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## Determinants Associated with Syphilis among the Youth in Health Centre Wamena City, Jayawijaya Regency

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### Abstract

Sexually transmitted infections (STI) cases in province of Papua in 2013 were 1,213 cases, then in 2014 the number of visits to STI services were 19 945 cases with the number of STI patients of 10,995 cases and the number of syphilis patients was 2,150 cases, while cases of syphilis in adolescent at the health center Wamena City District Jayawijaya in 2015 were 91 cases. The method used in this research is quantitative correlation type with cross sectional study. The population in this study was all teenagers who visited the health center Jayawijaya Wamena town, with 578 teenagers. The sampling technique used was purposive sampling, obtained a sample of 236 respondents. The data collection is done by distributing questionnaires to the respondents. Analysis of the data in this study is analysis of univariate and bivariate. The results showed a correlation between free association with syphilis in adolescence (p-value = 0.000), there is a relationship between the use of condoms with syphilis in adolescence (p-value = 0.000), there is no relationship between early sex education with disease syphilis in adolescence (p-value = 0.151), there is no relationship between the supervision of parents with syphilis in adolescence (p-value = 0.265), there is a relationship between personal hygiene with syphilis in adolescence (p-value = 0.001 ), there is no relationship between the mass media with syphilis in adolescence (p-value = 0.569).

**Keywords:** Syphilis; Teen; Determinant Factors.

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## **1. Introduction**

Adolescence is a period in human life which is defined as 10-19 years of age, and demographic groups of teenagers were divided into age groups 10-14 years and 15-19 years age group [1]. While Act 23 of 2002 on Child Protection classify anyone aged up to 18 years old as a 'child', so based on this Act mostly teenagers included in the group of children. Teens currently experiencing vulnerability to various threats, especially the health risks associated with sexual and reproductive health. The threat can be seen to this day is premarital sexual, Early pregnancy, abortion, sexually transmitted infections, HIV / AIDS, and sexual violence. Lack of knowledge about reproductive health and a strong social support on adolescent premarital sexual relations make the population that is at risk because in the present alarming teenage promiscuity [2].

Free sex is sexual behavior carried out without due process of formal marriage according to the law and according to the religion and beliefs of each individual. Very free association makes teenagers fall on sex behavior. Sexually Transmitted Infections (STIs) are most frequent diseases of all infections. Venereal disease is a phenomenon that has long been known to us and some of them are very popular such as syphilis, gonorrhoea and herpes. The rapid advancement of science, found that the disease is not only causing clinical symptoms in the genitals, but also may cause interference to other body organs [1].

The number of events in the world selected for sexually transmitted diseases for the WHO regional incidence in parts of Southeast Asia in the form of number of new cases of three sexually transmitted infections in 2008 is estimated 785.000000: 7.2 million cases of *C. Trachomatis*, *N.gonorrhoeae* 25.4 million cases, 3.0 million, the case of *T. vaginalis*. As for its prevalence at any point in the period of 2008 estimated that 8.0 million adults infected with *C. Trachomatis*, 9.3 million with *Gonorrhoeae N.*, 12, 3 million.

Data cases of sexually transmitted infections (STIs) in the province of Papua by 2012 were 7498 cases, and in 2013 was significantly into 9385, then in 2014 the higher number of cases of STIs are 10,995 cases, and in 2015 increased to 10 996 cases. Based on data obtained STI cases are things that need to be seen and to be taken seriously, because the number of cases per year is very varied, the increase is significant enough to IMS data every year running. According to SSR Jayawijaya achievements of the year 6575 2010- 2013 STI cases, and in 2014 as many as 3,075 cases of STI services.

IMS is a disease arising from or transmitted through sexual intercourse with the clinical manifestations of the emergence of abnormalities, especially on the genitals. The failure of early detection can lead to various complications eg ectopic pregnancy, anogenital cancer until early syphilis, when it's not in a good look at it would be difficult to control the disease [3]. STI cases are tied to syphilis. Cases of syphilis were recorded in the WHO shows that there are as many as 3.0 million cases of syphilis cases, while ntuk pravelensinya at any point in the period of 2008 estimated 12.3 million with syphilis (WHO, 2008). The case of Syphilis in Indonesia based IBBS report noted that there are nearly 44% of cases of syphilis in the community in Indonesia.

Data cases of syphilis in the province of Papua by 2012 with 713 cases, and in 2013 was significantly increased

to 1210, then in 2014 the higher number of cases of syphilis were 961 cases, and then in 2015 increased to 1,034 cases [4, 5]. Based on the achievements of SSR Jayawijaya In 2010- 2013 which in 6192 syphilis test, a positive syphilis cases reached 1,560. In 2014, who tested positive for syphilis and 2552 is 508. As for the health center there are 440 cases, Wamena town in 2015 with 91 cases were recorded in health centers Wamena town, Jayawijaya. Keep in mind that one of the biggest triggers of HIV / AIDS in the community, especially the youth group is a disease IMS specifications are syphilis. For some time, syphilis has been out of sight, mind and memory, but the incidence in the western world that is constantly evolving lay community has risen and could once again become a major health problem. These changes have followed the rapidly increasing number of human immunodeficiency virus (HIV) positive.

Syphilis is a sexually transmitted disease (STD). Syphilis or gonorrhea is a sexually transmitted disease that is very dangerous if not treated. The disease is caused by the bacterium *Treponema pallidum*. These bacteria enter the human body through mucous membranes such as the mucous membranes of the vagina, mouth or skin contact. Transmission of syphilis is usually through sexual contact, but there are several other examples such as transmission through mother to child in utero.

The data obtained from the Department of Health researchers Jayawijaya until December 31, 2014 there were 2,210 total cases with details of 1,769 cases of HIV and AIDS cases were 491 cases, and who had died were 10 cases (DHO Jayawijaya, 2014). While data of HIV / AIDS by 2015 to March 2016 there were 4,906 cases [5]

## **2. Materials and Methods**

This research is a quantitative correlation type with cross sectional study. The location used for the research was conducted at the health center Wamena, Jayawijaya. The study lasted 4 (three) months, namely from June to August 2015. The population in this study was all teenagers who visited the health center of Wamena, Jayawijaya, with 578 teenagers. Based on the formula Setiadi [6], it is obtained a sample of 236 respondents. The sampling technique used was purposive sampling, that the sampling is based on the consideration of the researchers themselves [7].

The data collection is done by distributing questionnaires to the respondents. The data have been collected and processed (editing, coding, entry and tabulating data).

The analysis used in this study were univariate and bivariate. Univariate analysis (percentage analysis) that the analysis used to get an overview of the distribution of the respondent and describe the independent variables and the dependent variable. Analysis bivariate analysis was conducted to determine a significant relationship between independent and dependent variables using Chi-square test. Basis for a decision accepting the hypothesis based on a significant level ( $\alpha$  value) of 0.05:

1. If  $\text{sig } p < 0.05$  then the research hypothesis is accepted.
2. If  $\text{sig } p > 0.05$  then the research hypothesis is rejected [8,9]

### **3. Results and Discussion**

1. The relationship between free association with Syphilis Disease in Young Age Statistical test results obtained p-value of 0.000, therefore p-value  $<0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is a relationship between free association with syphilis in adolescence at the health center Jayawijaya Wamena, while the relations is positive (positive correlation value).
2. The relationship between the use of condoms with Syphilis Disease in Young Age Statistical test results obtained p-value of 0.000, therefore p-value  $<0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is a relationship between the use of condoms with syphilis in adolescence at the health center Jayawijaya Wamena, while the relations is positive (positive correlation value).
3. The relationship between the Sex Education with Early Syphilis Disease in Young Age.

Statistical test results obtained p-value of 0.156, therefore p-value  $> 0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is no relationship between early sex education with syphilis in adolescence at the health center Jayawijaya Wamena. This is because generally happens in the middle of the community to discuss sex or sex talk between parents and children is still a taboo and is rarely done by the family. This is why early sex education does not have a relationship with syphilis disease in adolescents, since most adolescents in Puskesmas Wamena Kota had not received early sex from parents or from school.

4. Relationship between Parental Control with Syphilis Disease in Young Age Statistical test results obtained p-value of 0.265, therefore p-value  $> 0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is no relationship between the supervision of parents with syphilis in adolescence at the health center Jayawijaya Wamena. This is due that have been mainly parents lack control, with good to their children, children left their teens to hang out with everyone, so that the relationship between parental control with incidence of syphilis among adolescents has been no correlation.
5. Relationship between the Personal Hygiene Disease Syphilis at Young Age Statistical test results obtained p-value of 0.001, therefore p-value  $<0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is a relationship between personal hygiene with syphilis in adolescence at the health center Jayawijaya Wamena, while the relations is positive (positive correlation value).
6. The relationship between the mass media with the disease Syphilis at Young Age Statistical test results obtained p-value of 0.569, therefore p-value  $> 0.05$  then  $H_0$  is rejected and  $H_1$  accepted, meaning that there is no relationship between the mass media with syphilis in adolescence at the health center Jayawijaya Wamena. This is because access to the mass media (print and electronic / internet) is still difficult mountainous region, access the Internet using HP have not smoothly so that teens can not access the mass media as easily as in the city of Jayapura. This is why adolescents in Puskesmas Wamena not feel the relationship between the mass media with the incidence of syphilis [10, 11, 12].

#### 4. Conclusion

1. Terdapat hubungan antara pergaulan bebas dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,000 ( $< 0,05$ ).
2. Terdapat hubungan antara penggunaan kondom dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,000 ( $< 0,05$ ).
3. Tidak terdapat hubungan antara pendidikan seks dini dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,151 ( $> 0,05$ ).
4. Tidak terdapat hubungan antara pengawasan orang tua dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,265 ( $> 0,05$ ).
5. Terdapat hubungan antara kebersihan perorangan dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,001 ( $< 0,05$ ).
6. Tidak terdapat hubungan antara media massa dengan penyakit sifilis pada usia remaja, dengan nilai *p-value* sebesar 0,569 ( $> 0,05$ ).

1. There is a relationship between free sex with syphilis among adolescence, with a p-value of 0.000 ( $<0.05$ ).
2. There is a relationship between the use of condoms with syphilis among adolescence, with a p-value of 0.000 ( $<0.05$ ).
3. There is no relationship between early sex education with syphilis among adolescence, with a p-value of 0.151 ( $> 0.05$ ).
4. There is no relationship between the supervision of parents with syphilis among adolescence, with a p-value of 0.265 ( $> 0.05$ ).
5. There is a relationship between personal hygiene with syphilis among adolescence, with a p-value of 0.001 ( $<0.05$ ).
6. There is no relationship between the mass media with syphilis among adolescence, with a p-value of 0.569 ( $> 0.05$ ).

**Conflict of Interest:** Authors declare no conflict of interest within this research

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