's involvement in ANC visits, this became the limitation of this study. Meanwhile, a previous study suggested that cultural factors were often barriers for husbands to get involved in maternal health services. It, in turn, seems to be related to the Indonesian context where pregnancy and childbirth are often women's affairs, not men's.[20]

CONCLUSIONS

The study concluded that the husband's education level was a determinant factor of his involvement in ANC visits among poor households. Husband's better education level may result in a greater likelihood of being involved in ANC visits.

Conflicts of interest

There are no conflicts of interest.

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