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# Application of Safe Sex Behaviour in Female Sex Worker and Sexual Transmitted Infection

*by* Nanik Handayani

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# Application of Safe Sex Behaviour in Female Sex Worker and Sexual Transmitted Infection

Esty Puji Rahayu, Lailatul Khusnul Rizki, Elly Dwi Masita, Nanik Handayani, Rizki Amalia

**Abstract**— *The incidence of STIs in the form of inflammation or ulceration will increase the risk of entering HIV infection when having unprotected sex between someone who has been infected with an STI (Sexually Transmitted Infections) and their partner. Preventing and treating STIs and HIV can reduce the risk of sexual transmission, especially in at-risk populations such as sex workers and their customers. The research method used was descriptive analytic with a cross-sectional approach and the sampling technique was purposive sampling. Data about safe sex behavior was obtained using questionnaires and interviews, while STI examination was carried out by physical examination and laboratory examination. The laboratory tests performed were vaginal swabs (gram staining and gmsa) and serological examinations (rapid tests). Results of a study on 36 female sex workers, 61.1% of female sex workers did not apply safe sex so that the results of 11.1% STI examination were diagnosed with condyloma, 88.8% received positive results in gram stain and exercise tests, 16.6% were diagnosed with syphilis and 27.8% received reactive results on HIV testing. The application of safe sex to risk groups greatly influences the occurrence of STIs and increases the risk of transmission of STIs because it needs promotive and preventive efforts by health workers to prevent the spread of STIs more widely.*

**Keywords**— *STI, Safe sex, HIV*

## I. INTRODUCTION

Sexually transmitted infections or venereal diseases are sexually transmitted diseases such as Siphilis, Gonorrhoe, chicken, herpes fungus, Hepatitis B, and HIV / AIDS. Sexually transmitted infections increase mortality and morbidity, especially in developing countries with limited resources, both directly resulting in quality of life and reproductive health, as well as indirectly in facilitating the transmission of HIV sexual infections and their consequences for the individual and national economy. Preventing and treating STIs can reduce the risk of HIV transmission through sex, especially in groups that have multiple sexual partners, such as sex workers and their customers. The presence of STIs with inflammation or ulceration will increase the risk of contracting HIV infection when having unprotected sex between a person who has been infected with an STI and his partner who has not been infected (Indonesian Ministry of Health, 2015). The highest incidence of gonorrhea is in female direct sex workers (38%), transgender (29%), homosexual (21%), and indirect sex workers (19%).

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The highest incidence of chlamydia in women direct or indirect (covert) sex workers is 41%, transgender (28%) and homosexuals (21%). The prevalence of gonorrhea and / or chlamydia ranges from 33% homosexuals and 56% women direct sex workers (Ministry of Health, 2011).

Tangkis localization is located in the Porong Health Center area and, there is still no optimal treatment of health workers. Judging from the patient's visit to the Porong Health Center in March 2016, there were only 5 people from the STI-risk group who came to the Puskesmas to examine themselves. The latest data in 2017 in the Porong Health Center area has 42 patients with HIV. This might occur because of the lack of understanding of the community about the symptoms and dangers of STIs so that the risk of HIV infection.

Based on interviews with researchers with several WPS in Porong Localization, they claimed that condom use was only done if the customers were willing to use it. WPS does not force to use condoms or refuse customers who do not want to use condoms so that safe sex behavior with condoms is rarely done by WPS.

Arifianti et al. (2008) conducted in-depth interviews with respondents who had safe sex behavior, claiming that they often experienced problems when asking customers to always use condoms. Respondents who intended to do safe sex claimed that when they were infected with STIs, they chose not to serve customers who were not willing to use condoms. They reason for menstruation when they meet customers suspected of being STIs and don't want to use condoms.

Behavior is influenced by several factors, namely predisposing (predisposing factor), enabling factors (enabling factors), and reinforcing factors (reinforcing factors). In a study conducted by Budiono (2012) predisposing factors that influence condom use in FSW and its customers are knowledge about STIs and HIV / AIDS, and WPS attitudes towards condom use. Enabling factors that influence condom use are information about STIs and HIV / AIDS. While the reinforcing factor is the customer's perception of the ability to have safe sexual intercourse as well as pimp / pimp support for condom use among FSWs and their customers.

The obstacle that often arises is the awareness of FSW even though they have received information about the STI disease they suffered, there are still many who continue to have unsafe sexual relations. This can occur due to economic factors, because different economic backgrounds between customers and female sex workers result in a gap between the ruling party (the customer) and the powerless party (WPS) (Arifianti, 2008).

Effective STI prevention and care efforts can be achieved by implementing a "public health package" which includes the promotion of safe sex behavior, distribution of condoms, improvement in seeking treatment behaviors, special services to high-risk population groups, complete STI management and early detection of infections that are symptomatic or asymptomatic. In addition to prevention efforts need good management for people with STIs. Effective treatment of STI patients, not only in anti-microbial treatment to cure and reduce the spread of disease, but also provide complete management given to improve good reproductive health (Ministry of Health, 2015).

Based on the background above, the authors are interested in analyzing safe sex behavior in WPS when serving with the incidence of STIs.

## II. METHODOLOGY

This research is a quantitative descriptive type, namely describing the results of data collection and data managed with statistical tables. The researcher collected data on the variables of the application of safe sex and the incidence of STIs in female sex workers (WPS). The population is 40 female sex workers. The sampling technique uses purposive sampling technique totaling 36 people. Sampling must meet the criteria of the researcher which is willing to be a respondent and in the last 3 months actively serving respondents. This research was conducted in the area of Porong

Health Center and localization in the Tangkis area, Porong.

The research procedure was carried out by submitting an application for the implementation of research from the Surabaya Nahdlatul Ulama LPPM to Porong Health Center, after obtaining permission from the researcher then approaching the respondent and explaining the procedure for conducting the research and conducting informed consent then conducting interviews, filling out questionnaires, observing and examining STIs and HIV at Porong Health Center.

The research instrument on safe sex behavior variables using a questionnaire. Behavior variables are divided into 2 questionnaires, the first is about the respondents' knowledge of STIs and safe sex with the form of multiple-choice questions and calculating the correct answers. The second questionnaire is to see safe sex behavior, counting using Likert. The questionnaire was adapted from research conducted by Trilaksono (2007). To measure the variable incidence of STIs is by physical examination and examination of vaginal swabs. HIV testing was carried out with a rapid test according to the SOP by Porong Puskesmas officers. Whereas syphilis examination is done with venous blood samples. The ingredients used are alcohol cotton, reagents for HIV testing. While the tools used are stick swabs, speculum, rapid tests, syringes etc.

Data is obtained directly / primary data, data collection is done by recapitulating the results of the observation and then describing the results of the data collection with the form of a statistical table.

### III. RESULTS

Next is the age of Sex Workers who are respondents from researchers:

Table 1. Distribution of Age of Sex Workers for Sex Workers in Porong Dried Localization

No	Age (th)	Number of Respondents	Percentage (%)
1	20-30th	12	33,3
2	30-40th	10	27,8
3	40-50th	10	27,8
4	50-60th	4	11,1
Total		36	100

Table 1 shows that the majority of FSWs are 20-30 years old. From the results of filling out the questionnaire, data was obtained about the final education of WPS.

Table 2. Distribution of the Latest Education Frequency WPS in Stunt Localization, Porong.

No	Education	Number of Respondents	Percentage (%)
1.	No education	4	11,1
2.	Elementary	20	55,6

School			
3.	Junior High School	10	27,7
4.	Senior High School	2	5,6
Total		36	100

In table 2 of the total respondents, data was obtained that more than 50% of WPS were educated at the end of primary school. Safe sex behavior is known from questionnaires distributed to respondents. The following is a table of safe sex behavior for female sex workers.

Table. 3 Safe Sex WPS Behavior Frequency Distribution in Stunt Localization, Porong.

No	Safe Sex Behavior	Number of Respondents	Percentage (%)
1.	Good	14	38,9
2.	Bad	22	61,1
Total		36	100

Based on the table 3 most WPS do not act safe sex when serving customers, which is 61.1%

After physical examination, vaginal swabs and blood sampling for 36 respondents in Porong Health Center, the IMS data was obtained as follows:

Table 4. Distribution of Frequency of STIs for Sex Workers in Porong Localization.

No	Type of STIs	Number of Respondents	Percentage (%)
1	Condiloma	4	11,1
2	Positive on Gram dan Gymsa examinations	32	88,8
3	Syphilis	6	16,6
Total		36	100

From the table 4 obtained data that at most positive respondents are STIs with examination of gram staining and gymsa which is as much as 88.8%.

HIV testing uses Rapid Test with blood samples. The following are data on HIV testing

Table 5. HIV Frequency Distribution of Sex Workers in Porong Localization.

No	HIV	Number of Respondents	Percentage (%)
1.	Reaktif	10	27,8
2.	Non Reaktif	26	72,2
	Total	36	100

The table 5 shows the results that there were 27.8% of female sex workers suffering from HIV.

#### IV. DISCUSSION

Application of Safe Sex Behavior with IMS. Not all of the female sex workers in Tangkis Porong Localization understand safe sex and the danger of STIs. In this study 55.5% of respondents were educated last SDd and there were only 38.9% of FSW who applied safe sex using condoms.

Based on the theory revealed by Nyagero et. Al (2012) which states that changes in behavior and factors related to female sex workers are sociodemographic factors which include age, education level, religion, marital status, number of children, length of sex work, and knowledge factors about HIV / AIDS, alternative work besides being a sex worker, not using or using condoms inconsistently.

Consistent use of condoms by FSW customers must have the support of FSW as sex partners, but there are still FSW customers who refuse to use condoms on the grounds of inconvenience and low awareness to want to use condoms as protection against STIs or HIV infection. So WPS plays a very important role, namely negotiating with customers to be willing to use condoms (Hadi, 2004).

Examination of the STI using a vaginal sample is then performed gram staining. The technique of direct examination of vaginal duh with Gram staining to identify Gram-negative diplococcal intracellular polymorphonuclear leukocytes (PMN) is a method often used in many health care laboratories. This technique is able to distinguish bacteria into two groups between Gram positive and negative. Gram-positive bacteria will appear purple while Gram-negative bacteria are red (Beveridge, 2001). Gymsa examination uses glass objects stained with giemsa or iodine solution and then examined with an ordinary light microscope. In Giemsa staining, the Inclusion Body (BI) appears intra cytoplasm of dark purple epithelial cells, whereas with iodine staining will be brown.

Symptoms of syphilis are also rarely realized by WPS because the symptoms are quite mild. In the primary phase of the wound that does not cause pain will appear where the bacteria enter the body. This usually occurs within 3 weeks of exposure, around 10-90 days. The secondary phase is characterized by the appearance of the rash for 2-12 weeks after the wound has spread and sometimes even before it heals. Other symptoms can occur, which means that the infection has spread throughout the body. While the latent phase is the phase after someone is infected with bacteria. After the rash in the secondary phase disappears, a person will not show any symptoms for some time (latent phase). This stage may occur one year or can range between 5-20 years. The most infectious stage of syphilis is the final stage. If left untreated, this final stage may appear early, which is 1 year after being infected or at any time during his life.

The risk factors for transmitting HIV / AIDS are numerous, but the main thing is sexual behavior. Other factors are parenteral transmission and a history of previous sexually transmitted infections (Lee, 2003). Inflammation and ulcers in people with STIs increase the risk of HIV infection, because the damage to the mucosal barrier makes it easier for HIV

to enter the blood vessels. In addition, STIs facilitate the HIV virus to live in the genital tract and recruit inflammation cells of the HIV virus into the genital tract.

HIV testing in this study is to use the Rapid Test which is a test with a fast way to use reagents and blood samples.

The HIV test is done quickly (Rapid Test) is a test for screening. This procedure requires a sample of blood or oral fluid to find antibodies against HIV. Test results come out about 20-30 minutes. A positive rapid test must be followed by a venous blood confirmation test performed in a laboratory. At present, there are at least four HIV rapid tests approved by the United States FDA. For all rapid tests, compliance with manufacturer's instructions is essential to ensure accurate results. Rapid test performance is generally higher when used by trained personnel. This is a factor that causes no relationship between sexual behaviors with HIV, because there is no complete blood test and ELISA (enzyme-linked immunosorbent assays).

#### V. CONCLUSION

Results of a study on 36 female sex workers, 61.1% of female sex workers did not apply safe sex so that the results of 11.1% STI examination were diagnosed with condyloma, 88.8% received positive results in gram stain and exercise tests, 16.6% were diagnosed with syphilis and 27.8% received reactive results on HIV testing

With the results of this study it is expected that the Porong Health Center is more active in conducting STI examinations, especially in vulnerable groups such as WPS. Respondents are expected to better understand more about STIs and the dangers that accompany this disease. In the next research, it is expected to conduct a more in-depth examination of HIV in FSW, including the method of examination.

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