SEXUAL BEHAVIOR AND KNOWLEDGE LEVEL OF COMMERCIAL SEX WORKERS INFLUENCE THE SPREAD OF SEXUALLY TRANSMITTED INFECTIONS

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Keywords:
Commercial Sex Workers, Sexually Transmitted Infections, Oral Cavity Lesions

ABSTRACT

Background: Sexually transmitted infections (STIs) are commonly found in commercial sex workers (CSWs) due to a lack of knowledge and bad behavior in sexual intercourse.
Method: This research was an analytical survey with a cross-sectional approach. Samples were 110 CSWs selected by simple random sampling. Chi-Square test was used to see the difference in the influence of the level of knowledge and sexual behavior on the incidence of oral cavity lesions.
Result: Lesions were found in 43.9% of respondents with a low knowledge level and 37.7% at a good knowledge level. Chi-Square test obtained a p-value of 0.328 (p> 0.05) showed that there was no difference between the knowledge level and the occurrence of lesions. Lesions were found 94.1% in respondents with bad sexual behavior and 15.8% in respondents with good sexual behavior. Chi-Square test obtained a p-value of 0.00 (p> 0.05) which means that there are significant differences between good sexual behavior respondents and bad sexual behavior respondents towards the presence of lesions.
Conclusion: ED has great impact on surface characteristics (hardness and roughness). Using expired GIC type II deal with great risk of surface deterioration when in contact with low pH level beverages.

INTRODUCTION

The lifestyle of commercial sex workers (CSWs) who are always changing partners is a very high risk of sexually transmitted infections (STIs) caused by bacteria or viruses. The enhancement of STIs can be influenced by several factors one of which is knowledge of how the STIs are transmitted, types of STIs and signs of symptoms if a person is exposed to STIs can affect sexual behavior.[1,2,3,4] STI is a disease caused by unsafe sexual intercourse, which transmits or be transmitted to their partners. STI does not only cause symptoms in the genital area but can manifest in the oral cavity. IMS manifestations in the oral cavity can be Necrotic ulcerative gingivitis, necrotic ulcerative periodontitis, linear gingival erythema, oral candidiasis, condyloma acuminate, Kaposi sarcoma, non-Hodgkin's lymphoma, oral hairy leukoplakia, gonococcal stomatitis, chancre, snail tracks, gumma.[5,6,7,8]

The number of STI cases in Central Java in 2015 was 14.302 cases, higher than in 2013 which was 10.479 cases. The number of STI cases in Semarang was 2.461 cases higher than other cities in Central Java.[9] Resocialization Argorejo was the largest resocialization in Semarang City spread from alley 1 to alley 6. Based on preliminary survey research at the non-governmental organization "Lentera Asa" Semarang in December 2017, there were around 488 prostitute women who were at the Argorejo Resocialization.[10]

The author conducted research on sexual behavior and the level of knowledge about

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STIs as a risk factor for oral lesions on CSWs in Argorejo Resocialization Semarang.

METHOD

This research is an analytic survey research with a cross-sectional study approach. This research was conducted in July 2018 at the Argorejo Resocialization of Semarang on Jalan Argorejo, Kalibanteng Kulon, West Semarang. This study was approved by the Health and Medical Research Ethics Commission of the Faculty of Dentistry, Sultan Agung Islamic University, Semarang No 018 / B.1-KEPK / SA-FKG / IV / 2018. The population in this study were commercial sex workers who settled in the Semarang Sunan Kuning localization of 488 people. The sampling technique of this study was simple random sampling. The large sample formula of this study used the Slovin formula so that after the calculation of the sample size obtained is 220 respondents. Measuring instruments in this study are questionnaires that have been tested for validity using the corrected item-total correlation test and the reliability test using the Cronbach alpha test. Data collection of oral cavity lesions by clinical examination using a mouth glass and assisted irradiation using LED ring light then lesions were recorded in the oral cavity of the subject and documented using a camera. After the data is collected univariate and bivariate statistical data were analyzed.

RESULT

The sample in this study obtained as many as 110 respondents which should have a minimum sample size of 220 respondents. This is because only 110 respondents were present and fulfill the criteria. Characteristics of CSWs in Semarang Argorejo Resocialization who were respondents in this study are shown in Table 1. The age of respondents in this study ranged from 19-47 years with an average of 31.8 ± 7.56 years. The education of respon-

Table 1 CSWs Demographic Characteristics in Argorejo Resocialization Semarang

Characteristics		Frequency	Percentage
Current age (years)			
- Min-max	19 – 47		
- Average ± standard deviasi	31.8 ± 7.56		
Education			
- No Education level		16	14.5%
- Primary School/equivalent		34	30.9%
- Junior High School/equivalent		36	32.7%
- Senior High School/equivalent		24	21.8%
Originated from Semarang City			
- Yes		58	52.7%
- No		52	47.2%
Length of Stay in Semarang city			
- < 1 year		28	25.4%
- ≥ 1 year		50	45.4%
- Since born		32	29.0%

Table 2 Univariate Analysis Results of the level of knowledge of CSW about STIs

Knowledge Level	Frequency	Precentage
- Less	41	(37.3%)
- Good	69	(62.7%)

Table 3 Results of Univariate Analysis of CSW sexual behavior towards clients

Behavior towards clients	Frequency	Precentage
- Bad	34	(30.9%)
- Good	76	(69.1%)

Table 4 The description of Relationship between CSWs' knowledge of STIs to the incidence of oral cavity lesions

			Oral Cavity Lesions exist	Oral Cavity Lesions Do not exiest
Knowledge of STIs	Less	Count	18	23
		% within Knowledge of STIs	43.9%	56.1%
	good	Count	26	43
		% within Knowledge of STIs	37.7%	62.3%

dents was dominated by junior high school/ equivalent level, 32.7%. The number of respondents originating from the city of Semarang and outside the city of Semarang is almost the same, as many as 52.3% and 47.7%. Most respondents who lived in the city of Semarang for more than 1 year were 45.9%. 62.7% of respondents had a good level of knowledge about STIs and 37.3% of respondents with a lack of level of knowledge (Table 2). 69.1% of respondents had good sexual behavior, while 30.9% of respondents had bad sexual behavior (Table 3).

Clinical observations of the oral cavity found suspect candidiasis in 28 cases, ulcers in 11 cases, suspect Lining Gingiva Erythema in 3 cases, suspect Kaposi sarcoma in 1 case and oral hairy leukoplakia in 1 case (Figure 1). Respondents with a lack of knowledge found 43.9% had oral cavity lesions, while respondents who had a good level of knowledge had oral cavity lesions. Chi-Square test obtained a p-value of 0.328 (p> 0.05) showed that there was no difference between lack of knowledge of STIs and good STI knowledge of the occurrence of oral cavity lesions. Respondents with bad sexual behavior were found to have oral cavity lesions as many as 94.1%. While respondents with good sexual behavior showed an oral cavity lesion of 15.8%. Chi-Square test results obtained a p-value of 0.00 (p> 0.05) which means that there are significant differ-

Table 5 The description of the Relationship between CSW Sexual Behavior to the incidence of oral cavity lesions

			Lesi Rongga Mulut ada	Lesi Rongga Mulut tidak ada
Sexual Behavior	Bad	Count	32	2
		% within Sexual Behavior	94.1%	5.9%
	Good	Count	12	64
		% within Sexual Behavior	15.8%	84.2%

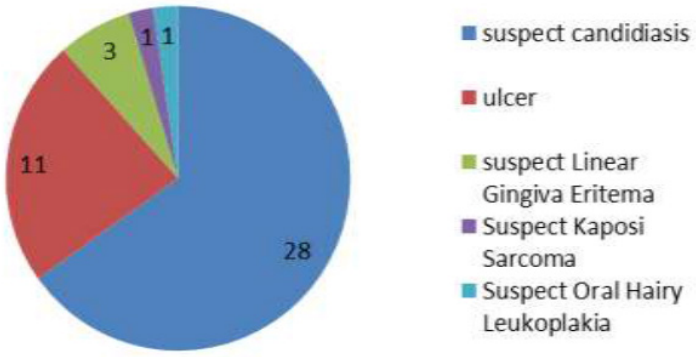

Figure 1 The Discovered of Oral Cavity Lesions

ences between respondents with good sexual behavior and bad sexual behavior towards the occurrence of oral lesions.

DISCUSSION

The most common feature of oral lesions found in this study was suspect candidiasis in 28 cases. This lesion is the highest prevalence of other lesions associated with sexually transmitted infections. The results of research conducted by Rahmayanti (2013) showed that oral lesions that are often found in HIV patients are oral candidiasis. A recent study conducted by Muralidharan (2018) showed that commercial sex workers in the City of Pune India found 31.4% of cases of oral hairy leukoplakia and 11.7% of cases of candidiasis. In a study conducted by Agita (2011) conducted at Dr. Kariadi Semarang showed 79% of candidiasis found in patients with HIV / AIDS. The HIV virus will attack the human immune system, especially CD-4 cells so that there can be a decrease in the immune system which will make it vulnerable to exposure to other diseases. Opportunistic infections generally occur when the CD4 cell count <200 cells / mm.[11,12]

The other lesions associated with STIs found in this study include ulcers, suspect Linear Gingival Erythema (LGE), suspect Kaposi sarcoma and Oral hairy leukoplakia. Ucler's case ranks the second highest prevalence found after suspect candidiasis. Ulcers can be caused by syphilis or gonorrhea. Ulcers caused by syphilis or called chancre are accompanied by indurations, redness on the edges and surface covered by serous fluid while ulcers caused by gonorrhea are characterized by a gray, dirty, and well-defined ulcer base. [7,8]

Linear Gingival Erythema is an infection in people with immunosuppressed characterized by red patches along the edge of the gingiva. Kaposi sarcoma caused by KSHV or Kaposi sarcoma herpes virus is a soft tissue malignancy derived from cell proliferation originating from blood vessel endothelial cells. Oral hairy leukoplakia is an epithelial cell hyperplasia disorder caused by the Epstein-Bar virus. [13,14,15]

The knowledge of CSWs in Argorejo Resocialization of Semarang city in this study was mostly quite good and the Chi-Square test results meant that there was no difference between the level of insufficient STI knowledge and the level of STI knowledge both of the occurrence of oral lesions. This shows that good knowledge does not affect the occurrence of oral cavity lesions and vice versa. This is because that CSWs who have good STI knowledge do not necessarily have good sexual behavior. Knowledge is one of the factors that can influence human behavior, but there are still many other factors that can affect human

behavior, including economic and environmental factors.[14]

Knowledge of CSWs is strongly influenced by the presence of health workers and related non-governmental organizations (NGOs). These officers not only provide counseling as information that will be received by CSWs, but the information provided must also be able to provide clear and detailed information so that it can affect daily behavior.[16]

The sexual behavior of CSWs in Argorejo Resocialization of Semarang city in this study was largely quite good. But there are still CSWs Argorejo Resocialization of Semarang city who have bad sexual behavior. Chi-Square test results have the meaning that there are significant differences between good sexual behavior with bad sexual behavior towards the occurrence of oral cavity lesions. This shows that bad sexual behavior has a greater effect on the incidence of oral cavity lesions compared with good sexual behavior. The behavior of someone can be influenced by external factors, one of them is socio-economic factors. In a study conducted by Saefulloh et al. (2017) found that sexual behavior is influenced by economic factors, where the risks regarding health problems to be experienced are ignored by the society rather than having to experience difficulties in the family economy. The low socio-economic factors of CSWs make them want to behave whatever their clients want in the hope of receiving greater rewards so that despite having sufficient knowledge about STIs, there are still CSWs who acts bad sexual behavior and can potentially cause oral cavity lesions.[17, 18 , 19]

CONCLUSION

1. In this study found oral cavity lesions associated with STIs in CSWs in Sunan Kuning localization of Semarang, there are Suspect Candidiasis, ulcers, Suspect Linear Gingival Erythema (LGE), Kaposi Sarcoma Suspension and Oral Hairy Leukoplakia.
2. The level of knowledge about STIs for commercial sex workers is not a risk factor for oral cavity lesions associated with STIs.
3. The sexual behavior of commercial sex workers is a risk factor for oral lesions associated with STIs.

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