

The influence of perception and peer support on STI prevention behavior (syphilis case study) in group of MSM at veterans STI-VCT clinic in Medan year 2016

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Abstract. According to Behavioral and Biological Integrated Surveillance (BBIS) in Indonesia, 2011, there was an increase in syphilis surveillance in men who like to commit sexual intercourse with other men (MSM). It was 13% of the 3% in BBIS 2007 in bad STI prevention behavior. There were 478 MSM have visited STI-VCT clinic in Medan throughout 2015, and syphilis-infected 59 men. This study aims to analyze the influence of perception and peer support on prevention of STI in MSM at Veteran STI-VCT Clinic in Medan, 2016. It was a mixed method quantitative and qualitative study with the cross-sectional approach, enrolled 50 respondents. Data were collected and analyzed with SPSS 19. There was the influence of perception and peer support on STI prevention behavior of MSM group at STI-VCT Veteran Clinic in Medan.

1. Introduction

Syphilis is one of the most common STI in addition to HIV-AIDS, gonorrhea, *ulcus molle*, *lymphogranulomavenereum*, *granuloma inguinale*, *condyloma*, *herpes inguinal*, candidiasis, *trichomoniasis*, bacterial vaginitis, and hepatitis. According to WHO 2011, about 12 million new cases of syphilis happen in all of the worlds, two-thirds happen in Sub SaharaAfrica and East Asia. The number of new cases continues to rise sharply¹. The Centers for Disease Control and Prevention (CDC) estimated about 55,400 people suffer from new syphilis infection every year, 13,970 was in the primary and second stage, this is the most potential stage oftransmitting to others².

Bacteria named *Treponema pallidum* causes syphilis, it can enter the human body through mucosalmembranes suchas the vagina, mouth, or skin. Syphilis can be transmitted from one person to anotherthrough genito-genital, urogenital, anogenital sexual intercourse, and also from mother to child transmission during pregnancy³.Data obtained from the Health Ministry of Indonesia through BBIS (2011), syphilis suffered by her male 25%, male sex male (MSM) 10%, commercial sexual worker 10%, indirect sexual worker 3%, and prisoner 3%.Most of them do not wear condoms, only 11.1% until 32.3% are using condom^{4,5,6}. Low condom use in every sexual behavior among MSM leads to high rates of syphilis transmission in those groups. Based on the sexually transmitted infection (STI) report of the health offices Medan city 2014, there was an increase in the number of visits to STI services in the group of MSM, recorded by 700 in 2013 to 1,004 by 2014⁷. There was an increase in STI diagnoses based on laboratory examinations from 321 people in 2013 to 460 in 2014 where the highest case was syphilis as many as 147 people (32%). This number continues to increase in 2015, obtained 1055 MSM came to the clinic, and 515 (48.82%) of them suffer from STI.The increased number of cases of immunology in



MSM is due to risky sexual behaviors such as anal sex and multi partners, whereas STI prevention behavior is bad, inconsistent using condoms. Research says that anal sex is at more risk than oral and vaginal because the rectal mucosa is so thin that it is easy to injury and infection⁷. Based on a preliminary survey in November 2015 at 10 MSM who came to STI-VCT Veteran clinic, 8 (80%) of them positively infected with syphilis, ranging from 16-45 years. Entirely active in sexual intercourse with more than one person in the last three months, with a variety of sexual relationships, of whom 4 have sexual intercourse with women as well as men. These tenths of MSM do not use condoms during sexual intercourse through the anus, vaginal, and oral. They have good knowledge about STI prevention. But, they ignore it for a variety of reasons, 7 (70%) of them say they do not get sexual satisfaction from their permanent partner, so they have more than one sexual partner, 3 (30%) of them claiming to be unfaithful for economic reasons. They are all reluctant to wear condoms because they reduce the pleasure of sexual intercourse, 4 (40%) of them say they are having sex more than one partner and not using condoms because they believe syphilis can be treated easily based on their friends' experience.

2. Methods

It was a mixed method quantitative and qualitative study of the cross sectional approach. This research was conducted at Veteran STI-VCT clinic in Medan because this clinic is STI-VCT clinic which serves information education communication for a group of people who have risky sex behavior such as MSM. This research conducted in January until February 2016. The study population was all MSM who came to visit the Veteran IST-VCT clinic and diagnosed with Syphilis during 2015; there were 103 people. Research sample obtained by using *Lemeshow* formula obtained 50 respondents. Probability sampling determines sampling technique by drawing, while the sample for qualitative research based on the principle of conformity and adequacy of qualitative⁸. Primary data for quantitative research obtained from the respondent's answer to the questionnaire consisting of 20 questions for perception, 15 questions for peer friend support, where all of these questions have been tested for validity and reliability, and for qualitative research data obtained from in-depth interviews. The data were analyzed using inferential statistical analysis for quantitative research and textual analysis for qualitative. Multivariate analysis is used to see the influence of each independent variable and together to the dependent variable, and also to find which variable is most influential by using Multiple Logistic Regression Analysis test at significance level $p\text{-value} < 0.05$.

3. Results

This study enrolled 50 respondents showed that most respondents were aged >20 years as many as 42 people (84%). Mostly educated high school graduates as many as 33 people (66%) and undergraduate only 17 people (34%). They work as employees of 32 people (64%) or entrepreneurs as many as 12 people (24%). Six people (12%) are not working, most of them do not marry as many as 46 people (92%), sources of information about prevention STI obtained from 42% of health workers, 38% from the internet, 10% from friends (Table 1).

Table 1. Distribution of characteristic of respondents at veteran STI-VCT clinic in Medan.

Category	Frequency	Percentage(%)
Age		
< 20 y.o.	8	16.0
> 20 y.o.	42	84.0
Education		
High School	33	66.0
Bachelor	17	34.0
Work		
No work	6	12.0
Entrepreneur	12	24.0
Employee	32	64.0

Marital Status		
Married	4	8.0
Single	46	92.0
Source of information		
Friends	10	20.0
Internet	19	38.0
Health Worker	21	42.0

Chi-square statistical test of perception of the respondent with the behavior prevention of transmission of sexually transmitted infection (a case study of syphilis) with significance level 95% obtained. P-Value = 0.018 (<0.05) indicate that there is a relation of perception to the prevention of transmission of STI (syphilis case study) STI in Veteran STI-VCT Clinic in 2016. Respondents whose perceptions were negative had more not good prevention behavior of STI (58%) than those with positive perceptions (24%) (Table 2).

Table 2. Cross tab perception with prevention transmission of STI (syphilis).

Perception	Prevention of STI transmission (syphilis)				Number		p
	Not Good		Good				Sig.
	n	%	n	%	n	%	
Negative	29	58.0	2	4.0	31	62.0	0.018
Positive	12	24.0	7	14.0	19	38.0	
Total	41	82.0	9	18.0	50	100.0	

Chi-square statistic test of peer support with prevention behavior of transmission of sexually transmitted infection (a case study of syphilis) with the level of meaning 95% obtained value $p = 0.002$ (<0.05) indicate that there is peer support relationship to the prevention of transmission of STI (syphilis case study). Respondents who received poor support had worse sexually transmitted disease prevention (58%) than respondents who received good support (24%) (Table 3).

Table 3. Cross tab peer support with prevention transmission of STI (syphilis).

Peer Support	Prevention of STI transmission (syphilis)				Number		p
	Not Good		Good				Sig.
	n	%	n	%	n	%	
Not Good	29	58.0	1	2.0	30	60.0	0.002
Good	12	24.0	3	14.0	19	40.0	
Total	41	82.0	9	18.0	50	100.0	

Multiple Logistic Regression Test showed that there is Influence of Perception on Prevention of Transmission of STI (Syphilis) with a value of $\exp(B) = 17.073$. Meaning that positive perceptive respondent has 17 times greater chance of prevention behavior of STI (syphilis) compared to respondent having a negative perception and for the peer support value of $\exp(B) = 35.957$. Meaning that respondents who have good peer friend support have 36 times greater chance of prevention behavior of transmission of STI (Syphilis).

Table 4. Multiple logistic regression test result of perception and peer support on prevention of STI (Syphilis) transmission at Veterans STI-VCT Clinic in Medan 2016.

Variable	B	df	Exp(B)	Sig
Perception	2.836	1	17,043	0,009
Peer Support	3,582	1	35,957	0,005

The results of qualitative research obtained from textual analysis of in-depth interviews to 3 MSM as informants seemed to support and strengthen the results of qualitative research.

4. Discussion

The behavior of STI transmission prevention will arise if a person feels that he or she is at risk for the disease. Concentration is a subjective condition so individual acceptance especially high-risk people for susceptibility to syphilis infected can vary. MSM can be stated to have a very strong perception of syphilis what if he has a belief that he is at risk of syphilis, and has a friend or partner who is infected with syphilis or has a history of behavior that is at risk for contracting syphilis. MSM who have a very strong perception of susceptibility to syphilis may be prompted to prevent STI (syphilis). In this study found most MSM had a strong perception of susceptibility to syphilis because they felt they had a risk factor for contracting syphilis, but did not prevent the transmission of STIs (syphilis). This fact is in line with the research of Lakalolo ten case studies of indirect sex worker sexual behavior in the prevention of STIs, HIV-Aids at pubs and karaoke, cafes and discotheques in Semarang⁹.

Although perceptions of respondent susceptibility in this study are quite strong, the perception variable is not the most dominant factor affecting the prevention behavior of STI transmission. Djateto defines social support as support or assistance from others such as friends, neighbors, co-workers, and others. Results of research conducted Khotimah on sex workers in Porong, Banyuwangi district in 2011 showed most respondents said important people as a reference that can provide support are health workers "mami" or pimps, NGOs and friends fellow sexual workers¹¹.

It is necessary to develop various health promotion based programs that directly or indirectly deal with the prevention of STIs. Mapping the most frequently accessed source of information by MSM groups to more effective and targeted information. Increasing frequency of health promotion to the target group is a method selection, an attractive development media, and interactive health promotion by the needs of the target. Extending the reach of information on STI prevention by utilizing social media and special internet sites of MSM community, health promotion materials directed to change the perception of MSM on hazards, prevention, and treatment of STIs.

Due to the strong influence of friends is on STI prevention behavior. It is necessary to do some intervention by involving all related parties such as improvement of NGO empowerment as a form of social support for MSM. Through the effort of procurement health promotion media about reproduction health, prevention and handling of IMS that channeled to NGO and training KIE and counseling for NGO managers: Implementation of training for LSL group peer groups.

5. Conclusion

There is the influence of perception and peer support on STI prevention behavior (syphilis) in MSM group at Veteran IMS-VCT Clinic in Medan City in 2016. Peer support is the most dominant variable affecting STI prevention (Syphilis), having good peer support and positive perception have 36 times and 17 times greater chance of preventing transmission of STI (Syphilis).

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