ANALYSIS OF RISK SEXUAL BEHAVIOR FACTORS ON HIV INCIDENCE IN MALE SEX (MSM)

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Abstract. Risk sexual behavior in men who have sex with men (MSM) is one of the highest risk factors for HIV transmission. The prevalence of HIV among MSM has tripled from 5.3% in 2007 to 17.9% in 2019. This study aims to analyze the relationship of risk sexual behavior to the incidence of HIV in Male Sex Men. This study is a quantitative study using an analytic case control with a total sample of 26 MSM people with HIV positive and 26 people MSM with HIV negative. The sample selection technique in this study used consecutive sampling and data analysis was carried out using chi square and fisher's exact. From the results of bivariate analysis, the characteristics of the respondents, except for marital status (p value 0.002), did not have a statistically significant relationship with the incidence of HIV. There is a relationship between the consistency of condom use and the incidence of HIV, p value (0.001) <0.05. There is a relationship between multiple partners with the incidence of HIV p value (0.049) <0.05. There is no relationship between anal sex and the incidence of HIV p value (0.404). There is no relationship between oral sex and the incidence of HIV p-value (0.463) <0.05. Risk sexual behavior factors related to the incidence of HIV in MSM are the consistency of condom use and multiple partners.

Key words: [MSM, HIV, risk sexual behavior.]

INTRODUCTION

HIV (Human Immunodeficiency Virus) is a virus that infects white blood cells which causes a decrease in human immunity (Ministry of Health RI, 2020). The virus enters the human body mainly through blood, semen and vaginal secretions. Most (75%) of transmission occurs through sexual activity (Noviana, 2019). Risky sexual activity is a contributing factor to the high transmission of HIV, whether it is done with heterosexual or homosexual partners (Budiati, 2017). In general, the number of reported HIV cases tends to be more among men than women. This is evidenced by the proportion of HIV positive cases in men, 67%, while women are 33% (Ministry of Health, 2020). In the coming year it is projected that the largest number of new HIV infections will occur in men who have sex with men (MSM) (Peeratanapokin et al., 2019). This is because most MSM have sex through anal. Meanwhile, sexual activities, especially those related to vaginal and anal sex, which are carried out by individuals with their sex partners are risky sexual behavior (Asrina, 2020). The risky sexual behavior of MSM who have sex through the anus (anus) is the main route for the entry of the HIV virus, because the anus is not designed for sexual intercourse so that it will experience injury during anal sex and make it easier for the HIV virus to enter the body (Sidtanding et al., 2017) .

The number of HIV cases in Indonesia is based on a report from the Directorate General of P2P HIV/AIDS and STI Information Systems 2019, showing that there has been an increase in cases from year to year. This is evidenced by the number of HIV cases in Indonesia in 2017 of 48,300 cases. Meanwhile, in 2019 the number of HIV cases in Indonesia reached 50,282 cases (RI Ministry of Health, 2020).

Based on data obtained from the 2020 government agency performance reports in Central Java, the number of HIV cases in 2019 was 2,704. Meanwhile, in 2020 the number of new HIV cases reached 2,749.

The proportion of HIV positive in Pati Regency is dominated by sexually transmitted infection (STI) sufferers and men who have sex with men (MSM). Based on data obtained from the Pati Regency Health Office in 2021, the projected estimate of MSM in Pati Regency is an estimated 1,013 people. Whereas in the case finding in the field, the number of MSM found until October 2021 reached 2,073 people, and around 54 of them had been detected as PLHIV (Pati District Health Office, 2021). Based on information from MSM outreach informants, from January to March 3, 2022, the number of MSM who disclosed their identity and was reached by SSR NGOs Fatayat NU Pati as many as 600 people, and about 15 of them have been detected as PLHIV.

METHODS

This research is a quantitative analytic study with a case control design. The study began by identifying the dependent variable, namely the case group (HIV positive MSM) and the control group (HIV negative MSM), then continued by identifying the independent variable, namely risky sexual behavior. The research was conducted at the SSR Fatayat NU Pati NGO in May-June 2022. The study population was all MSM who joined the SSR Fatayat NU Pati NGO. The case sample was 26 MSM who were still actively involved in the NGO SSR Fatayat NU Pati and until March 2022 had been identified as infected with HIV. While the control sample was taken with the same number of cases consisting of 26 MSM NGO SSR Fatayat NU Pati who were not infected with HIV based on VCT results. Primary data was collected by interview using a questionnaire prepared by the researcher. Univariate analysis was performed by looking at the frequency distribution of the independent variables. Bivariate analysis using the Chi Square and Fisher Exact tests with a degree of confidence of 95%, α 5% (0.05), if the p value <0.05 it is said to be significant and look at the OR (Odds Ratio), which is a comparison of the degree of exposure between cases and controls.

RESULTS AND DISCUSSION

RESULTS

This study was conducted using a questionnaire and medical records to determine the case group. This research was conducted on MSM respondents who joined the NGO SSR Fatayat NU Pati with the number of respondents being 26 cases and 26 controls.

Table 1. Frequency Distribution Based on Respondent Characteristics

Characteristics of Respondents	Case		Control	
	f	%	f	%
Age				
15-49	23	88.5	26	100.0
>49	3	11.5		
Religion				
Muslim	25	96.2	22	84.6
non muslim	1	3,8	4	15,4
last education				
Graduated from SD/MI	1	3,8	1	3,8
Graduated from Middle School/Equivalent				
Graduated from high school/equivalent	25	96.2	24	92.3
Graduated Diploma/Bachelor Degree			1	3,8
Type of work				
Student			3	11.5
PNS/TNI/Polri				
Self-employed	7	26,9	2	7,7
Private	17	65,4	21	80.8
Laborer	2	7,7		
Marital status				
Marry	16	61.5	25	96.2
Single	4	15,4	1	3,8
Widower	6	23,1		

Table 1 shows that most of the respondents were aged between 15-49 years in both the case group of 23 people (88.5%) and the control group of 26 people (100%). The table also shows that 94.25% of respondents have high school/equivalent education, 90.4% of respondents are Muslim, 73.1% work as private employees, and 78.85% are single.

High activity at this age makes individuals start being sexually active as teenagers. Sexual activity increases until the age of 30 (Wati, 2021). Unmarried respondents tend to be 6 times more at risk of contracting HIV because the level of caution is less in sex and has no responsibility and more time in

finding new partners (Ismayanti et al, 2022).

The level of education from the results of the study showed that most of the respondents had high school/equivalent education. This is in accordance with research conducted by Aryastuti et al, 2020 that based on educational characteristics it is known that most of the high school/equivalent homosexual group is 70.9%.

The results of the univariate analysis of risky sexual behavior that were mostly carried out by respondents were inconsistent use of condoms (44.2%), having more than 1 partner (42.3%), engaging in anal sex (53.85%), and having sex orally (82.7%).

Table 2. Frequency Distribution of Respondents' Risky Sexual Behaviors

Risky Sexual Behavior	**Case**		**Control**	
	f	%	f	%
Consistent use of condoms				
Inconsistent	18	69,2	5	19,2
Consistent	8	30,8	21	80.8
Changed partners				
>1 person	15	57,7	7	26,9
Not changing partners	11	42,3	19	73,1
anal sex				
Yes	16	61.5	12	46,2
No	10	38.5	14	53,8
Oral sex				
Yes	23	88.5	20	76.9
No	3	11.5	6	23,1

DISCUSSION

Characteristics of Respondents

Most of the respondents were aged 15-49 years, the youngest was 19 years old and the oldest was 63 years old, the average age was 33 years in the case group and 29 years in the control group. Education of respondents in cases and controls ranging from elementary school to PT. Most of the respondents have high school education (94.25%). Most of the case and control respondents work as private employees (73.1%), are Muslim (90.4%), and are not married (78.85%).

Risky Sexual Behavior

The results of this study are in line with the research of Fransiska and Gusmiati (2019) which shows that consistent use of condoms is a risk factor for HIV/AIDS transmission with an odds ratio (OR) of 16,200 and is statistically related to the incidence of HIV in the homosexual community. Risky sexual behavior is increasing, especially if you don't use a condom during risky intercourse. HIV transmission through the exchange of bodily fluids can occur during sexual intercourse and can be prevented by using contraceptives such as condoms. Individuals can reduce the risk of HIV infection by limiting exposure to risk factors, one of which is using a condom during sexual intercourse (WHO, 2022). Based on field research, information was obtained that respondents actually understood the risk of contracting HIV/AIDS if they did not use condoms consistently because every health education about STIs and HIV/AIDS prioritized at-risk populations, including the MSM group. However, not a few of the respondent couples were not willing to use condoms on the grounds that they would disturb their comfort. The results of this study were also supported by research by Aryastuti, et al (2020) that one of the factors inconsistent with respondents' use of condoms was that they felt uncomfortable or unable to feel satisfaction in sexual intercourse when using condoms.

Based on the behavior of multiple partners, the case group tends to have many sexual partners. Rahardjo, et al (2015) showed differences in the number of sex partners based on education level. Respondents with a bachelor's degree actually had the highest average number of sex partners compared to private employees and students. The large number of sex partners as part of risky sexual behavior should be influenced by understanding and knowledge of HIV/AIDS. On the contrary, based on the results of research conducted by respondents with high school education status and private employment status, the behavior of changing partners dominates

Sexual activity through anal is very risky to be infected with HIV. Having anal sex facilitates the transmission of the HIV virus because in the anus there is only a thin rectal mucous membrane which is easily torn, so it is easy for lesions to occur in the anus. If a lesion occurs, the virus can easily enter and cause an infection (Noviana, 2019). Based on research in the field, it was shown that the behavior of anal sex and oral sex was mostly carried out by the case and control groups. But in this study the control group dominate anal and oral wipes. Thus, the control group still has the opportunity to be infected with HIV.

From the description of risky sexual behavior, it shows that the behavior of using condoms among MSM is still low in cases, MSM tends to change partners in sexual intercourse and many MSM engage in anal and oral sex. If this condition is not treated immediately, it is feared that HIV transmission will not only be concentrated in key populations but will quickly spread widely to the general public.

CONCLUSION

Most of the respondents had risky sexual behavior. Risky sexual behavior factors associated with the incidence of HIV in MSM were consistent use of condoms ($p = 0.001$) and multiple partners ($p = 0.049$). The chance of HIV occurring in MSM is not using condoms consistently, which is 9,450 times more likely to be infected with HIV and changing partners has a 3,701 chance of being infected with HIV. Meanwhile, there is no significant relationship between anal sex and oral sex with the incidence of HIV.

It is hoped that health institutions together with NGOs and related elements will continue to provide counseling and education, especially regarding sexual orientation for the community, especially teenagers, as well as education to increase MSM knowledge, especially regarding HIV transmission. Conduct routine STI and HIV/AIDS screenings so that countermeasures can be taken immediately. Avoid risky forms of sexual behavior because risky sexual forms have a risk of being infected with HIV, and if you use a condom there is a possibility of it slipping and tearing.

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