

Research Article

Choice of Delivery Places and Factors which Influence it in the Aceh Besar Regency

Pilihan Tempat Persalinan Ibu dan Faktor-Faktor yang Mempengaruhinya di Kabupaten Aceh Besar

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Abstract

Objective : To determine the relationship of maternal delivery and the factors that influence in Aceh Besar regency of Aceh Province.

Methods : We used a cross-sectional study design. Data were collected in all Community Health Centres in each sub-district in Aceh Besar regency of Aceh province. The total sample size of this study was 80 patient data, with details of 40 maternity patients in health facilities and 40 patients who were delivered to non-health facilities. Data were taken on factors that influence the choice of place of delivery, i.e. travel time from home to health facilities, age, parity, antenatal care, education, and income.

Results : The result of chi-square test showed significant relation time ($p = 0.000$), Education ($p = 0.011$), parity ($p = 0.000$), antenatal care ($p = 0.025$), age ($p = 0.003$), revenue ($p = 0.022$) with maternity delivery in Aceh Besar regency. From the result of multivariate analysis found that travel time is the most influential factor in choosing the birth place with (OR = 51.976).

Conclusions : The result of multivariate analysis showed that travel time was the most influential factor in choosing the delivery place with 51.976 times.

Keywords : health facilities, maternal mortality rate, safe delivery.

Abstrak

Tujuan : Untuk mengetahui hubungan tempat persalinan ibu dan faktor-faktor yang mempengaruhi di Kabupaten Aceh Besar Provinsi Aceh.

Metode : Penelitian ini menggunakan desain potong lintang. Data diambil di seluruh Puskesmas di setiap kecamatan di Kabupaten Aceh Besar Provinsi Aceh. Jumlah total sampel penelitian ini adalah 80 data pasien, dengan rincian 40 pasien yang bersalin di fasilitas kesehatan dan 40 pasien yang bersalin di non fasilitas kesehatan. Data yang diambil mengenai informasi faktor yang mempengaruhi pilihan tempat persalinan, yaitu waktu tempuh dari rumah ke fasilitas kesehatan, usia, paritas, ANC, pendidikan, dan pendapatan.

Hasil : Hasil uji chi-square menunjukkan terdapat hubungan secara signifikan waktu tempuh ($p=0,000$), pendidikan ($p=0,011$), paritas ($p=0,000$), ANC ($p=0,025$), usia ($p=0,003$), pendapatan ($p=0,022$) dengan pemilihan tempat persalinan ibu di Kabupaten Aceh Besar. Dari hasil analisis multivariate didapatkan waktu tempuh adalah faktor yang paling berpengaruh dalam memilih tempat persalinan dengan (OR=51,976).

Kesimpulan : Berdasarkan hasil analisis regresilogistik, kelompok yang waktu tempuhnya dari rumah ke fasilitas kesehatan <30 menit 51,976 kali lebih besar kemungkinan memilih tempat persalinan difasilitas kesehatan.

Kata kunci : angka kematian ibu, fasilitas kesehatan, persalinan aman.

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INTRODUCTION

Maternal Mortality Rate (MMR) in Indonesia based on Indonesia's demographic and health surveys is still very high at 359 maternal deaths per 100,000 live births for the period 2008-2012, whereas in the period 2004-2007 there were 228 maternal deaths per 100,000 live births.^{1,2} Regency Aceh Besar Aceh Province is one of the contributing areas of MMR in Indonesia. Based

on the health profile of Aceh province in 2012, MMR reached 192 per 100,000 live births.³

Causes of maternal death can occur directly and indirectly. In Indonesia, the causes of maternal mortality are postpartum hemorrhage, eclampsia or disturbances due to high blood pressure during pregnancy, long-standing complications of abortion, and infection. Bleeding that is usually unpredictable and occurs suddenly

is responsible for 28% of maternal deaths. Most cases of bleeding during the puerperium occur because of placental retention and uterine atony. This indicates a lack of proper management of the third stage of the birth process (prenatal, antenatal, and postnatal) and service of obstetric emergencies and timely neonatal care. Eclampsia is the second leading cause of maternal death, which is 24% of maternal deaths in Indonesia. Unsafe abortion. Responsible for 5% of maternal deaths in Indonesia.

One of the main factors contributing to high maternal mortality is the limited number of adequate delivery sites as well as delivering in non-health facilities. Globally 60 million mothers deliver in non-health facilities, especially at home, and 52 million birth mothers are not helped by professional health workers.⁴ High rates of neonatal mortality are common in childbirth,⁵ especially in preterm infants.⁶ Efforts to reduce the risk of maternal and child health is of utmost importance by choosing a place of delivery at a health facility. Several studies have been conducted suggesting the relationship between travel time and choice of place of perspectives, as in Kenya the distance from home to health facility is the factor that most influences the choice of delivery.⁷ Research in Nigeria states 31% of mothers who do not give birth in health facilities because they do not have adequate means of transportation.⁸ Studies in the Philippines say a 1% reduction in travel time to public transport is likely to increase the choice of delivery sites in health facilities by about 1.2%,⁹ and community must have a good assumption on health facilities to determine the choice of delivery.^{10,11}

The help of nationally trained health workers increased from 46.13% in 1995 to 81.25% in 2011. Primary Health Care Survey Data 2010 showed a proportion of 82.20%. However, deliveries at health facilities are still low, at 55.40% (Primary Health Care Survey Data, 2010).¹² Many unwanted outcomes from childbirth in non-health facilities, such as maternal deaths, mostly occur at the time of delivery, of which 9 out of 10 deaths mother occurs during delivery and around it (Ministry of Health, 2009). And neonatal mortality 40% of all under-five infant deaths.¹³ Travel time to health

facility more than 30 minutes, education level, parity, and behaviour performing antenatal care in pregnancy at this time will influence the choice between maternity delivery in non-health facilities or maternal delivery at a health facility to achieve safe delivery and simultaneously correlate with decreasing Maternal Mortality Rate.¹⁴

METHODS

This study was conducted using a cross-sectional design. Mothers in 2016 who are fully registered in the Monitoring the Local Area of Maternal and Child Health in Community Health Care sub-district of Aceh Besar regency. Data were collected from July 2017 to December 2017 with all data and samples being collected with data collection in all Community Health Care in each sub-district in Aceh Besar Regency, Aceh Province, which is 23 subdistricts. The recorded data of mothers delivering labour in non-health facilities was 40 so that the study took a total of 40 maternity mothers in Faskes as a control.

RESULTS

During the year 2016 Monitoring the Local Area of Maternal and Child Health listing that entered inclusion criteria only 14 districts. The recorded data of mothers delivering labour in non-health facilities was 40 so that the study took a total of 40 maternity mothers in Faskes as a control

Table 1. The Frequency Distribution of Maternity Data in Aceh Besar regency by 2016 is based on the Number of Patients Giving Birth in Non-Health Facility, and Who Gave Birth in Health Facility as Control

Residence	Frequency	%
Baitussalam	2	2.0
BlangBintang	4	5.0
Darussalam	8	10.0
Indrapuri	10	12.5
Ingin Jaya	6	7.5
Kota Jantho	6	7.5
KutaBaro	4	5.0
KutaMalaka	6	7.5
LembahSeulawah	8	10.0
Leupung	6	7.5
Lhoknga	8	10.0
Montasik	2	2.5
Seulimum	6	7.5
SukaMakmur	4	5.0
Total	80	100.0

Table 2. Relationship of Delivery Place with Travel Time from Home to Health Facility, Education Level, Parity, Behaviours of Antenatal Care during Pregnancy, Age, and Monthly Income in Regency of Aceh Besar Year 2016.

Variables	Place of Birth				P-Value
	Health facility		Non Health facility		
	F	%	F	%	
Traveling time					
<30 minute	33	71.7	13	28.3	0.000
>30 minute	7	20.6	27	79.4	
Education					
Low	20	39.2	31	60.8	0.011
High	20	69.0	9	31.0	
Parity					
Primipara	30	69.8	13	30.2	0.000
Multipara	10	27.0	27	73.0	
ANC					
No	15	37.5	25	62.5	0.025
Yes	25	62.5	15	37.5	
Age					
Not at risk	30	69.8	17	36.2	0.003
At risk	10	30.3	23	69.7	
Income					
<2.5 million	19	39.6	29	60.4	0.022
> 2.5 million	21	65.6	11	34.4	

Table 3. Based on Bivariate Analysis, it is Known that the Variable having the Sig Value <0.25 is the Result of Chi-Square Test that is the Time of Antenatal Care and Parity. The Variables Selected in the Final Model of Logistic Regression with the Enter Model as Tested as Follows.

Variables	B	Sig	Exp(B)	95% CI	
				Lower	Upper
Time	3.951	0.000	51.976	6.874	392.996
ANC	2.882	0.002	17.846	2.878	110.654
Parity	1.838	0.024	6.286	1.281	30.849
Constant	-11.148	0.000	0.000		

DISCUSSION

This study used total sampling based on the total number of patients who delivered in non-health facilities, and equalized the total of the delivery sample in the health facilities as controls. Distribution of residential frequency, the highest sample obtained 10 patients (12.5%) from Indrapuri District. Medium 6 patients (7.5%) from Ingin Jaya Sub-district, Jantho City, Kuta Malaka, Leupung and Seulimum, and at least 2 patients (2.5%) from Baitussalam and Montasik sub-districts.

The results showed that based on the travel time from home to health facility, education level, parity, doing antenatal care, age, and income had significant relationship with the selection of place of delivery.

CONCLUSION

Based on the results of research and discussion, it can be concluded that there is a significant relationship of travel time, education, parity, antenatal care, age, income with maternity selection in Aceh Besar Regency. The result of multivariate analysis showed that travel time was the most influential factor in choosing the delivery place with (OR = 51.976).

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