

**Risk Factors for Sexually Transmitted Disease and HIV/AIDS towards Males  
Sex Males in Gorontalo City**

<sup>1</sup>. Irwan

<sup>1</sup>[irwandel@yahoo.com](mailto:irwandel@yahoo.com)

<sup>1</sup>. Department of Public Health, Universitas Negeri Gorontalo,  
Gorontalo, Indonesia

**ABSTRACT**

Sexually transmitted diseases (henceforth called STD) are infections that are passed through sexual contact, i.e., vaginal, anal, and oral intercourse. The purpose of this research is to analyze contributing factors of the transmission of HIV/AIDS in the behavior of males sex males.

This observational analytic research employed the *cross-sectional study* approach. It involved 148 males who have sex with males; 30 of them were selected as the sample. The data were analyzed by using *Kolmogorov Smirnov* and *Fisher Exact* method.

A number of studies focusing on males who have sex with males in areas with a low number of HIV case, i.e., in Gorontalo, are limited; most research examines the risk of STD or HIV/AIDS in a prostitution case. The result shows that maintaining reproductive organs by males sex males does not significantly influence the risk of being infected with STD and HIV/AIDS ( $P=0.586$ ). This is different from the variable of sexual behavior and understanding of the risk of the transmission of the disease. Such factors significantly contribute to the risk of STD with the p-value  $p=0.005$  and  $P=0.007$  respectively.

Keywords: Males Sex Males, Reproductive Health

## 1.

### Introduction

There has been an increase in the transmission of STD and HIV/AIDS in some non-epidemic areas. Homosexual, shemale and lesbians are prone to STD. The data by the Office of Health Affairs of Gorontalo City reports that there are 350 people with such sexual orientation in the province of Gorontalo. Some of them do not hesitate to admit their sexual orientation (coming out) while the others prefer to hide their orientation (hidden)(1).

People who have such sexual orientation, specifically males who have sex with males, are prone to STD and HIV/AIDS since they have sex through anal intercourse. Men who act as the receptor (henceforth called receptive) have a higher chance of being infected rather than insertive men(2). This is because the sensitivity of anus; such an organ is not designed as a sexual organ by which damages are inevitable during sexual or anal intercourse. The data

by the ministry of health affairs, 2015, report that 73% of men practice anal intercourse in a year; they have sex once in a week. This also goes to men who also have sex with both men and women known as bisexual (10%). Furthermore, the data also show that prostitution case in one year is dominated by shemales (26%) and people addicted to drugs (19%). The highest and lowest ratio of men who have sex with men is 19% and 6% respectively. The sexual behavior data reveal that 19% of people addicted to drugs and 81% of shemales have sex with males. Among 49% of men who have sex with men, 79% only have men as their sex partner, 4% with women, and 17% is dominated by bisex(3).

Furthermore, it is shown that STD and HIV/AIDS are common to men who have sex with men in productive ages, i.e., 20 - 24 years. It is concluded that homosexual behavior has been committed starting from age under 20. Men of such ages are well-known as *brondongmanisor*

young men. Such a phenomenon has been the foremost concern of the prevention of STD and HIV/AIDS for people who are prone to such diseases in Gorontalo City. The purpose of this research is to analyze contributing factors of the transmission of HIV/AIDS in the behavior of males sex males.

## 2. Research Methodology

This quantitative research employed analytical observation and cross-sectional approach. This approach examines the dynamics between risk factors and its effects through observation, interview, and data collection; all of these processes were conducted at the same time(4).

### 2.1 Variable of Research

The variable of research consists of two, i.e., independent (knowledge on health reproductive, reproduction organ care, and risky sexual behavior) and dependent (STD transmission) variable.

### 2.2 Research Sample

The sample involved 30 men with homosexual and bisexual orientation. Furthermore, the men

should be able to read and write as they will fill out questionnaires.

## 3. Results

### Univariate Analysis

The overall description of the respondents of the research based on their age is explained in the table as follows. Based on the table, men ages 20-24 years, consisting of 10 men (33.3%) dominate the overall sample of research.

#### a) Respondents who have Been Gay for Certain Period

The data of the duration of the respondents of having been a gay are in the table as follows. The above table signifies that most of the respondents have been gay since age 6-10 years (56.7%). Only a few of them have been gay since they are under 5 age (26.7%).

#### b) Education Level of Respondents

Most of the respondents are senior high graduates (56.7%) while few of them have a higher education level (36.7%) as depicted in the table as follows.

**c) Respondents' Occupation**

Most of the respondents are entrepreneurs or working in private sectors (56.7%) while few of them are students (13.3%) as depicted in the table as follows.

**b) Level of Insight of Respondents**

All the respondents are basically well-informed of their reproductive health (56.7%); this is illustrated in the following table.

**e) Reproductive Health Care**

The above table shows that only 2 respondents that do not care about their reproductive system (6.70%). On the other hand, 7 respondents concern their reproductive system with the percentage 23.30% while the remaining 21 respondents are well-informed of the health of their reproductive system with the percentage 70.00%.

**f) Risky Sexual Behavior**

The data on risky sexual behavior of the respondents are in the table as follows.

The above table shows that only 11 respondents practice safe sex

(36.70%). However, the remaining 19 respondents do not concern with safe sex with the percentage 63.30%.

**g) STD Examination of the Respondents**

The overall description of the STD examination of the respondents is explained in the table as follows.

The above table shows that only 10 respondents who have performed medical check (33.30%). However, 20 respondents have not performed medical checkup (66.7%).

**Bivariate Analysis**

**a) The interrelation between the Insight on Reproductive Health of Men who have Sex with Men and the Transmission of STD**

The result of *Fisher Exact* test in identifying interrelation between the insight on the reproductive health of men who have sex with men and the transmission of STD is depicted in the following table; the test was performed by using SPSS 21.

The table shows that 5 respondents (11.8%) do not perform medical checkup and they lack the

insight of reproductive health. It is revealed that the probability value is 0.007. This value is smaller than the *alpha* value (0.05) indicating that  $H_0$  is rejected. It signifies that the degree of significance reaches 95%, meaning that the insight on reproductive health significantly contributes to the transmission of STD.

## **b) The Interrelation between Reproductive Health Care of Men who have Sex with Men and the Transmission of STD**

The result of *Kolmogorov Smirnov* test in identifying interrelation between the reproductive health care of men who have sex with men and the transmission of STD is depicted in the following table; the test was performed by using SPSS 21.

The table shows that 9 respondents (42.9%) who perform medical checkup are well-informed of their reproductive health care. The result obtains that the probability value is at 0.586. This value outnumbers *alpha* value (0.05)

indicating that  $H_0$  is accepted. It signifies that the degree of significance reaches 95%, meaning that the reproductive health care does not contribute to the transmission of STD.

## **c) The Interrelation between Risky Sexual Behavior of Men who have Sex with Men and the Transmission of STD**

The result of *Fisher Exact* test in identifying interrelation between risky sexual behavior of men who have sex with men and the transmission of STD is depicted in the following table; the test was performed by using SPSS 21.

The table shows that 17 respondents (85%) do not perform medical checkup while the rest 3 respondents are the opposite. Furthermore, these respondents associate with risky sexual behavior. The result obtains that the probability value is at 0.005. The p-Value is smaller than the *alpha* value (0.05) indicating that  $H_0$  is accepted. It signifies that the degree of significance reaches 95%, meaning that risky sexual behavior

significantly contributes to the transmission of STD.

#### 4. Discussion

##### a) The interrelation between the Insight on Reproductive Health and the Transmission of STD

The result of the statistical analysis shows that the insight on reproductive health contributes to the transmission of STD. This is because experience functions to enrich one's knowledge on a particular matter. A person's age also influences the perspective and the way someone perceives. The older a person, the more developed his or her mindset by which enhances the way he or she gains knowledge. The result shows that the respondents whose age 24 - 24 years dominate the overall participant (10 people or 33.3%).

Knowledge aspect significantly contributes to one's behavior as it drives people to act positively or negatively. Having sufficient insight regarding raises the awareness to prevent the infection of such diseases. This is based on the result of research that knowledge

plays a major factor in the transmission of STD. It resonates the result seen in Fatimah as well. This study assumes that having an adequate understanding of STD does not immediately raise the awareness of the respondents regarding the dangers of the disease and prevent transmission of STD. This blames two factors, i.e., internal (education and age) and external (environment and socio-culture). In addition, the knowledge of an individual can change and develop according to people's ability, needs, experience and the ease of accessing the information in their environment(5).

The level of education is in line with knowledge. In terms of the cognitive domain, knowledge comprises four stages, i.e., knowing, understanding, applying, analyzing, synthesizing, and evaluating (6). This theory asserts that having a quality education does not ensure the way homosexual men understand and apply the insight they have learned. If the level of knowledge is limited to knowing, homosexual men

will perform risky behavior despite understanding the impact it caused.

The application of good reproductive health knowledge will form the basis of healthy sexual behavior in order to reduce the prevalence of STD(7). It also provides information on reproductive health to homosexual men groups. Knowledge of reproductive and sexual health that is not maximal only leads to misperception(8), such as the fact that oral sex cannot transmit STD.

### **b) The Interrelation between Reproductive Health Care of Men who have Sex with Men and the Transmission of STD**

The result of statistical analysis shows that reproductive health care does not contribute to the transmission of STD to gay men ( $p=0.586$ ). People with poor reproductive health care are 2.5 times more likely to be infected with STD.

This is echoing the results seen in Lestari (2006) that poor management of the reproductive

health of street children contributes to the issue of STD. Reproductive health care plays a major role in preventing STD; this can be done by, for example, paying attention to the hygiene of reproduction organ(9).

### **c) The Interrelation between Risky Sexual Behavior and the Transmission of STD**

The result of the statistical analysis shows that risky sexual behavior contributes to the transmission of STD ( $p=0.05$ ). Sexual behavior of the respondents causes many STD, e.g., HIV, AIDS, syphilis, and many others. Men who have sex with men are the ones who are prone to such diseases.

The result shows that the respondents who perform medical check are only 33.3% of all participants. It is assumed that some of the respondents do not answer the questionnaire truthfully by which forgery is inevitable. With that being said, the lab check and other medical information should be performed for the respondents.

Research by Ratnawati (2002) and Hartono (2009) reports that oral and anal intercourse is among the examples of risky sexual behavior. Using condoms consistently is essential to prevent STD(8). However, homosexual men often ignore safe sex. According to Maurice Kwong-Lai et al. (2011), 43% of gay men do not use condom during sexual intercourse. It is because of the assumption of the men that they have performed safe sex.

Dailiet al. (2003 as cited in Hernawati, 2005) put risky sexual behavior on the top of the most common cause of STD transmission since more than 5 couples do not use condoms(10).

Difficulty in diagnosing STD obstructs the efforts in preventing the diseases. The symptoms might have been undetected; even the person has been infected. Around 80-90% of STD patients do not realize that the symptoms of the diseases.

## 5. Conclusion and Recommendations

The result shows that there is a significant correlation between 1) insight on reproductive health and the transmission of STD, and 2) risky sexual behavior and transmission of STD. On the other hand, reproductive health care does not affect the transmission of STD. With that being said, the government and health officials should perform monthly screening for men who have sex with men to check their condition.

## REFERENCES

1. Dinas Kesehatan Provinsi Gorontalo. Laporan Infeksi Menular Seksual Tahun 2017 Bulan Januari Sampai Desember 2017[Report on Sexually Transmitted Infections in January to December 2017]. 2017.
2. Rama, A dan Putra K. Membongkar Rahasia Jaringan Cinta Terlarang Kaum Homoseksual[Dismantling the Secrets of the Forbidden



- Homosexual Love Network]. Jakarta: Hujjah Press. 2008;
3. WHO. Factsheet of Sexually Transmitted Infections (STI's).  
[http://www.who.int/reproductivehealth/publications/rtis/rhr13\\_02/en/](http://www.who.int/reproductivehealth/publications/rtis/rhr13_02/en/). 2013;
4. Notoatmodjo. Metodologi Penelitian Kesehatan[Research on Health: A Methodology]. Jakarta: Rineka Cipta. 2010.
5. Irwan. Etika dan Perilaku Kesehatan[Ethics and Health Behavior]. Yogyakarta: CV. Absolute Media. 2017.
6. Notoatmodjo. Pendidikan dan Perilaku Kesehatan[Education and Health Behavior]. Jakarta: Rineka Cipta. 2005;
7. Kalina O et. al. Psychological and Behavioural Factors Associated with Sexual Risk Behaviour Among Slovak Students. BMC Public Health Journal. Vol. 9. No 15. 2009;
8. Hartanto D. Aku Memang Gay[Idam Gay]. Skripsi. Yogyakarta : Fakultas Ilmu Pendidikan UNY. 2006.
9. Lestari D. Pengetahuan Kesehatan Reproduksi dan Perilaku Pemeliharaan Organ Reproduksi Remaja Jalanan MitraPKBI Yogyakarta[Reproductive Health Knowledge and Maintenance Behavior of Reproductive Organs of Youth at Jalanan Mitra PKBI Yogyakarta]. Skripsi. Fakultas Kes. 2006;
10. Endang, P dan Elisabeth SW. Panduan Materi Kesehatan Reproduksi dan Keluarga Berencana[Guidelines on Reproductive Health and Family Planning]. Yogyakarta: Pustaka Baru Press. 2015;