

Research Article

Complication on Teenage Pregnancy and Related Factors***Komplikasi pada Kehamilan Remaja dan Faktor-faktor yang Mempengaruhi*****Omo A Madjid, Nanda I S Roesman***Department of obstetrics and Gynecology
Faculty of Medicine University of Indonesia/
Dr. Cipto Mangunkusumo General Hospital
Jakarta***Abstract****Objective:** To evaluate related factors, which contribute to complication of teenage pregnancy.**Method:** A cross-sectional research by consecutive sampling method was held upon teenager who was having her first pregnancy or had just been having her first child. This research took place at dr. Zainoel Abidin Public Hospital, Banda Aceh, in period of June until November 2012.**Result:** By demographic characteristic, we obtained that the majority of complication of teenage pregnancy occur in the age range of 17-19 years old and most are within Sex maturation Rate grade 5. The most common complications are caesarean section, premature rupture of membranes and cephalo-pelvic disproportion. There is a significant relation between antenatal visit conducted in accordance with WHO criteria and economic level with the incidence of complication.**Conclusion:** We found significant relation between antenatal visit conducted in accordance with WHO criteria and economic level with the incidence of complication.

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Keywords: complications, teenage pregnancy.**Correspondence:** Nanda Intan. Department of Obstetrics and Gynecology, Faculty of Medicine University Indonesia, Jakarta. Telephone: 0852-18063031. Email: dr_nanda79@yahoo.com**Abstrak****Tujuan:** Menilai faktor-faktor yang memberikan pengaruh terhadap komplikasi yang dapat terjadi pada kehamilan remaja.**Metode:** Dilakukan penelitian potong lintang dengan consecutive sampling terhadap responden remaja yang sedang dalam masa kehamilan ataupun telah melahirkan anak pertama. Data penelitian ini diperoleh dari Rumah Sakit dr. Zainoel Abidin, Banda Aceh selama periode waktu Juni hingga November 2012.**Hasil:** Pada karakteristik demografis didapatkan terbesar pada rentang usia 17-19 tahun dan berada pada Sex Maturation Rate 5. Komplikasi yang paling sering terjadi adalah operasi seksio sesarea, ketuban pecah dini dan cephalopelvic disproportion. Terdapat hubungan yang bermakna ($p < 0,05$) antara kunjungan antenatal yang dilakukan sesuai dengan kriteria WHO dan tingkat ekonomi dengan kejadian komplikasi.**Kesimpulan:** Terdapat hubungan yang bermakna antara kunjungan antenatal dan status ekonomi dengan angka terjadinya komplikasi pada kehamilan remaja.

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Kata kunci: kehamilan remaja, komplikasi.**INTRODUCTION**

Teenage pregnancy is one of the major problems faced by developed and developing countries in the field of obstetrics.¹ Various studies have shown that teenage pregnancy is a high risk pregnancy.² Its implication doesn't end in the mother during pregnancy and delivery, but also causing perinatal complications in infants as well.³ Several complications which may arise include anemia, gestational hypertension, pre - term births, infants with low birth weight, and cephalo-pelvic disproportion.²

Various factors are believed to be responsible for teenage pregnancy; for example th characteristic demographic, family, genetic, sociocultural

aspect, marriage status, economic levels, habits, and education level.^{4,5}

This research was held to evaluate contributing factors related to the complications of teenage pregnancy. In Indonesia, particularly in Banda Aceh, teenage pregnancy is a common thing, since from the sociocultural's point of view, it is not forbidden to become pregnant in early age.

METHODS

The study was a cross sectional study. To collect sample, a consecutive sampling method was performed. This study involved 107 respondents and was conducted in Dr. Zainoel Abidin Public Hospi-

tal, from June to November 2012. Target populations for this study are 10-19 years old women who have their first pregnancy. Inclusion criteria for our study are women who is having her first pregnancy in teen age, willing to consent and join the study, without other related disease, while our exclusion criteria are refuse to consent and incomplete data.

We defined teenage pregnancy as pregnancy that is occurring in women aged 10 to 19 years old. We followed some of our respondent during her pregnancy period and at times we needed to do a retrospective investigation for collecting the database.

RESULT

Of the one hundred and seven samples collected, the patient's age ranged from age 14 to 19 years with a median of 19 years. Most respondents were in Sex Maturation Rate 5. A hundred and four respondents (97.2%) discontinued their education.

Table 1. Demographic Characteristic.

Variable	n	%
Age (years old)		
• 10 - 13 yo	-	-
• 14 - 16 yo	9	8.4
• 17 - 19 yo	98	91.6
Age (years old)		
• Median	19 yo	-
• Modus	55 people	51.4
Sex Maturation Rate		
• SMR 1 - 2	-	-
• SMR 3 - 4	44	41.1
• SMR 5	63	58.9
Education level		

• Low	9	8.4
• Middle	98	91.6
• High	-	-
Education status		
• Student	3	2.8
• Discontinue education	104	97.2

We found 93 respondents (86.9%) who developed complication. The most complication likely to occur were cesarean section (33.33%), premature rupture of the membranes (21.5%) and cephalopelvic disproportion (13.97%).

Table 2. Complication Occur during Pregnancy and Parturition.

Complication	n	%
Anemia	10	10.75
Hypertension	3	3.22
Pre-eclampsia	3	3.22
Eclampsia	0	0
Antepartum haemorrhage	2	2.15
Cephalopelvic disproportion	13	13.97
Cesarean section	31	33.33
Assitsted vaginal birth	6	6.45
Prolong birth	1	1.07
Postpartum haemorrhage	4	4.3
Premature rupture of the membranes	20	21.5

By using chi square analysis, we found no significant relation between age, sexual maturation rate, nutritional status, education status, education level, medical history and habitual activity with the incidence of complication. Meanwhile, we found significant relation between antenatal visit conducted in accordance with WHO criteria and economic level with the incidence of complication.

Table 3. Relation between Antenatal Visit Conducted in Accordance with WHO Criteria with the Incidence of Complication.

Variable	Uncomplicated	Complicated	p
	n(%)	n(%)	
In accordance with WHO	25 (19.2)	17 (22.8)	0.029
Not in accordance with WHO	24 (29.8)	41 (35.2)	

Table 4. Relation between Economic Level and Marital Status with the Incidence of Complication.

Variable	Uncomplicated	Complicated	p
	n(%)	n(%)	
Economic Level			
• Low	10 (16.0)	25 (19.0)	0.014
• Middle	39 (33.0)	33 (39.0)	
• High	0	0	
Marital status			
• Marriage	44	55	0.465
• Unmarriage	5	3	

DISCUSSION

From our study, we found that most respondents were in the age range of 17-19 years. This is in accordance with the results obtained by the data of Survey Kesehatan Ibu dan Anak, 2000, which found that the median age of first pregnancy in Indonesia is 18 years old. Our study found the mode and median of teenage pregnancy in RSUDZA Banda Aceh is at the age of 19 years (51.4%). This is in line with the SMR or Sexual Maturity Levels that we obtained mostly on the SMR 5 which clinically showed range of age between 17-20 years.

Of the total 107 respondents, there were 93 respondents (86.9%) who experienced complications, while 14 respondents (13.08%) had no complications. On the distribution of complications that occurred, three of the most common complications were 31 respondents (33.33%) underwent cesarean surgery, with 20 respondents (21.5%) experienced premature rupture of membranes, and 13 respondents (13.97%) had cephalopelvic disproportion.

We found a significant association between antenatal visits, which conducted in accordance with the WHO criteria, with the number of complications that occur. According to WHO criteria, antenatal visit for developing countries should carried out with a frequency of at least 4 times, once in 1st trimester, once in 2nd trimester and twice in third trimester. This is consistent with research that has been conducted by WHO on the quantity of antenatal visits.

Our analysis showed an association between economic levels with the incidence of complica-

tions, with p value of 0.014. Due to financial problems, can cause the tendency to come late and needed to gain more time, so it will be delayed to be diagnosed and handled. As for the status of marriage, there is no relationship between marital status with the incidence of complications.

CONCLUSION

Teenage pregnancy can be complicated with maternal morbidity and mortality. We found significant relation between antenatal visit conducted in accordance with WHO criteria and economic level with the incidence of complication in Banda Aceh. This study was a pilot study for teenage pregnancy in Banda Aceh, and further studies will be needed in the future.

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