

Research Article

Correlation Analysis Sexual Compulsivity and Risk Sexual Behaviour with the Occurrence of HIV/AIDS in Makassar City: A Study on Man Who Have Sex with Men (MSM)

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Abstract: HIV / AIDS is a new emerging disease that has become the most widespread and detrimental epidemic the world has ever experienced. HIV / AIDS spreads rapidly without recognizing national borders and exists in all types of population. Male sex men (MSM) are one of the key populations most vulnerable to HIV / AIDS. The purpose of this study was to analyze the relationship of sexual compulsivity and sexual behavior at risk of HIV / AIDS incidence in MSM. The study design was case control, a mix method approach with in-depth interviews. The total sample is 114 samples consisting of 38 cases and 76 controls and taken by purposive sampling. The research was conducted at Gaya Celebes Foundation in April to May 2019. Quantitative data were analyzed using the chi square test and qualitative data was carried out by data reduction, presentation, and data verification. The results showed that sexual compulsion (OR = 7.198 95% CI: 1,956 - 39,290) and risky sexual behavior (OR = 3,201 CI 95%: 1,218-9,074) were factors related to the incidence of HIV / AIDS in MSM in Makassar City. Cooperation is needed by health workers and assistants of MSM to educate MSM to reduce high risk behaviors during sexual intercourse such as by notifying MSM to always carry and use condoms whenever and wherever during sexual intercourse.

Keywords: MSM, HIV / AIDS, sexual compulsivity, sexual behavior.

INTRODUCTION

HIV stands for "Human Immunodeficiency Virus" where "human" because this virus causes disease in humans; "Immunodeficiency" because the immune system usually protects a person from disease; "Virus" because like other viruses, HIV is a small organism that infects living things and uses them to multiply. HIV causes AIDS (Acquired immune deficiency syndrome). AIDS is a group of diseases that occur when the immune system is damaged by HIV. Most people who have been infected with HIV feel healthy for the first few years after they get the virus, but then become sick with AIDS (Granich and Mermin, 2006).

HIV continues to be a major global public health issue, having claimed more than 35 million lives so far. In 2017, 940 000 people died from HIV-related causes globally. Key populations are groups who are at increased risk of HIV irrespective of epidemic type or local context. They include: men who have sex with

men, people who inject drugs, people in prisons and other closed settings, sex workers and their clients, and transgender people (WHO, 2018). Gay men and other men who have sex with men accounted for an estimated more than 25% of new HIV infections in Asia and the Pacific and the Caribbean, and an estimated about 20% of new infections in eastern Europe and central Asia (UNAIDS, 2018)

In Indonesia, HIV / AIDS was first discovered in Bali Province in 1987. Until now HIV / AIDS has spread in 433 out of 514 districts / cities in 34 provinces in Indonesia. The cumulative number of HIV infections reported up to 2018 is 301,959. The incidence of HIV / AIDS in 2017 according to sex shows that the percentage of HIV / AIDS positive men is greater than women. HIV positive people in men are (63.6%) and in women are (36.4%). Whereas AIDS sufferers in men are (68.0%) and in women are (31.9%). HIV prevalence according to the highest risk factors is MSM by

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(24.2%), heterosexual (22.4%) and IDU by (1.7%). While the highest AIDS cases were Heterosexual at (68.9%) and lowest transfusion (0.3%) (Ministry of Health, 2018).

The number of HIV infections in 2017 in South Sulawesi was reported as 1,366 cases (Ministry of Health, 2018). Makassar City is a district / city in South Sulawesi that has the highest HIV / AIDS prevalence. The number of HIV cases up to October 2018 was 658 cases. The highest percentage was reported in male sex (79%) while women (21%). While the number of HIV cases according to the highest risk group was LSL 255 cases, followed by high risk couples 76 cases, others 60 cases, customers 57 cases, transvestites 16 cases, IDU 12 cases, and WPS 10 cases (Makassar City Health Office, 2018).

As the most hidden community, MSM are very difficult to reach for HIV / AIDS prevention and prevention programs. On the other hand, their behavior is very risky for transmission of HIV / AIDS, for example changing sexual partners without using condoms and lubricants, and doing oral and anal sex (Rokmah, 2015). Sexual intercourse is very high risk of transmitting the HIV virus. The risk will be even greater if you have sexual intercourse with many or alternating sex partners without using a condom (Ministry of Health, 2017).

Research conducted by Shuper, Joharji and Rehm, (2014) showed that sexual compulsivity proved to have a direct effect on risky sexual behavior. Sexual compulsivity is considered to cause individuals to become more permissive, especially in carrying out risky sexual behavior, which creates a domino effect such as psychosocial health problems and increased cases of exposure to HIV / AIDS. Sexual compulsivity itself, in influencing risky sexual behavior not only occurs in men who are seen as permissive in sexuality, but also in women (Rahardjo and Hutagalung, 2016). The purpose of this study was to find out whether sexual compulsivity and risky sexual behavior were risk factors for the incidence of HIV / AIDS in MSM in Makassar City.

METHODOLOGY

Design of Research

This research is a mixed method study with a case-control study as the main approach and supported by a qualitative approach using in-depth interview methods to reinforce and explain more in quantitative results obtained. This research was conducted at Gaya Celebes Foundation, Makassar City.

Population and Samples

The population in the study was MSM who were part of the Gaya Celebes Foundation. The sample size in this study was 38 respondents and 76 case respondents, so the total sample consisted of 114 MSM.

The respondents in this study were MSM who had positive HIV status and control respondents were MSM who had negative HIV status.

Method of Collecting Data

Data collection was carried out using questionnaires and medical records to ascertain the respondent's HIV status. For qualitative data using in-depth interview techniques.

Data Analysis

Data processing is using STATA 12. Quantitative data were analyzed by bivariate analysis using the chi square test and then supported by qualitative analysis with stages of data reduction, data presentation and verification.

RESULTS

Univariate Quantitative Research

Table 1. Distribution of Respondents Characteristics Based on Sociodemography

Characteristics	Case (n=38)		Control (n=76)	
	n	%	n	%
1. Age Group				
12 – 16 year	0	0,00	1	1,32
17 – 25 year	25	65,79	56	73,68
26 – 35 year	11	28,95	18	23,68
36 – 45 year	2	5,26	1	1,32
2. Last education				
Uneducation	0	0,00	0	0,00
Primary School	0	0,00	1	1,32
Junior High School	2	5,62	13	17,11
Senior High School	19	50,00	52	68,42
Bachelor	17	44,74	10	13,16
3. Job				
Civil Servant	4	10,53	0	0,00
Employee	17	44,74	32	42,11
Driver	0	0,00	0	0,00
Farmer	0	0,00	0	0,00
Traders	5	13,16	15	19,74
Others	4	10,53	4	10,53
Does not work	8	21,05	22	28,95

Table 1 shows the characteristics of respondents in this study. Most of the respondents in this study both in the case group and the control group aged 17-25 years, as many as 25 respondents in the case group (65.79%) and 56 respondents in the control group (73.68%). Based on the characteristics of respondents' education there were 19 respondents in the case group (50.00%) and 52 respondents in the control group (68.42%) who had the last high school education. Characteristics based on the respondent's work showed that the respondents had jobs as burh / employees in the case group as many as 17 respondents (44.74%) and 32 in the control group 42.11%).

Table 2 Distribution of Respondents Based on Research Variables

Variables	Case (n=38)		Control (n=76)	
	n	%	n	%
1. Sexual Compulsivity				
Experience sexual compulsivity	35	92,11	47	61,84
Not experience sexual compulsivity	3	7,89	29	38,16
2. Risk Sexual Behaviour				
Not Risk	30	78,95	41	53,95
Hight risk	8	21,05	35	46,05

Table 2 shows that MSM respondents who experienced sexual compulsivity in the case group were 35 respondents (92.11%) and in the control group as many as 47 respondents (61.84%). While MSM who had HIV / AIDS risky sexual behavior in the case group were 30 respondents (78.95%) and in the control group as many as 41 (53.95%).

Bivariate Results

Table 3. Distribution of Independent Variable Risk for HIV / AIDS in MSM in Makassar City

Variables	Case (n=38)		Control (n=76)		Total	
	n	%	n	%	OR	CI 95%
1. Sexual Compulsivity						
Experience sexual compulsivity	35	92,11	47	61,84	7,198	1,956 – 39,290
Not experience sexual compulsivity	3	7,89	29	38,16		
2. Risk Sexual Behaviour						
Not Risk	30	78,95	41	53,95	3,201	1,218 – 9,074
Hight risk	8	21,05	35	46,05		

The bivariate test results between the independent variables and the dependent variable in this study are shown in table 3. The results of the analysis showed that sexual compulsion, OR = 7.198 (95% CI: 1,956 - 39,290), and sexual behavior OR = 3,201 (95% CI: 1,218 - 9,074) statistically significant for the incidence of HIV / AIDS in MSM in Makassar City.

Qualitative Research

Qualitative research was carried out to complement quantitative research with an in-depth explanation of sexual behavior of MSM in Makassar City.

Based on the interviews, most respondents knew what risky sexual behavior was and also its effects.

“... sexual behavior –changing partners is actually normal, but it must be accompanied by consistent use of condoms ... yes the risk is if changing partners can contract STDs and HIV” (MN, 25 Informan 1).

“... changing partner sexual is actually normal for me, but the risk if we don't use condoms is that we can get the disease” (HB, 27 Informan 2).

“...we can get a virus when having sex with more than one person ... so the point is don't like snacks outside” (AC, 24 Informan 3).

“... sexual behavior that changes partners can make people unfaithful to their partners, the risk of getting the disease is also high” (RY, 19 Infroman 4).

“... very wide range of diseases, it can also damage yourself and your partner” (RS, 22 Informan 5).

“... I know what risky sexual behavior is, what makes me infected with HIV, therefore, I now safeguard my sexual behavior, like using a condom during intercourse so as not to transmit it to others” (MM, 27 Informan 6).

DISCUSSION

Epidemiological data in many countries have shown that the HIV epidemic among men who have sex with men (MSM) has become one of the most important priorities in combating HIV / AIDS. The results of the analysis statistically showed that sexual compulsivity and risky sexual behavior were risk factors for HIV / AIDS in MSM in Makassar City.

The results of multivariate analysis showed that compulsiveness was statistically a factor associated with the incidence of HIV / AIDS in MSM in the city of Makassar (p = 0.049 OR = 4.269 95% CI = 1.004-18.150). This shows that respondents who experienced sexual compulsivity were 4.26 times more likely to have HIV / AIDS than those who did not experience sexual compulsivity.

A person who experiences sexual compulsivity tends to engage in high-risk sexual behavior regardless of the possibility of contracting HIV. The results of this study are in line with the research conducted by (Wang *et al.*, 2018) who showed that sexual compulsivity was associated with unprotected anal sex (AOR = 1.039 95% CI = 1.004 - 1075). Sexual compulsivity makes a person not have sexual control, this causes a reduction in the ability of MSM to avoid sexual risk, because rational decision making may be disturbed by excessive sexual arousal.

Sexual compulsivity can provide an increased risk for unsafe sexual behavior through at least three mechanisms: sexual compulsivity can inhibit condom use or other barrier methods because MSM with sexual compulsivity do not experience sexual barriers when faced with the threat of HIV; MSM with sexual compulsivity may have sex more often with multiple partners because of increased sexual arousal during negative mood conditions and the use of sexual behavior to overcome these mood conditions; and certain cognitive factors, such as poor cognitive control and the belief that sexual behavior provides validation and affirmation, can cause failure to use condoms and / or inhibit sexual behavior (Miner and Coleman, 2013).

Research conducted by Laksana (2015), shows that there are many risk factors for HIV / AIDS transmission, but the most important are sexual behavior factors. Risky sexual behavior at risk is the main factor associated with transmission of HIV / AIDS. Many sex partners who do not use condoms in carrying out risky sexual activities are the main risk factors associated with HIV / AIDS transmission (Neferi, 2016).

The results of in-depth interviews showed that most MSM had difficulty controlling their sex drive even when they were on a daily basis sometimes they were still thinking about having sexual relations. MSM who have excess sex drive find it difficult to have sexual relations only with their regular partners, so they tend to have more than one sex partner.

In addition to changing over and over the couple of HIV risk sexual behavior that MSM often do is having anal intercourse. Research conducted by (Berry *et al.*, 2012) found that having anal sex was associated with the incidence of HIV infection. The results of the analysis show that having anal sex without a condom has a probability of transmission 18 times higher than vaginal sex. Anal sex carried out by MSM can cause rectal injury due to the absence of lubricant fluid as in the vagina, given the large absorptive capacity of the rectum, the deposition of semen in the rectum can cause a high risk of transmission of infection (Fatmala, 2016).

The results of research conducted by (Wardhani, Shaluhayah and Demartoto, 2015) show that a lack of understanding of the benefits of condoms and lubricants is the cause of inconsistent and lubricating behavior in MSM. The use of condoms at every risky sex activity is one of the HIV prevention activities. Around 1989, when the spread of the HIV and AIDS virus began to run rampant without anyone being able to stem, Thailand provided a solution to socialize condom use which was then implemented in several Asian countries, such as Cambodia, Vietnam, China, Myanmar, the Philippines, Mongolia and the Republic Laos. This program is considered quite successful in

reducing the number of HIV and AIDS cases (Laksana, 2015; Kana, *et al.*, 2016).

CONCLUSION

Cooperation is needed by health workers and assistants of MSM to educate MSM to reduce high risk behaviors during sexual intercourse such as by notifying MSM to always carry and use condoms whenever and wherever during sexual intercourse. The need for good and correct comprehensive reproductive health education for children entering puberty so that they are able to recognize and understand their sexual orientation and control their sexual urges.

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