



ปัจจัยที่เกี่ยวข้องกับการฝากครรภ์ของวัยรุ่นตั้งครรภ์ครั้งแรกที่อาศัยอยู่ในพื้นที่ชนบทของประเทศอินโดนีเซีย

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บทคัดย่อ

การวิจัยเชิงพรรณนาครั้งนี้ มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างปัจจัยคัดสรรบางประการ (ประกอบด้วย การสนับสนุนทางสังคม เอกสิทธิ์ ความรู้เกี่ยวกับการฝากครรภ์ ปัญหาในการเดินทางมาฝากครรภ์) กับการฝากครรภ์ของหญิงวัยรุ่นอินโดนีเซียที่ตั้งครรภ์ครั้งแรก (อายุครรภ์มากกว่า 28 สัปดาห์) จำนวน 85 คน ซึ่งอาศัยอยู่ในอำเภอ Pekalongan ประเทศอินโดนีเซีย เก็บรวบรวมข้อมูลระหว่างเดือนกันยายนถึงเดือนตุลาคม พ.ศ. 2558 ที่คลินิกฝากครรภ์ของศูนย์บริการสาธารณสุขปฐมภูมิ การวิเคราะห์ข้อมูลใช้การวิเคราะห์สองตัวแปรโดยใช้การทดสอบไคสแควร์เพื่อค้นหาปัจจัยที่เกี่ยวข้องกับการไปรับบริการฝากครรภ์

ผลการวิจัยพบว่า ในหญิงวัยรุ่นที่ตั้งครรภ์ครั้งแรกร้อยละ 31.8 มีการฝากครรภ์ไม่ครบตามเกณฑ์ ครบถ้วนมีอำนาจในการตัดสินใจในการดูแลสุขภาพของหญิงตั้งครรภ์ซึ่งมีความสัมพันธ์กับการฝากครรภ์อย่างมีนัยสำคัญทางสถิติ ($p=0.000$) เกือบทุกมิติของการสนับสนุนทางสังคมมีความสัมพันธ์กับการฝากครรภ์ ยกเว้นการสนับสนุนการมีปฏิสัมพันธ์เชิงบวก ($p<0.05$) ส่วนใหญ่ไม่มีความรู้เกี่ยวกับการฝากครรภ์ เช่น ตารางการฝากครรภ์ การให้บริการฝากครรภ์ (การคัดกรอง) ความรู้เกี่ยวกับการตั้งครรภ์วัยรุ่น ($P=0.000$) ในลักษณะที่คล้ายกัน พบว่า ปัญหาการเดินทางมีความสัมพันธ์กับการฝากครรภ์อย่างมีนัยสำคัญ ($p=0.001$) ดังนั้นจึงควรให้ความสำคัญในการให้ข้อมูลเกี่ยวกับความรู้ในการฝากครรภ์ ส่งเสริมการสนับสนุนทางสังคม และการส่งเสริมการตัดสินใจฝากครรภ์ของหญิงวัยรุ่นที่ตั้งครรภ์ครั้งแรกดีกว่าที่จะให้คำปรึกษาก่อนแต่งงาน

คำสำคัญ: การฝากครรภ์ วัยรุ่นตั้งครรภ์ครั้งแรก ความรู้เกี่ยวกับการตั้งครรภ์ การสนับสนุนทางสังคม เอกสิทธิ์ ปัญหาการเดินทาง พื้นที่ชนบทของประเทศอินโดนีเซีย

Introduction

Pregnancy in adolescents is a major concern for health care and society worldwide. In Indonesia, there has been increasing a number of adolescent childbearing who living in rural areas in 2012.¹ In addition, the government in Central Java, the largest area of high density population in Indonesia, had high prevalence of adolescent mothers which was about 25.9 per 1,000 women.²

It is high risk of pregnancy in adolescents which may lead to a vicious cycle for both mother

and fetus.³ They also might not be able to take care of her pregnancy well as their developmental stage, and lack of experience as most of them were primigravida. This problem could be prevented by adequately seeking ANC.⁴ Despite the national recommendation, previous studies in Indonesia showed that pregnant adolescents in rural area tend to have inadequate ANC visit.^{5,6} As pilot interviewed on August 2014 in Pekalongan district (60%)

ANC provides an opportunity to empower pregnant adolescents to prevent obstetric

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**อาจารย์ศูนย์วิจัยและฝึกอบรม ใน สุขภาพของผู้หญิง และเพศที่ คณะพยาบาลศาสตร์ มหาวิทยาลัยขอนแก่น



complication, thus it should start early and regularly.³ Moreover, it relates to low utilize of delivery services particularly in rural area,⁷ as adolescents more likely to give birth at home rather than adult.^{1,8} It is believed that ANC utilization as healthcare seeking behavior, play major role in health of primigravida pregnant adolescents who abruptly restricts an social support and low decision-making power, which will influence on economically of life.⁴ Previous studies reported significant of certain factors to ANC utilization among adolescents,

derived from determining of health care seeking behavior among pregnant adolescents, namely social support, autonomy, knowledge and transportation problem as shown the accessibility of the health care.⁴ Despite these acknowledges, in Indonesia, factors that affect on ANC utilization among adolescents have never been studied, thus this study aimed to explore the relationships between those selected factors and ANC utilization among pregnant adolescents living in the rural areas of Indonesia.

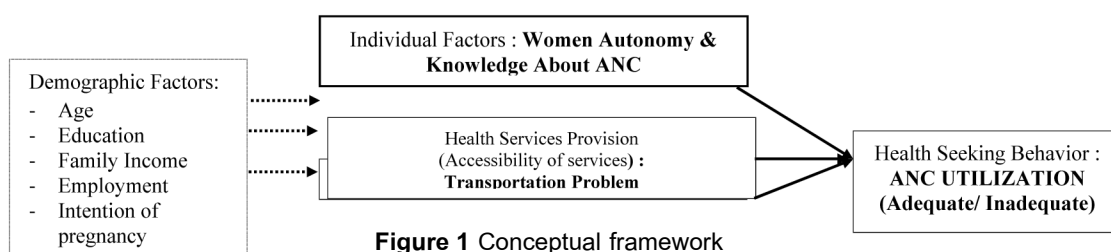


Figure 1 Conceptual framework

Material and methods

Sample: Sample size was 85 by Lwanga and Lemeshow's formula (1991) with confidence interval setted at = 1.96, estimation proportion at 0.33, and absolute error at 10%. Systematic random sampling was used to recruit adolescents who attended at ANC clinic in Pekalongan district, for them who were primigravida and in more than 28 weeks of gestation.

Procedures : A descriptive cross-sectional study was conducted from September to October, 2015 by 3 Research Assistant (RA) that have been trained by researcher. RAs were informed objective of this study and the pregnant adolescent's right to participate. Adolescents who agreed to participate were asked to complete a packet of questionnaire on their own, within 30 minutes in a private room of ANC clinic. The Institute Review Board (IRB) at Khon Kaen University and Department of National

Health Indonesia from branch located in Pekalongan approved the protocol of study in September, 2015.

Measurement : There were four self-report questionnaires. First, a demographic questionnaire developed by the researcher to assess characteristics of participants, including age, gestational age, education, family income, employment status, planned pregnancy and transportation problem. Second, a modified questionnaire of Knowledge about ANC⁷, contained 23 items with each item score 0 for correct and 1 for incorrect answer, pertaining to knowledge on early booking, follow up, nutrition in pregnancy, screening test, pregnancy in adolescent and preparation for delivery. Total score of 9.6 or more interpret as good knowledge and less than 9.6 as poor knowledge. Third, a modified questionnaire of women's autonomy⁹, included 11 items by using the construction method of the human development



index United Nation Development Programme.¹⁰ The scores were recorded into two categories, low and high level of women's autonomy. There were four subscales of women's employment and economic decision-making autonomy (EEI), family health care decision making autonomy (FFI), freedom of movement autonomy (FMI), women's attitude toward partner's violence (WAPVI). Fourth, a modified of Medical Outcome Study-Social Support Survey (MOS-SSS) questionnaire¹¹, consisted 23 items of emotional, informational, tangible, positive interaction and appraisal supports. Using the median, the social support can be divided into the categories of more and poor social support in each dimensions. Mother and Child (MCH) Handbook used to measure ANC utilization by looking at the time of ANC initiation and the number of ANC visit as Ministry of Health recommendation in Indonesia.

Validity and Reliability : The instruments were using back translation technique by 3 bilingual translators. Four professional experts examined the content validity of the scale for the study. The result of analysis the reliability test by using Cronbach's alpha coefficient was good for Women's Autonomy Questionnaire (.813) and also for Knowledge About Anc (.870), and excellent for Medical Outcome Study (Mos) Social Support Survey (.946).¹² The mean score for S-CVI/ Ave were .96 for Women's autonomy questionnaire, and .98 for Knowledge about ANC and MOS-Social Support Survey.

Statistical analysis : Descriptive statistics and bivariate Chi-Square test were employed to analyze demographic data, studied variables and association between selected factors (women's autonomy, knowledge about ANC, social support and transportation problem) and ANC utilization.

Results

Demographics characteristics of subjects

The majority of pregnant adolescents were in late adolescence (91.8%) and gestational age between 28 to 31 weeks. There were 64.7% of the samples had completed elementary school, 80% of them were unemployed, and about one half (55.3%) were from low income families. Interestingly, there were 78.8% adolescents had planned their pregnancy. There was a problem of accessing to ANC clinic because of transportation issue, which is almost equal of having and no problem of transportation (44.7% and 55.3%, respectively)

ANC utilization

This study reported that there still available a significant number of adolescents who experienced inadequate ANC utilization (31.8%). This resulted from a combination of late preliminary ANC services (>14 weeks of gestation), and/or missed ANC visits (neither 1st or 2nd trimester). Only three participants who visited one ANC in their third trimester which means that they missed scheduled visits in their 1st or 2nd trimester. On the other hand, most participants who left their first visitation, continued to take more visit to be more than twice when they already in third trimester or they thought that they are almost labor (74.4%). (Table 1)

Knowledge about ANC

This study reported that there were adolescents who didn't know the regular visit of ANC, both schedule and number of visit (41.7% and 34.1, respectively). Interestingly, majority of them did not know that pregnancy in their aged are prone to complication (68.2%). Consequently, they misunderstood in time of visiting doctor (57.6%). Moreover, majority of them didn't know the screening test that they should take such as



screening for Hepatitis B (80%), AIDS (75.3%), Diabetes (55.3%), and more than 60% for urine test.

The relationship between knowledge about ANC and the extent to which they utilized ANC was analyzed using chi-square test, with a mean of 13.09 (SD= 3.452). The score was normally distributed, it divided into 2 groups (good and poor knowledge). Result showed that there exists an association between knowledge and ANC utilization among pregnant adolescents. (Table 2)

Women's Autonomy

The calculation of this variable used the construction method of the human development index (United Nation Development Programme)¹⁰ which was divided into low and high level of women's autonomy. Thus, descriptive analysis stated majority of pregnant adolescents who live in rural area of Indonesia had low levels of overall women's autonomy (61.6%), particularly in EEI (80%). In contrast, they had a high power in FFI (79.1%). However, adolescents still have constrained to getting the hospital and visiting family (23.5%). Moreover, many adolescents were still justifiable with wife beating in reasons if they leave house without informing husband (18.8%), neglects something that it is important to fetus (17.6%), or when they refuse to have sex with their husband (15.3%).

To conclude, the data reported that high level of women's autonomy could increase health behavior among pregnant adolescents to utilize ANC adequately (p -value = 0.013, X^2 = 6.168). Moreover, among the four dimensions in women's autonomy, only FFI had a relationship with ANC utilization (p -value = 0.000, X^2 = 31.264). It describes in table below:

Social Support (MOS-SSS)

Using the median, the social support can be divided into the categories of more social support and poor social support. Interestingly, the data present almost equal number (51.8% vs 48.2%) between adolescents who perceived more and poor support in overall score of social support. Bivariate analysis reported that samples who had adequate ANC utilization are more likely to perceive emotional support (p = .002), tangible support (p = .008) informational support (84.6%), and appraisal dimensions (p = .046). Moreover, an increase of overall social support will cause adolescents to have adequate ANC utilization (p = .000).

Transportation problem

Respondents who do not have any problem regarding the transportation matter are more likely to have adequate ANC utilization, and otherwise (p -Value=.011, X^2 = 6.525).

Discussion

Pregnant adolescent becomes increasingly than those non-pregnant to have lower level of education, thus, her socio economic status lower as does her social capital which lead to lack of ANC.⁵ Congruently, in this study majority of pregnant adolescents only completing elementary school. It leads to low opportunity to have stable job,¹³ as this study, majority of them were unemployed. Consequently, more than half living in low income. This is similar to other studies in Indonesian.^{14,15} Regarding the intention of pregnancy, majority planned their pregnancy. It contradicts with other previous studies, as in Thailand and Turkey.^{13,16} It may be caused by traditionally early marriages among adolescents, which is common in rural areas where marriage value means they should have a baby soon.¹⁷



Participants were more likely in late adolescence which is similar with previous studies.¹⁵ Late adolescents are more developed and rational. Thus they are more likely to seek ANC,¹⁸ as per result of high percentage of ANC utilization among them (68.2%). However there were still a significant number of pregnant adolescents who reported inadequate ANC utilization (31.8%) which would be at risk for increasing the rates of complications during pregnancy or labor among them.¹⁹ Previous studies reported that adolescents are less likely to seek ANC in Indonesia,²⁰ and other country.²¹ It may cause by the believe that pregnancy is fine,¹⁴ or family problem.²² Thus, they seems like having low knowledge of ANC which proved to be factor influence to ANC utilization among them.^{14,23}

As per result of some contents of the knowledge regarding ANC in this study, adolescents did not know some knowledge such as shcedule, number of visit, and some screening test (screening for hepatitis B, AIDS, and bacterial infections). It's similar with previous research in Uganda²⁴. Moreover, participants also had low knowledge regarding the potentially of complication among adolescents and recommendatioin to have labor in hospital. It will impact on low delivery services utilization in future.¹⁶

Basically, choosing what to do about pregnancy may be the most important decision that an adolescent has ever had to make in her life. It usually describes by women's autonomy,²⁵ which lead to lower level of ANC utilization, as finding where adolescents with the greater women's autonomy are more likely to have adequate ANC utilization ($p=.013$) which is similar in developing country.²⁶ Regarding, all of dimensions in women's autonomy, It can be seen that having a part in process of decisin making will turn to increase

utilization of ANC ($p=.000$). Thus, adolescents may need help or agreement form other family members regarding the expenditure for health care. Moreover, adolescents' power also influence by men's control of her action, as finding in Bangladesh.¹⁰

Regarding the social support, it has been reported that it will influence to behavior during pregnancy, as in this study which is congruent with other previous studies in Indonesia⁹, where for an increase in level of social support caused them to have adequate ANC utilization ($p=.000$). However, in 5 dimensions of social support, this study found almost all of dimensions have an association with ANC utilization. In contrast, the happiness of relationship with other person here, does not affect to pregnant adolescents in encouraging for ANC utilization ($p>.05$).

Issues of access is also another factor which exerts influence over their health care utilization. As per result of this study that found adolescents who do not have any problem regarding the transportation more likely to have adequate ANC utilization, and otherwise ($p=.011$, $X^2 = 6.525$).

Limitation and Recommendation

Data collection was carried out only estimate the adequacy of ANC utilization among those in 28 weeks. It would be better if we look at adolescents mother to calculate ANC utilization in exact.

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Table 1 Relationship between knowledge about ANC and ANC utilization

Knowledge of ANC	ANC utilization			
	Adequate (n, %)	Inadequate (n, %)	p-Value	X ²
Good Knowledge(≥ 9.6)	56 (81.2)	13 (21.9)		
Poor Knowledge (< 9.6)	2 (12.5)	14 (87.5)		
Total Score Knowledge	68.2	31.8	.000*	28.249

**Table 2** Relationship between women's autonomy and ANC utilization

Dimensions of Women's Autonomy	ANC Utilization		p-Value	X ²
	Adequate (n, %)	Inadequate (n, %)		
EEI			.215	1.540
Low (<0.5)	45 (65.2)	24 (34.8)		
High (≥0.5)	13 (82.4)	3 (18.8)		
FFI			.000*	31.264
Low (<0.5)	2 (11.8)	15 (88.2)		
High (≥0.5)	56 (82.4)	12 (17.6)		
FMI			.656	.535
Low (<0.5)	11 (61.1)	7 (38.9)		
High (≥0.5)	47 (70.1)	20 (29.9)		
WAPVI			.415	.665
Low (<0.5)	13 (76.5)	4 (23.5)		
High (≥0.5)	45 (66.2)	23 (33.8)		
Overall Women's Autonomy			.013*	6.168
Low (<0.5)	31 (58.5)	22 (41.5)		
High (≥0.5)	27 (84.4)	5 (15.6)		

Table 3 Relationship between MOS-SSS and ANC utilization

Dimensions of Social Support	ANC Utilization		p-Value	X ²
	Adequate (n, %)	Inadequate (n, %)		
1. Emotional				
More social support (≥50)	36 (83.7)	7 (16.3)	.002*	9.628
Poor social support (<50)	22 (52.4)	20 (47.6)		
2. Information support			.000*	18.050
More social support (≥56)	45 (84.9)	8 (15.1)		
Poor social support (<56)	13 (40.6)	19 (59.4)		
3. Tangible support			.008*	6.953
More social support (≥56)	35 (81.4)	8 (18.6)		
Poor social support (<56)	23 (54.8)	19 (45.2)		
4. Positive interactionsupport			.088	2.907
More social support (≥56)	33 (76.7)	10 (23.3)		
Poor social support (<56)	25 (59.5)	17 (40.5)		
5. Appraisal support			.046	3.983
More social support (≥68)	37 (77.1)	11 (22.9)		
Poor social support (<68)	21 (56.8)	16 (43.2)		
6. Overall Social support			.000*	13.668
More social support (≥54)	38 (86.4)	6 (13.6)		
Poor social support (<54)	20 (48.8)	21 (51.2)		



Selected Factors Related to Antenatal Care Utilization among Primigravida Pregnant Adolescents Living in Rural Area of Indonesia

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Abstract

This descriptive correlation study aimed to examine relationships between selected factors, including social support, autonomy, knowledge concerning Antenatal Care (ANC) and transportation problem, and ANC utilization among 85 primigravida Indonesian married adolescents (>28 weeks of gestation) in Pekalongan district, Indonesia. Data were collecting during September to October, 2015 in ANC clinic, Primary Health Center. The bivariat analysis used Chi Square in order to find out the factors that have a significant association with ANC utilization. The results showed that among 85 participants, still exist significant number (31.8%) who had inadequate ANC utilization. Only familial health care decision making power which was found to be significantly associated with ANC utilization among samples ($p = 0.000$). Interestingly, almost all dimensions of social support had a significant association with ANC utilization, except positive interaction support ($p < 0.05$). Regarding knowledge about ANC ($p = 0.000$), showed majority didn't know particular knowledge such as schedule, component of services (screening), knowledge about adolescent pregnancy. Similarly, transportation problem also showed a significant association with ANC utilization ($p = .011$). Effort should focus on information in the particular knowledge of ANC as a result, and ensure about social support and decision making power that they should have during their pregnancy, better to give in consultation before marriage.

Keywords: ANC utilization, pregnant adolescents, knowledge about ANC, social support, women's autonomy, transportation problem and Indonesia.

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