ORIGINAL RESEARCH

The influence of patriarchal cultural factors on pregnancy complications (antepartum hemorrhage) at Mitra Medika General Hospital, Bandar Klippa, Indonesia

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ABSTRACT

Objective: The objective of this study was to determine the influence of patriarchal culture on the occurrence of antepartum hemorrhage at Mitra Medika General Hospital.

Materials and Methods: This study employed an analytical observational design with a case-control approach. The sample for this study included pregnant women in their third trimester and mothers who had given birth within a maximum of 4 months from the time of the study at Mitra Medika General Hospital, Bandar Klippa, Indonesia. There were 90 respondents, comprising 30 case groups and 60 control groups. The sampling method for the case group used quota sampling, while the control group utilized accidental sampling. The research instrument utilized questionnaires and secondary data (antepartum hemorrhage diagnoses). Data analysis employed the chi-square test for bivariate analysis and multiple logistic regression for multivariate analysis, with a significance level of 0.05.

Results: There was a significant relationship between decision-making (p=0.030), family support (p=0.003), psychological domestic violence (p=0.024), and sexual domestic violence (p=0.039), no relationship with physical domestic violence (p=0.257) with the occurrence of antepartum hemorrhage. Multivariate analysis revealed that the family support variable was the most dominant risk factor with an Exp (B) value of 8.230 in causing antepartum hemorrhage.

Conclusion: The patriarchal cultural factors that significantly affect antepartum hemorrhage at Mitra Medika General Hospital, Bandar Klippa, Indonesia, are decision-making, family support, psychological domestic violence, and sexual domestic violence.

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Highlights:

1. Antepartum hemorrhage stands as one of the major contributors to maternal mortality globally.
2. Patriarchal culture is among the societal factors impacting maternal mortality rates.
3. Patriarchal cultural factors associated with antepartum hemorrhage are examined to establish effective preventive measures.

INTRODUCTION

Obstetric bleeding still contributes to 50% of the estimated 500,000 maternal deaths occurring worldwide each year, making it one of the leading causes of maternal mortality in underdeveloped countries. Antepartum and postpartum hemorrhages together account for approximately 27% of unexpected maternal deaths.[1] Obstetric emergencies known as antepartum bleeding are a major cause of maternal and neonatal morbidity and mortality.[2] According to the WHO, cases of antepartum bleeding, especially placenta previa, contribute to 15% to 20% of maternal deaths.[3] On average, 0.5% to 5% of all pregnancies are complicated by antepartum bleeding with sociodemo-graphic causes.[4]

The high incidence of antepartum bleeding is not devoid of indirect causes in the form of social determinants and behavior. Discussing the cultural aspects of society will closely relate to behavior. The patriarchal culture in Indonesia, where male dominance within households is prevalent, is one of the social cultures influencing maternal mortality. Within families, the decision-making authority often rests more with men than women. Decision-making is frequently delayed, leading to late seeking of medical care, and thus not receiving timely attention during pregnancy.[5] Decision-making regarding hospital referrals for pregnant women at high risk is predominantly dominated by husbands, accounting for 86.7%. This indicates that women lack choices or rights to make decisions about their own health in order to safeguard both themselves and their babies.[6]

In addition to placing men as the ultimate decision-makers, patriarchal culture also normalizes Domestic Violence (DV). There exists a stigma in society that husbands are “allowed” to be violent towards their wives if the wives do not follow their rules and commands.[7] Domestic violence is more likely to occur during pregnancy, with nearly a third of abused women being pregnant. Previous studies have indicated that domestic violence affects the health of pregnant women between 3% to 11% in developed countries and 3% to 66% in developing countries. Therefore, domestic violence is a significant risk factor for maternal health.[8] Domestic violence, including physical, psychological, and sexual violence, can lead to antepartum bleeding.[9]

Given the issue discussed above, where patriarchal culture plays a significant role as a contributor to increased risk of antepartum bleeding, there was s a need for research on the influence of patriarchal culture on antepartum bleeding at Mitra Medika General Hospital. The selection of this location was based on the consideration that it aligns with the identified problem.

MATERIALS AND METHODS

This study employed an analytical observational design with a case-control approach. The sample for this study consisted of pregnant women in their third trimester and women who had given birth within the last four months at Mitra Medika General Hospital in Bandar Klippa, Indonesia. The study involved a total of 90 participants, divided into 30 cases and 60 controls. Sampling for the case group was conducted using quota sampling, while the control group was sampled using the accidental method. The independent variables in this study included decision-making, family support, physical intimate partner violence (IPV), psychological IPV, and sexual IPV. The dependent variable was the antepartum bleeding. Research instruments included questionnaires and secondary data (diagnoses of antepartum bleeding). The software program used to analyze the data was IBM SPSS Statistic Version 26. Data analysis involved the use of the chi-square test for bivariate analysis and multiple logistic regression for multivariate analysis, with a significance level of 0.05. This research protocol had received approval from the Research and Ethics Committee of the Politeknik Kemenkes Medan, with protocol number 01.25-140/KEPK/POLTEKKES KEMENKES MEDAN 2023.

RESULTS AND DISCUSSION

This study involved 90 respondents in total. Overall, it was found that the highest education level among case group respondents was dominated by high school, while in the control group, it was college. The employment status of the majority of respondents indicated that they were unemployed. Among respondents with employ-ment status, in the case group, most were civil servants, while in the control group, most were teachers.

From the results of the homogeneity test, the characteristics of respondents who had homogeneous data distribution were education, employment status, and type of work. So, the characteristics of the respondents did not influence the results of subsequent data analysis.

Table 1. Distribution of respondent characteristics in the research at Mitra Medika General Hospital, Bandar Klippa, Indonesia

Characteristics	Groups				F	%	95% CI	
	Casse		Control					
	f	%	f	%			Low	Upper
Education								
College	13	43.3	28	46.7	41	45.6	34.4	54.4
Senior High School	16	53.3	21	35	37	41.1	31.1	52.2
Junior High School	1	3.3	11	18.3	12	12	6.7	22.2
Employment Status								
Employment	14	46.7	26	43.3	40	44	34.4	55.6
Non-Employment	16	53.3	34	56.7	50	55.6	44.4	65.6
Type of Work								
Housewife	16	53.3	34	56.7	50	55.6	45.6	65.6
Entrepreneur	3	10	8	13.3	11	12.2	5.6	20
Merchant	3	5	4	13.3	7	7.8	3.3	14.4
Government Employee	4	13.3	5	8.3	9	10	4.4	16.7
Teacher	3	10	10	16.7	13	14.4	6.7	22.2
Total	30	100	60	100	90	100		

Table 2. Homogeneity of respondent characteristics in the research at Mitra Medika General Hospital, Bandar Klippa, Indonesia.

Characteristic	Levene Statistic	df1	df2	p-values
Education	2.591	2	87	0.081
Employment Status	0.088	1	88	0.767
Type of Work	0.385	4	85	0.819

Table 3. The relationship between patriarchal culture factors and the occurrence of antepartum bleeding at Mitra Medika General Hospital, Bandar Klippa, Indonesia

Variables	Groups				p-values	OR (95% CI)
	Case		Control			
	f	%	f	%		
Decision-making						
Husband	22	73.3	28	46.7	0.030	3.143 (1.209 – 8.167)
Wife	8	26.7	32	53.3		
Family Support						
Inadequate	11	61.1	7	17.5	0.003	7.408 (2.122 – 25.864)
Good	7	38.9	33	82.5		
Total	18	100	40	100		
Adequate	12	63.2	20	37.7	0.100	2.829 (0.956 – 8.372)
Good	7	36.8	33	62.3		
Total	19	100	53	100		
Physical Domestic Violence						
Experienced	2	6.7	1	1.7	0.257	4.214 (0.367 – 48.459)
Not Experienced	28	93.3	59	98.3		
Psychological Domestic Violence					0.024	3.143 (1.256 – 7.867)
Experienced	16	53.3	16	26.7		
Not Experienced	14	46.7	44	73.3		
Sexual Domestic Violence						
Experienced	11	36.7	9	15	0.039	3.281 (1.175 – 9.157)
Not Experienced	19	63.3	51	85		

Table 4. Multivariate logistic regression modeling of patriarchal culture factors on the occurrence of antepartum bleeding at Mitra Medika General Hospital, Bandar Klippa, Indonesia

Variables	B	S.E.	Wald	df	*P value*	Exp. (B)	95% CI	
							Low	Upper
Decision-making	1.148	0.587	3.826	1	0.050	3.151	0.998	9.950
Family Support			9.424	2	0.009			
Family Support_Inadequate	2.108	0.696	9.162	1	0.002	8.230	2.102	32.221
Family Support_ Adequate	1.229	0.619	3.947	1	0.047	3.418	1.017	11.490
Psychological Domestic Violence	0.626	0.548	1.305	1	0.253	1.869	0.639	5.468
Sexual Domestic Violence	1.248	0.588	4.507	1	0.034	3.485	1.101	11.035
Constant	-2.923	0.684	18.250	1	0.000	0.054		
Omnibus Test: 0.000					Nagelkerke R Square: 0.324			

In the bivariate analysis, the factors significantly associated with antepartum bleeding were decision-making, family support, psychological domestic violence, and sexual domestic violence. The variable of physical domestic violence was not associated with antepartum bleeding. The prevalence of decision-making dominance in the case group was attributed to husbands, whereas in the control group, it was attributed to wives. The majority of family support in the case group was categorized as sufficient, while in the control group, most family support was rated as good. The highest prevalence of domestic violence was psychological violence, followed by sexual violence, and physical violence.

In the multivariate analysis, the variable of physical domestic violence was excluded from the model due to its p-value of >0.25. The variable of psychological domestic violence acted as a confounder, causing a change in the odds ratio (OR) of more than 10% in the decision-making variable. Therefore, the variable of psychological domestic violence was included in the final multivariate model. Based on the Exp.(B) or OR values, the factor mostly associated with antepartum bleeding was the insufficient family support (p=0.002; OR 8.230). The Nagelkerke R Square result of 0.324 indicates that the independent variables in the multivariate model can explain 32.4% of the occurrence of antepartum bleeding. This implied that 67.6% of other factors beyond the scope of this study influenced the occurrence of antepartum bleeding.

Calculation of probability of antepartum bleeding was based on the b values of significant factors in the final model. Thus, from the multivariate modeling analysis, the probability of antepartum occurrence was derived as in Table 5. Based on Table 5, it was found that the likelihood of pregnant mothers experiencing antepartum bleeding was 83% if they experienced all the risk factors. Conversely, if they did not experience all the risk factors, the probability of pregnant mothers experiencing antepartum bleeding was 5.09%.

Table 5. Probability of antepartum bleeding occurrence at Mitra Medika General Hospital, Bandar Klippa, Indonesia

Variables				Probability (%)
Decision-making by husband	Family Support		Experiencing sexual domestic violence	
	Inadequate	Adequate		
✓	✓	×	✓	83
✓	×	✓	✓	60.9
×	✓	×	✓	60.9
✓	✓	×	×	58.9
×	×	✓	✓	39
✓	×	×	✓	37.1
✓	×	✓	×	36.7
×	✓	×	×	29.7
×	×	×	✓	23.8
×	×	✓	×	15.5
✓	×	×	×	14.4
×	×	×	×	5.09

The influence of patriarchal culture on antepartum bleeding decision making

Very often, within household dynamics, a wife's role is positioned as a subject where all final decisions rest in the hands of the husband. This goes beyond just determining aspects related to healthcare; in other matters as well, the opinions of wives are frequently overlooked.[10] Decision-making is often based on various considerations, one of which is economic and financial status; however, it ultimately depends on the prevailing circumstances at the time the decision is made.[11]

Based on observations made in the field, it is evident that the extent of a husband's role in decision-making within the household is undeniably tied to the wife's employment status. Frequently, husbands prohibit their wives from pursuing careers, so much so that when a wife decides to use her husband's money to meet personal or family needs, she often needs to seek his permission first. This situation instills fear in women when deciding matters concerning household needs, healthcare services, and even pregnancy check-ups. This fear can lead to delayed intervention, becoming a boomerang for pregnant women. This is because women find it challenging to take the initiative to take action, which results in delayed medical treatment.

The absence of decision-making freedom for women within the family is a discriminatory act that has negative implications for mental and physical health. Discrimination has adverse effects on pregnant mothers, triggering psychological and physiological stress. Severe stress can stimulate the sympathetic nerves, subsequently increasing blood pressure gradually. In other words, the greater the stress, the higher the blood pressure, which can lead to antepartum bleeding.[12]

To prevent delays in the care of pregnant women due to male dominance in decision-making, efforts are needed to empower women in enhancing antenatal visits as an early detection approach for antepartum bleeding. An example is the "Devi's Strategy" a women empowerment program which involves women's groups using participatory learning and action cycles while employing a two-tier empowerment strategy — community and individual levels. The desired concept of women's empowerment includes their participation in decision-making, gentle negotiation, protection against all forms of discrimination, and active participation in their own health.[13]

Family support

In line with the research conducted by Paulina Lince Suwo (2020)[14], a well-functioning family role in caring for and nurturing pregnant mothers is strongly associated with preventing pregnancy complications. The findings of this research were consistent with those of Sunaringtyas' study (2023)[15], where the majority of family support provided to the respondents fell into the "insufficient" category, particularly in the case group. This was because respondents viewed prenatal check-ups as routine activities that pregnant women can independently manage. This incorrect perception of the respondents can influence family decisions regarding accompanying pregnant women, leading to less attention and absence of family support during prenatal check-ups.

Active family support during pregnancy benefits the physical and mental health of mothers, as well as the growth and development of the fetus. Support can manifest in the form of affection, trust in the pregnant mother, care, and active family involvement—all of which positively influence fetal growth, maternal physical and emotional health. Support provided can take the shape of attention, affection, trust in the pregnant mother, and tenderness.[16] Addressing this issue as early as possible is crucial, as pregnant mothers without emotional support from their families are more likely to experience stress, which increases the likelihood of complications occurring.

Physical domestic violence

The findings in this study was also in line with the findings of Martin-de-Las-Heras et al. (2019)[17] and Elkhateeb et al. (2021)[18], stating that physical violence is not associated with the occurrence of antepartum bleeding. Physical violence during pregnancy can be linked to high blood pressure, severe nausea, and even kidney and urinary tract infections. It can lead to vaginal bleeding, placental issues, premature rupture of membranes, and preterm delivery. According to Auger et al., (2022)[19] physical violence can increase the risk of antepartum bleeding, and the findings suggest that the physical violence experienced by mothers can be detrimental to both the mother and the fetus.

Physical violence is also associated with placental abruption, antenatal and postpartum bleeding, and cesarean section delivery. Women who experience physical violence during the third trimester may be especially vulnerable due to their protruding bellies and decreased uterine wall thickness, which provides less protection against blunt trauma.[20] Physical trauma to the abdomen can damage the placenta and lead to placental abruption and bleeding, which is an indication for a cesarean section.[19]

Psychological domestic violence

This study was in line with Martin-de-Las-Heras et al., (2019)[17] and Khatoon et al., (2021)[21] that psychological violence is associated with antepartum hemorrhage. Psychological violence during pregnancy can increase the risk of antepartum hemorrhage through psychosocial or physical stress, depression, anxiety, isolation, decreased social support, and low self-esteem.[22] Stress due to psychological violence during pregnancy can increase the activity of the hypothalamic-pituitary-adrenal (HPA) axis. Higher levels of HPA hormones, including corticotropin-releasing hormone (CRH), can restrict blood flow to the placenta, which can result in placental abruption.[23]

Pregnant women who experience psychological violence are twice as likely to not have prenatal examinations until the third trimester and significantly more likely to miss three or more prenatal visits. This is because psychological violence can intimidate and control access to health care, medication, nutrition, and financial resources, resulting in some women arriving late for prenatal visits.[24]

Sexual domestic violence

This study confirmed a research conducted by Auger et al., (2022)[19] and Gisladottir et al., (2016)[25] that there was a relationship between sexual violence and antepartum bleeding. Coercion in having sexual intercourse with pregnant women continuously will have a negative impact on the condition of the mother and fetus. Pregnant women who often have sexual intercourse (once a week or more) are at risk of antepartum bleeding because direct contact between the penis and the placenta can occur, which can interfere with the position of the placenta in the uterus. In addition, sexual violence also has an impact on the mental health of pregnant women. Forced sexual intercourse can put pressure on pregnant women, resulting in unsafe behavior in pregnant women that makes women tend to experience adverse pregnancy outcomes.

This research has several weaknesses, particularly related to the collection of primary data through questionnaires, which have intrinsic weaknesses such as the possibility of recall bias or sampling errors in remembering the information being asked. This is because there were research respondents taken over the past four months. There are limitations in the study regarding the domestic violence variable, the experiences of domestic violence experienced by respondents are observed both before and during the pregnancy period, so the possibility of violence received may originate from previous spouses or not in respondents who have been married more than once.

CONCLUSION

At Mitra Medika General Hospital, Bandar Klippa, Indonesia, the factors that significantly influence the incidence of antepartum bleeding are decision making, family support, psychological abuse, and sexual abuse. Meanwhile, the physical abuse variable has no significant relationship with the incidence of antepartum bleeding. The factor that is most related to the incidence of antepartum bleeding is family support.

DISCLOSURES

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Conflict of interest

All authors have no conflict of interest.

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Author Contribution

All authors have contributed to all processes in this research, including preparation, data gathering and analysis, drafting and approval for publication of this manuscript.

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