# Perception of Vulnerability to HIV Infection to Consistence of Condoms Use In transgender Sex Workers

Persepsi Kerentanan Tertular HIV terhadap Konsistensi Penggunaan Kondom pada Waria Pekerja Seks

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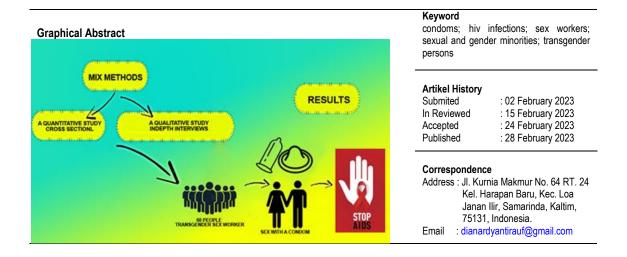
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## Abstract

Transgender is a group with a high risk of HIV AIDS transmission due to the large number of base areas for transgender to conduct sexual transactions with sex partners. Changing behavior among transgender sex workers is still complicated because of the low use of condoms among transgender women. The study aimed to analyze the relationship between perceptions of vulnerability to contracting HIV with the consistency of using condoms among transgender sex workers to prevent HIV AIDS in the city of Makassar. This type of research was mixed methods research with a quantitative and qualitative approach using a sequential explanatory design (combination model). The quantitative data collection technique used a cross-sectional research design. The qualitative data used in-depth interviews with a research design using case studies to strengthen the quantitative results obtained from HIV-positive transgender sex workers. The number of respondents in this study was 60 people. The results showed a relationship between perceived vulnerability to contracting HIV and the consistency of condom use among transgender sex workers. Islam explicitly states that homosexual and lesbian behavior is a form of deviant sexual behavior contrary to human nature. Sex in Islam is not just to satisfy lust but has an important goal regarding the continuity of life, namely continuing offspring/ reproduction so that same-sex relations are unlikely to produce offspring, so this is not in line with the purpose of sex in Islam.

## Abstrak

Waria menjadi kelompok dengan risiko tinggi penularan HIV AIDS disebabkan banyaknya daerah pangkalan bagi waria untuk melakukan transaksi seksual dengan pasangan seks. Perubahan perilaku dikalangan waria pekerja seks masih sangat sulit karena masih rendahnya pemakaian kondom dikalangan waria. Tujuan penelitian adalah menganalisis hubungan persepsi kerentanan tertular HIV dengan konsistensi penggunaan kondom pada Waria Pekerja Seks untuk pencegahan HIV AIDS di kota Makassar. Jenis penelitian ini adalah penelitian mix methods dengan pendekatan kuantitatif dan kualitatif menggunakan desain sequential explanatory (model kombinasi). Teknik pengumpulan data kuantitatif menggunakan desain penelitian rorss sectional dan data kualitatif menggunakan wawancara mendalam dengan rancangan penelitian menggunakan studi kasus untuk memperkuat hasil kuantitatif yang diperoleh dari Waria Pekerja Seks yang HIV positif. Jumlah responden dalam penelitian ni sebanyak 60 orang. Hasil penelitian menunjukkan bahwa ada hubungan persepsi kerentanan tertular HIV dengan konsistensi penggunaan kondom pada Waria Pekerja Seks. Islam secara tegas menyatakan bahwa perilaku homoseksual maupun lesbian adalah bentuk perilaku seksual menyimpang bahkan bertentangan dengan fitrah kemanusiaan. Hubungan seks dalam Islam tidak hanya sekadar untuk memuaskan hawa nafsu, akan tetapi memiliki tujuan penting menyangkut kelangsungan kehidupan, yaitu melanjutkan keturunan/ reproduksi sehingga hubungan seks dalam Islam.





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# INTRODUCTION

Acquired Immuno Deficiency Syndrome is an infectious disease caused by the Human Immunodeficiency Virus (HIV). Its spread is swift throughout the world (Castelli & Sulis, 2017). The AIDS pandemic has spread to at least 166 countries around the world. The number of cases has continued to increase since it was first discovered among homosexual men in the United States in 1981. It has had a negative impact on the development of the nation as a whole because apart from affecting health, it also affects social, economic, political, and defense security (UNAIDS, 2016).

Based on the research results from the National Center for Health Research, in America in 2002, around 4.4% of people who had homosexual relations were aged 15-44 years. Statistical results in Indonesia show that around 8-10 million men have been involved in homosexual relationships. Indonesia is one of the countries in the Asian region with a relatively faster growth in HIV and AIDS cases. It is included in the riskiest Concentrated Level Epidemic areas, meaning countries with an HIV prevalence rate of more than 5% in specific sub-populations, for example, in the group of vendors. Sex and on drug users. Since the first case was found in 1987 in a Dutch tourist who visited and died in Bali, until now, new cases of HIV have continued to increase. So it is necessary to implement programs that follow the number of target populations so that the situation and the HIV AIDS epidemic, which is expected to continue to increase, can be controlled (Demartoto, 2011).

Based on data from the Makassar City Health Office in 2017, the number of HIV AIDS sufferers to date has reached 9,302 people. The data collected by KPA Makassar city from all hospitals, community health centers (Puskesmas), and other counseling services from June 2005 to 2017 was 9,302 people. For people living with HIV, the number is around 6,760 people, and for residents who are already positive for AIDS, there are 2,452 people. The spread of HIV AIDS changes every year from injecting needles. Now the spread of HIV AIDS is dominated by free sex, including same-sex relationships (Dinas Kesehatan Kota Makassar, 2017).

Based on the distribution of HIV AIDS cases in YPKDS related to risk factors from 2016 to 2017, there were 3,568 cases. The prevalence of HIV AIDS is high in married couples (high risk) at 10.87%, followed by MSM (Men Sex Men) at 7.68%, FSW customers at 4.82%, IDU at 4.27%, FSW customers at 2.48%, and transgender at 1.47%. There were 89 transgender people, of whom were positive for HIV AIDS in 2016, while in 2017, there were 58 cases of HIV AIDS among transgender people (YPKDS, 2017).

Transmission of sexually transmitted infections and HIV AIDS is still concentrated in high-risk groups such as transgender sex workers. In 2016, there were 2,676 cases of Sexually Transmitted Infection (STI) in the city of Makassar, according to the highest risk group being the FSW group, namely 2024 cases. Meanwhile, there were 96 cases of MSM (Men Like Men), 50 cases of PS customers (Sex Workers), 50 cases of WBP, 44 cases of married couples, 9 cases of transgender, and others (Bumilan, employee, closed status) (Dinas Kesehatan Kota Makassar, 2017)

Transgender is a group with a high risk of HIV AIDS transmission due to a large number of hotspots for transgender people to conduct sexual transactions with customers, so transgender is said to be at risk of contracting HIV AIDS. Biologically, all transgender people have anal intercourse during their sex life compared to 10% of female sex workers who use anal sex, so almost 11% of transsexuals are found to be HIV positive of the total number (Irianto, 2014).

Transgender people living in the city of Makassar generally carry out their daily activities. They work in fields that require skills that women usually do. Waria often appears as they are without covering up their hereditary characteristics. Even though they are dressed as men, their speech style and behavior have characteristics like women. In the past, transgender tended to be closed and shy, but now, transgender is more involved and open. (Nurdiyanah et al., 2015)

The sexual lifestyle of transgender can be reflected in the frequent changing of partners, not using condoms or protection, and engaging in anal and oral sex. In fulfilling their sexual needs, transgender women need a sexual partner and can be used as a life partner, usually called a "husband" or boyfriend. However, the mention of "husband" or boyfriend is not solely because there is a legal bond between them. There is no fundamental difference between "husband" and boyfriend, only if boyfriend means a man who is only a lover and does not live in the same house with them while "husband" is a man who is also a lover and lives in the same house. (Koeswinarno, 2004)

According to the research results of transgender in protecting themselves from HIV AIDS and preventing the transmission of HIV AIDS is still very low due to the knowledge of transgender people,

which is one of their obstacles in protecting themselves from unwanted things. Behavior to prevent the transmission of HIV AIDS is very necessary when having sex. If prevention efforts are not carried out, it is feared that the number of people affected by HIV AIDS infection will increase every year (Enggarwati, 2015).

The risk of transmission of STIs and HIV AIDS is excellent for transgender sex workers, so preventing the transmission of STIs and HIV AIDS can be done through healthy sex by using condoms and lubricants correctly and correctly. In previous studies, Changing behavior among transgender sex workers is still complicated because of the low use of condoms among transgender (Bass et al., 2022; Budhwani et al., 2017). The availability of condoms for transgender sex workers depends on the condoms provided by the South Sulawesi KPAP and the NGO Gaya Celebes Foundation, which oversees them. Every week, transgender sex workers receive condoms which are directly distributed by the Gaya Celebes NGO and if the condoms run out, they can directly ask the coordinator of the transgender sex workers or the Gaya Celebes NGO that oversees them. Based on the explanation above, transgender women who work as sex workers are at high risk and vulnerable to contracting HIV AIDS because they have anal sex with multiple partners. Deficient use of condoms is the primary basis for this research related to perceptions of vulnerability to contracting HIV AIDS on the consistency of condom use among transgender sex workers. The results of this study will benefit the public, health practitioners, and related institutions in planning, outreach, prevention, and control of HIV AIDS among transgender sex workers.

# METHODS

This research uses mixed methods research with quantitative and qualitative approaches. This study uses a sequential explanatory design (combination model), namely research that begins with quantitative and then with qualitative methods. Quantitative data used a cross-sectional research design with research that only made brief observations. Namely, the independent variable and the dependent variable were measured at the same time and in one measurement. Meanwhile, qualitative data is carried out to describe or make a description of a situation. The technique of data collection was through in-depth interviews with a research design using case studies to strengthen the results of quantitative research obtained from transgender sex workers who are HIV positive.

The population in this quantitative study were 60 transgender sex workers registered with the Gaya Celebes NGO. The sample used in this study was all transgender sex workers registered with the Gaya Celebes NGO, as many as 60 people. In this study, the sampling technique used was the total sampling method. Thus, the researcher took a sample of all transgender women who worked as sex workers, with 60 people.

The inclusion criteria for research subjects were having had sexual intercourse with men, working as transgender sex workers, domiciled in Makassar city, recorded in field outreach reports for the Gaya Celebes NGO Foundation, had a clear address that could be identified and could be found in the Makassar city area on when the research took place using instruments made by researchers then tested for reliability and validity, able to communicate well, willing to be a respondent as evidenced by signing an informed consent sheet. The exclusion criteria for research subjects were not in the city of Makassar when the research was conducted, and respondents who experienced Opportunistic HIV AIDS were not willing to be respondents.

The presentation of data related to Perceived Vulnerability is the respondent's assessment of vulnerability to HIV AIDS transmission using the Kolmogorov-Smirnov test. Perceived vulnerability is the respondent's assessment of vulnerability to HIV/AIDS transmission. The categorization of respondents' perceptions of susceptibility to disease is based on the normality distribution using the Kolmogorov-Smirnov test. If it is normally distributed, then the categorization uses the mean value, and if it is not normally distributed, then the categorization uses the median value. Categorization is divided into two. Namely, it is said to be bad if the score is less than the mean or median, and it is good if the score is more than or equal to the mean or median. The results of the normality test on research data on perceptions of susceptibility to contracting the disease are not normally distributed, so the categorization uses the median value. The respondent's perception of susceptibility to contracting a disease is bad if <8, and the perceived susceptibility to contracting a disease is good if it is ≥8.

## **Diversity: Disease Preventive of Research Integrity**

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## Table 1

Frequency Distribution of Answers Detailed Perceptions of Susceptibility to HIV AIDS

Statement	F	Agree		Disagree	
		n	%	n	%
I am susceptible to STIs by changing partners without using a condom	60	46	76.7	14	23.3
I can easily get HIV if I have sex without using a condom	60	40	66.7	20	33.3
I am not at risk of getting HIV from my partner	60	43	71.7	17	28.3
I am not at risk of contracting HIV AIDS by my customers	60	38	63.3	22	36.7
I don't get HIV easily because I'm in good health	60	41	68.3	19	31.7

Note : F= frequency, n= total, %= percentage

## RESULTS

Table 1 shows that of the 60 respondents who were studied, some respondents lacked perceptions of vulnerability to contracting HIV AIDS in this study. As many as 36.7% of respondents stated that they disagreed with the statement that there was no risk of contracting HIV AIDS by the customers, and those who agreed with the statement that there is an ease of contracting STIs by changing partners without using a condom were 76.7%.

Table 2 shows that the percentage of respondents who were inconsistent in using condoms for each respondent with a bad perception of vulnerability to contracting HIV AIDS was 50.0%. The chi-square test results obtained a p-value of 0.044 > 0.05, which means that Ho is rejected so that there is a significant relationship between the perceived vulnerability of HIV AIDS and the consistency of using condoms.

The results of in-depth interviews with key informants related to perceptions of vulnerability to contracting HIV AIDS as expressed by informants that vulnerability to HIV is because they already know their HIV status and do not take an HIV test as an effort to prevent their work as Transgender Sex Workers who are at risk of contracting HIV. It is according to the opinion of the informant as follows:

> "... it is highly likely that you are susceptible to infection because the stage is HIV, right? In the past, it was 2 to 10 years, right? If we think now, the number of viruses is just a matter of months, so if we do not take an HIV test, we will easily get infected." (WD, 34 years old, Panaikang)

The cause of the main informant being infected with HIV was due to the frequent changing of partners without using a condom, this was according to the opinion of the informant, namely:

"...I do not really know where we came from because we changed partners and we did not know which clean person came... and at that time, there was no system for having to use a condom like that... there were still very few people who used a condom, and it's from 1987. That's how it is." (RR, 43 years old, Pasar Ciduk)

# DISCUSSION

This research focuses on the consistency of condom use among transgender sex workers in Makassar city. The consistency of condom use among transgender sex workers is divided into two categories: consistent and inconsistent. Behavior is the whole (totality) of one's understanding and activity which is the joint result of internal and external factors. A person's behavior is very complex and has a very wide range. There are three domains or domains of behavior, namely cognitive (cognitive), affective (affective), and psychomotor (psychomotor). By education experts in Indonesia, these three domains are translated into creativity (cognitive), taste (affective), and intention/action (psychomotor).

Based on the results of the study, it was shown that out of 60 respondents, ten respondents were inconsistent in using condoms and lubricants (16.7%), and 50 respondents (83.3%), were consistent in using condoms and lubricants during the last two months every time they had sex with a customer.

The results of a qualitative study with HIVpositive transgender sex workers explained that

Perception of Vulnerability to HIV AIDS	Consistency in Condom Use				
	Inconsistent		Consistent		P Value
	f	%	f	%	_
Bad	5	50	9	18	
Good	5	50	41	83	0.044*
Total	10	16.7	50	83.3	

 Table 2

 Relationship between perceptions of susceptibility to contracting HIV AIDS and consistent use of condoms

*Note :* f= frequency, \*= Significant, %= percentage

informants routinely use condoms and lubricants when serving customers. The last time the informant served a customer was three months ago. The informant also explained that lubricant was used only during anal sex.

Meanwhile, the results of in-depth interviews with triangulation informants showed that transgender sex workers had received sufficient support and attention from the staff of the Gaya Celebes NGO. This is supported by the routine of field workers distributing condoms and lubricant free of charge to the Transgender Sex Worker community who are at hotspots and regularly conduct counseling and mobile VCT so that what needs to be done now is to increase motivation for the Waria community with the facilities that have been provided.

A similar study conducted by Dameria Ginting showed that the consistency level of condom use by FSW was 41.5%. There is a significant relationship between the consistency of using condoms and the incidence of sexually transmitted infection gonorrhea, where as much as 11.1% are exposed to sexually transmitted infection gonorrhea with a relative ratio of 4.974. The consistency of using condoms for nonspecific cervicitis sexually transmitted infections also has a significant relationship, where as many as 25.9% are affected by non-specific cervicitis sexually transmitted infections with a relative ratio of 2.538. And the consistency of condom use on the incidence of trichomoniasis sexually transmitted infection also has a significant relationship, where as many as 7.4% are affected by trichomoniasis sexually transmitted infection with a relative ratio of 7.641 (Ginting, 2016).

Perceived Susceptibility to contracting HIV (Perceived Susceptibility) is the respondent's assessment of vulnerability to HIV/AIDS transmission. Someone will have a different perception of an object. Therefore, perception has a subjective nature. The perception formed by a person is influenced by the contents of his memory (Eda, 2012). According to the Health Belief Model (HBM) theory, perceived vulnerability is a person's subjective perception of the disease risk. Someone will act to prevent and treat their illness if they feel vulnerable to disease. (Priyoto, 2014)

The test results show a significant relationship between perceptions of vulnerability to contracting HIV AIDS and the consistency of using condoms. The reality on the ground explains that respondents are aware that their profession as sex workers is very at risk of contracting STI and HIV AIDS. However, informants are still inconsistent in using condoms when having sex with regular partners and their customers.

The results of the qualitative research explain that the perception of vulnerability to contracting HIV AIDS Transgender sex workers who are HIV positive assumes that a person will be vulnerable to contracting HIV AIDS if he does not take an HIV test as a preventive measure from work as a transgender sex worker who is at risk of contracting HIV.

The statistical analysis of this study is in line with the research conducted by Ochoa & Sampalis (2014), which found a significant relationship between perceptions of vulnerability and STI and HIV AIDS prevention behavior. The research that was also conducted by Nur Eda found that there was a significant relationship between perceptions of vulnerability and the intention to use condoms in the Transgender Sex Worker community in Ternate (Eda, 2012). Qualitative research is also in line with the research conducted by Elton Chanakira, et al., which found that most informants had risky sexual behavior by considering themselves as a low-risk group for STI (Chanakira, 2014).

HIV can be transmitted through vaginal, anal, and oral sexual intercourse with people living with HIV without protection (Folayan et al., 2014). HIV transmission from the mother during pregnancy (in utero) (Waldorf & McAdams, 2013). Besides that HIV will also very quickly enter the blood vessels and spread throughout the body, use of obstetrical examination tools such as speculum, tenaculum, and other tools that have blood, vaginal fluids or semen infected with HIV, and used directly for other people who are not infected can transmit HIV, use of sharp and pointed tools such as needles, knives, razors, circumcising someone, getting tattoos, cutting hair, and can transmit HIV because these tools may be used without being sterilized first, syringes used in health facilities, or those used by serious drug users (injecting drug users-IDUs) ) has the potential to transmit HIV. However, HIV is not transmitted through eating utensils, clothing, towels, handkerchiefs, shared toilets, hugging, kissing on the cheeks, shaking hands, living at home with people with HIV/AIDS, mosquito bites, and other social relationships (Widoyono, 2011).

HIV AIDS can occur through sexual intercourse, so prevention needs to be focused on sexual intercourse (Rodger et al., 2016). In this case, the recommended preventive measures are to have safe sex by avoiding multiple partners and being more careful in choosing partners, namely those with a low risk of infection with STI germs and HIV AIDS, having monogamous relationships for life, practicing protective sex, namely sexual relations in which there is no exchange or contact with semen, vaginal fluids, or blood between partners, including using condoms (Desai et al., 2018). The possible effort to prevent the transmission of STIs and HIV AIDS is to practice safe sex (protective sex), namely by always using a condom every time you have sex with anyone. To prevent the spread of AIDS ornaments, condoms play an important role in smoothing the chain of AIDS transmission through sexual routes. Counseling is aimed at high-risk groups to practice safe sex by using condoms when having sexual intercourse. (Irianto, 2014)

HIV AIDS disease can cause guite serious Physically it raises problems for sufferers. Susceptibility to several diseases, such as the emergence of tuberculosis, infection of the mouth and throat by fungi, swollen lymph nodes, recurrent herpes zoster, and itchy spots appearing all over the body (Deeks et al., 2015; Duarte et al., 2018; Villar & Dongari-Bagtzoglou, 2021). In addition, there are many negative impacts arising from HIV AIDS, not only for sufferers but also for the country because it will hamper economic growth and destroy the number of people with production capabilities (human capital), without good nutrition, health facilities, and existing medicines undermine the local economy (Weil, 2014).

According to Islamic views, homosexuality is a form of deviant sexual behavior contrary to human nature (Zaini, 2017). Sex in Islam is not just to satisfy lust (procreation), but has an important purpose regarding the continuity of life, namely continuing offspring/reproduction (Khairani & Saefudin, 2018). In addition, this action is also contrary to religion and moral norms and also contrary to the sunatullah and human nature. Rasulullah SAW. has warned his people to stay away from this act, as narrated by Jabir bin Abdillah, that Rasulullah SAW said:

"The thing that I most fear fir my nation is the action of the people of Lut" (HR. Ibn Majah, 2561).

In another hadith, Ibn Abbas narrated, that the Messenger of Allah said:

"May Allah curse the one who does the action of the people of Loot, may Allaah curse the one who does the action of the people of Loot (three times)" (HR Ahmad, 2915).

We have also been told that Muhammad bin Ishaq narrated the hadith from Ashim bin Umar, Suhail bin Abu Salih, from his father, from Abu Hurairah, Rasulullah SAW said:

"Whoever you find doing the action of the people of Lut, kill the the one who does it, and the one to whom it is done" (HR. Ibn Majah, 2561).

# CONCLUSIONS

This study found a significant relationship between perceptions of vulnerability to contracting HIV. to the consistency of condom use. This study explains that informants with HIV status are caused by frequently changing sex partners without using condoms and lubricants. However, after knowing their HIV status, informants pay more attention to their health by consistently using condoms and lubricants every time they have sex with regular partners and customers so as not to endanger and infect others. However, most customers are not willing to use condoms when having sex because they feel uncomfortable and dissatisfied with using condoms, so the informant must convince the customer to want to use a condom to avoid STIs and HIV/AIDS, and if the effort is not successful, then the informant will refuse to serve the customer even with a larger fee. This research uses a mixed method that examines the results through 2 approaches, quantitative and qualitative so that the data obtained is more accurate. The limitations of this study are related to the collection of informants and the research location,

which is in a crime-prone environment because the time used to conduct the research starts at 21.00 WITA to 04.00 WITA. As for suggestions for the Makassar City Social Service and NGOs, After knowing the factors related to the consistency of condom use, it is necessary to provide health education related to the consistency of condom use in a persuasive, educative, and communicative manner to the Transgender Sex Worker community intensely and sustainably so that Working Waria Sex can better understand and understand the consistency of medical condom use. Existence of outreach for Transgender Sex Workers who work through social media to get customers to continue to ensure supplies of condoms and lubricants for Transgender Sex Workers who are looking for customers online (social media) or in localizations. As well as, Increased cooperation in terms of recording and reporting STI and HIV AIDS cases in Transgender Sex Workers with the Makassar City AIDS Commission (KPA). Transgender Sex Worker Community needs to increase awareness and concern for the consistent use of condoms and lubricants in preventing and reducing the incidence of STIs and HIV AIDS and to carry out self-examination related to STIs and HIV in the available health clinics. The community should to play an active role in increasing knowledge and disseminating information about STIs and HIV AIDS as well as consistency in the use of condoms and pelicans while for other researchers it is hoped that future researchers can develop and intervene regarding the consistency of condom use so that it is more effective and applicable.

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## **AUTHORS' CONTRIBUTIONS**

Dian Ardyanti Rauf designed the study, formulated the concept, enrolled participants, collected data, acquired the data, analyzed the data. Joko Sapto Pramono enrolled participants and collected data. Nino Adib Chifdillah formulated the concept, acquired the data, and analyzed the data. All authors revised the manuscript, and approved the final manuscript.

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#### **COMPETING INTERESTS**

The author(s) declare no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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