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## **Analysis of Difference of Unwanted Pregnancy Incidences in Urban Area and Rural Area Based on Characteristics of Teenagers in Sleman Regency, Special Region of Yogyakarta**

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### **Abstract**

Based on population census in 2000, the number of teenagers in Indonesia was 62.594.200 or around 30,41% of total Indonesiapopulation.In Indonesia premarital sex, based on a survey by FEUI Demographic Institution in 33 provinces in 2008, showed 63% Indonesian junior high school (SMP) ageand high school (SMA) age teenagers had premarital sex.In 2010, in several regions in Indonesia, particularly Yogyakarta, 37% of 1.160 teenagers had unwed pregnancies.To analyze the difference of unwanted pregnancy incidences in urban area and rural area based on characteristics of teenagers in Sleman Regency, Special Region of Yogyakarta.The type of this study was analytic observational using retrospective approach.The population in this study was all married teenagers in SlemanRegency, totaling

in 472. The sampling technique was total sampling. This study used quantitative correlation analysis, which was chi square. Unwanted pregnancy incidences in Sleman Regency, Special Region of Yogyakarta, mostly happened in urban area (31.1%).  $\chi^2$  count = 5.503 and p value 0.034. OR = 1.789. Living environment was a risk factor of teen pregnancy in Sleman Regency, Yogyakarta, risking 1.789 times teen pregnancy. There was a difference between unwanted pregnancy incidences in urban area and rural area based on characteristics of teenagers in Sleman Regency, Special Region of Yogyakarta.

**Keywords :** Unwanted pregnancy, Rural and Urban Areas, Characteristic of Teenager

## **Introduction**

Teenager is defined as a transition period between childhood to adulthood, where during the period there is rapid growth, including reproductive functions, influencing developmental changes, whether physical, mental, or social [1]. Adolescence is the most difficult period for an individual. This period is called the most critical to development in the next life stages. Based on population census in 2000, the number of teenagers in Indonesia was 62,594,200 or around 30.41 % of total Indonesian population [2].

Generally, teenagers have high curiosity. Teenagers tend to want to explore everything and try everything they haven't experienced. Desire to be like adults encourages teenagers to try what adults often do, including sexual matters [3].

Unavailability of accurate and correct information on reproductive health forces teenagers to find access and explore themselves. Pornographic magazines, books, and films describe the pleasure of sex without teaching responsibility and risks which should be faced become their main references. They also learn about sex from the internet. As a result, teenagers, who were shy a few generations ago, now have sex at young age, between 10-19 years old [4].

Changing times also influences sexual behaviors in teenage dating. This can be seen in things considered taboos by teenagers in the past, such as kissing and making out, are considered commonplace by today's teenagers. A small part of them approve free sex. This condition is quite worrying considering the behavior may cause unwanted pregnancies which will then trigger unsafe

abortions, STD and HIV/AIDS transmission, even death old [5]. Based on World Population Situation Report 2012 released by the United Nations (PBB) (*United Nations Population Fund/UNFPA*) it's projected that in 2012 there were 80 millions unwanted pregnancy.

An Indonesian Demographic and Health (SDKI) in 2012 proved that age specific fertility rate (ASFR) in 15-19 age group was 48 of 1.000 pregnancies [6]. The fact is a big concern to the National Population and Family Planning Board (BKKBN). The fact is each year the number of unwanted pregnancies in teenagers increase. This is likely due to unhealthy sexual behaviors among teenagers. In Indonesia, based on a survey by FEUI Demographic institution in 33 provinces in 2008, 63% Indonesian junior high school (SMP) age and high school (SMA) age teenagers had premarital sex. According to data of Indonesian Family Planning Association (PKBI) of Central Java in 2010 on reproductive health showed the number of teenagers who had premarital sex and unwed pregnancies was still high. According to PKBI's data, there were 130 cases of premarital sex and 84 cases of unwed pregnancy in 2008, and 47 cases of premarital sex and 106 cases of unwed pregnancy in 2009. In 2010 cases of premarital sex increased again to 98 cases, and cases of unwanted pregnancy from January to December 2010 reached 85 cases. 51,4% of teenagers who had unwanted pregnancies, according to PKBI's, were 10-19 years old population [5].

National statistic from National Population and Family Planning Board (BKKBN) in 2010 showed that some regions in Indonesia, particularly Yogyakarta, 37% of 1.160 teenagers got married due unwanted pregnancies. In Special Region of Yogyakarta province there are incidences of unwanted pregnancy, including in Sleman Regency. Sleman Regency has a high number until 2012, based on data from Office of Religious Affairs (KUA) of Sleman Regency, where 103 of 473 couples who married at a young age had unwanted pregnancies. Preliminary study collected data from Office of Religious Affairs (KUA) of Sleman Regency showing that of 17 sub-districts, 15 sub-districts had high incidences of unwanted pregnancy.

### **Formulation of the problem**

Is there any difference between unwanted pregnancy incidences in urban area and rural area based on characteristics of teenagers in Sleman Regency, Special Region of Yogyakarta?

### **Research purposes**

#### **A. General Purpose**

To discover the difference between unwanted pregnancy incidences in urban area and rural area

based on characteristics of teenagers in Sleman Regency, Special Region of Yogyakarta.

**B. Special Purposes**

1. To discover unwanted pregnancy incidences in Sleman Regency, Special Region of Yogyakarta.
2. To discover unwanted pregnancy incidences based on age of teenagers in Sleman Regency, Special Region of Yogyakarta.
3. To discover unwanted pregnancy incidences based on education of teenagers in Sleman Regency, Special Region of Yogyakarta.

**Materials and methods**

The type of this study was analytic observational using retrospective approach. The population in this study was all married teenagers in Sleman Regency, totaling in 472. The sampling technique was total sampling.

**Results and Discussion**

**Table1. Characteristics of respondents of unwanted pregnancies in teenagers in Sleman Regency.**

Characteristics	n	%	Characteristics	n	%
Age			Education		
14	9	1.9	Low school	41	8.7
15	12	2.5	Moderate school	191	40.5
16	49	10.4	high school	238	50.4
17	95	20.1	Degree	2	0.4
18	135	28.6	Occupation		
19	171	36.2	Labor	27	5.7
20	1	0.2	Merchants	2	0.4
Private employees	232	49.2	Farmer	4	0.8
Not Jobs	207	43.9			

Source : Secondary Data, 2013

Based on Table1 above, it's discovered that characteristics of respondents by age were 19 years old with 171 respondents(36.2%) and 19 years old with 1 respondent(0.2%). Characteristics of respondents by education were high school education with 238 respondents(50.4%) associate's degree with 2 respondents(0.4%). Characteristics of respondents by private employees with 232 respondents (49.2%) and merchants with 2 respondents (0.4%)

**Table 2. Unwanted pregnancy incidences in Sleman Regency by teenagers' age**

	Age							p-value	$(\chi^2)$	df	CC
	14	15	16	17	18	19	20				
Pregnant	8	10	23	24	25	15	-	0.00	86.089	6	0.393
Not Pregnant	1	2	26	71	110	156	1				

Source : Secondary Data, 2013

Table 2 above shows statistic test with Chi Square test to discover the relation between both variables produces a value of 86.089 at df=6 with significance level (p) 0,00. To discover any relation between both variables, significance level (p) is compared with error level 5% (0,05). If p is bigger than 0,05, there is no relation between both variables and if p is smaller than 0,05, then there is relation between both variables. The research result shows p smaller than 0,05 ( $0,01 < 0,05$ ), thus there was a relation between both variables.

Adolescence is a transitional period characterized by physical, emotional, and psychological changes at 10-19 years of age [4]. That period is special and important because it's a period of maturity of reproductive organs, or also known as puberty. During puberty they're curious to try new things, getting to know natures and characters of the opposite sex, dating and having sex with close friends [7].

This result was also consistent with a theory that adolescence influences physical maturity, social and psychological maturity which can influence one's behaviors friends [8]. The influence of age on thinking ability is consistent with Hurlock's (2008) statement that one's knowledge level peaks at a certain age (adolescence), so thinking ability will decline over time [9].

To discover the strength of relation between both variables, the value of Contingency

Coefficient (C) count was compared with table of coefficient correlation interpretation. The comparison showed Contingency Coefficient (C) value of 0.393 which is between 0,200-0,399, meaning there is low relation between both variables. Therefore, the result of this study showed a low relation between age and unwanted pregnancy incidences in Sleman Regency, Yogyakarta

In various studies, age is one of the factors which may influence one’s behaviors, including health behaviors. Duncan et al (2000) state that in adolescence phase and certain age pattern, teenagers tend to have unstable attitudes and behaviors. Teenagers will try anything to satisfy their curiosity on many things, without thinking about the risks they will face although the teenagers know that those behaviors are deviations time [10].

Piaget’s theory of development emphasizes that teenagers adjust their minds by inserting new ideas, because additional information will produce understanding [11]. Piaget’s cognitive theory also believes that in understanding the world, everyone go through several stages of development. Every stage is related to a certain age and consists of different way of thinking. In terms of development of teenagers, younger teenagers don’t have less accurate knowledge on various health topics than older teenagers. This makes teenagers try risky behaviors at a young age. Meanwhile, as they develop, older teenagers are expected to have better understanding on healthy and positive behaviors than younger teenagers.

**Table 3. Unwanted pregnancy incidences in Sleman Regency by teenagers’ education**

	Education				p-value	$(\chi^2)$ Hitung	df	CC
	low	Moderate	High	Degree				
Pregnant	13	54	37	1	0.00	13.199	3	0.165
Not Pregnant	28	137	201	1				

Source : Secondary Data, 2013

Table 3 above shows that to discover relation between both variables, Chi square test was performed, producing a value of 13.199 at df=3 with significance level (p) 0,004. To discover relation between both variables, significance level (p) is compared with error level 5% (0,05). If p is bigger than 0,05 there is no relation between both variables and if p is smaller than 0.05, then there is relation between both variables. The research result shows p smaller than 0.05 (0,01 < 0,05), thus there was a relation between both variables.

The role of teenagers' education was very significant. Teenagers who dropped out of schools at school age then work. These teenagers then felt independent, able to support themselves. The same thing happened if the teenagers who dropped out of schools were unemployed. Without work to fill their time, they did unproductive activities, including dating, which if unchecked might lead to unwed pregnancies [12]. Upper middle education is a rather significant factor in forming knowledge level because it influences one's ability to absorb information.

To discover the strength of relation between both variables, the value of Contingency Coefficient (C) count was compared with table of coefficient correlation interpretation. The comparison showed Contingency Coefficient (C) value of 0.165 which is between 0,000-0,199, meaning there was a very low relation between both variables. Therefore, the result of this study showed that there was a very low relation between education and unwanted pregnancy incidences in Sleman Regency, Yogyakarta. Studies consistently show that the highest education level is related to knowledge and behaviors related to teenage pregnancy. Higher education level is related lower possibility of getting married at a young age [6,13].

Education influences one's knowledge level because the person will receive new information. This assumption states that teenagers with higher education level have more rational thinking pattern, obey rules, and more discipline as well as able to separate good and bad.

Meanwhile, Ahmed, Creanga, Gillespie and Tsui (2010) state that lack of knowledge may decrease awareness of life-threatening complications, which in turn reduces needs to look for help to prevent risks related to healthcare and ability to handle health problems [16]. This happens because lack of knowledge reduces opportunity to develop verbal and social skills to solve conflicts, which happen early in marriages. Couples with low education level also have lower satisfaction because they face more stressors such as unemployment and low income level [14]

Table 4 above shows that to discover relation between both variables, Chi square test was performed, producing a value of 19.800 at  $df=4$  with significance level (p) 0,001. To discover relation between both variables, significance level (p) is compared with error level 5% (0,05). If p is bigger than 0,05 there is no relation between both variables and if p is smaller than 0,05, then there is relation between both variables. The research result shows p smaller than 0,05 ( $0,01 < 0,05$ ), thus there was a relation between both variables.

**Table 4. Unwanted pregnancy incidences in Sleman Regency by teenagers' occupation.**

	Education					p-value	$(\chi^2)$ Hitung	df	CC
	Labor	Merchants	Farmer	Private employees	Not Jobs				
Pregnant	2	-	-	38	65	0.001	19.800	4	0.201
Not Pregnant	25	2	4	194	142				

Source : Secondary Data, 2013

Occupation in general means main activities performed by people. Specifically, occupation is a task or work with produces money for someone to meet economic, psychological, and biological needs [15]. To discover the strength of relation between both variables, the value of Contingency Coefficient (C) count was compared with table of coefficient correlation interpretation. The comparison showed Contingency Coefficient (C) value of 0.201 which is between 0,200-0,399, meaning there was a low relation between both variables. Therefore, the result of this study showed that there was a low relation between occupation and unwanted pregnancy incidences Sleman Regency, Yogyakarta.

Teenagers, particularly girls, have smaller opportunity to be employed, which influences their decision to delay marriage. Many teenagers think that if they get married at a young age, they don't have to work or won't have financial problem because their husbands will support them [14].

**Table 5. Unwanted pregnancy incidences in Sleman Regency**

	Pregnant		Not pregnant		p-value	$(\chi^2)$ count	OR	CI 95%
	n	%	n	%				
<b>Urban</b>	28	31.1	62	68.9	0.034	5.503	1.789	1.073-2.983
<b>Rural</b>	77	20.2	305	79.8				

Source : Secondary Data, 2013

Statistical calculation using Chi Square test in table 4.5 on teenage pregnancy incidences produces  $\chi^2$  count = 5.503 and p value of 0.034. It could be concluded that there was a significant influence of living environment on unwanted pregnancy incidences in Sleman Regency, Yogyakarta.

The analysis was continued by assessing living environment risk factor of teen pregnancy by



looking for Odds Ratio(OR) at error level 5%. The value of OR= 1.789. It was concluded that living environment is a risk factor of teen pregnancy in SlemanRegency, Yogyakarta, risking1.789times teen pregnancy.Marriages and pregnancies happened in rural areamore often. In several regions, parents strongly influence their children's marriages, especially their daughters. The reason of early-age marriages is promiscuity, such as unwed pregnancies, and economic reasons. Teenagers who get married at an early age aren't mature enough physically and biologically to have children, so they're vulnerable to child and maternal mortalities during deliveries. Pregnant women under 20 years old often experience malnutrition and anemia due to unequal food distribution between fetuses and mothers who are still growing.

In urban area, teenagers' access to information on reproductive health from various media was easier than in rural areas. However, varying media doesn't always have positive impact. Another difference was intensity of communication among family members in both areas. Intensity of communication among family members in urban areas is lower than in rural areas. This condition influence levels of understanding, attitude, and eventually behavioral changes, specifically unwanted pregnancies.

### **Conclusion**

- a. Unwanted pregnancy incidences in = Sleman Regency, Special Region of Yogyakarta mostly happen in urban area (31.1%).  $\chi^2$  count = 5.503 and p value of 0.034. The value of OR= 1.789. Living environment is a risk factor of teen pregnancy in SlemanRegency, Yogyakarta, risking1.789times teen pregnancy.
- b. Unwanted pregnancy incidences by age in Sleman Regency, Special Region of Yogyakarta showed that it mostly happened to 18 years old female teenagers (23.8%). There was a low relation between both variables with a value of 86.089 and  $\alpha$  0.05 at df=6 with significance level (p) 0,00 and Contingency Coefficient (C) value of 0.393.
- c. Unwanted pregnancy incidences by teenagers' education in Sleman Regency, Special Region of Yogyakarta showed that it mostly happened to female teenagers with junior high school education (51.4%). There was a low relation between both variables with a value of 13.199 at df=3 with significance level (p) 0,004. Contingency Coefficient (C) value is 0.16.
- d. Unwanted pregnancy incidences by teenagers' occupation adolescent in Sleman Regency,

- e. Special Region of Yogyakarta showed that it mostly happened to unemployed female teenagers (61.9%). There was a low relation between both variables with a value of  $\chi^2 = 19.800$  at  $df = 4$  with significance level ( $p$ ) 0,001. The value of Contingency Coefficient ( $C$ ) is 0.20.

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