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SELF-INTERNALIZATION FACTORS FOR CONDOM USE AMONG COMMERCIAL SEX WORKERS (CSW) IN PREVENTING HIV / AIDS TRANSMISSION

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ABSTRACT

Background: *The existence of localizations of commercial sex worker (CSW) may increase the HIV/AIDS cases. It might be due to individual's perception to prevent HIV/AIDS transmission remains low. STI (Sexually Transmitted Infections) such as Gonorrhoea and Chlamydia are the diseases which is caused of sexual intercourse. This study aims to describe the internalizations factors to apply condom as the preventive approaches and to investigate the correlation between cognitive level and attitude with condom application.*

Methodology: *This descriptive cross-sectional study was enrolled by 65 of 258 CSW's clients in Sadar alley, Banyumas Regency, Indonesia. Accidental sampling was used to select the respondents. Inclusion criteria were CSW's clients, willing to be respondents, and had sexual intercourse in the alley. The dependent variable was condom application and the independent variables were cognitive level and attitude. The data analysis was done by Spearman Rank.*

Results: *More than a half of respondents had a good cognitive level to prevent HIV/AIDS transmission and more than three fourth had a support attitude. Among 65 respondents, 48 of them had intention to use condom. The cognitive level and attitude were found with strong correlation with condom applications ($p < 0.001$).*

Conclusions: *Cognitive level and attitude had an important role related to condom applications. Public health promotor should take an action to educate CSW and CSW's clients to prevent HIV/AIDS transmission.*

Keyword: *HIV/AIDS, Attitude, Cognitive Level, Condom Application*

INTRODUCTION

Human Immunodeficiency Virus (HIV) is a virus causing Acquired Immunodeficiency Syndrome (AIDS), a global health problem both for advanced countries and developing countries. It is transmitted through blood of the sufferers via blood transfusion, collective syringe uses, and sexual intercourse for both homosexual and heterosexuals (1). According to WHO, 36,7 billion people living with HIV/AIDS in the end of 2016, there were 1.8 billion new sufferers with percentage of adult sufferers 53% with death rate in 2016 as many as 1 billion deaths (2). In Indonesia, new cases of positive HIV have been reported annually with increasing tendency. Then, in 2016, it was reported as many as 41,250 cases and higher new percentage of positive HIV and AIDS occurrence in 2016 for men than women (3).

This HIV prevalence in Indonesia commonly occurred on high risk groups, such as CSW. Percentages of highest risk of HIV are heterosexual sexual intercourse (53%), homosexual (35%), syringe uses (1%), and others (11%). According to 2016's report, there were 217 new cases (35.08%). Those increased in

accordance to unsafe sexual habit, such as without applying condom. This habit influences HIV/AIDS transmission or other contagious sex diseases (3). In Central Java, in 2016, there were 1,867 HIV cases (39.84%) and 1,402 AIDS cases. In 2016, in Banyumas, it was on the third rank in Central Java to have the most bearable AIDS cases with 163 cases. (4).

Self-conception plays important role to develop self images by creating them fragile or by buffering them to standar social internalization from attractiveness. Commonly, males are more conformist, ignorant to public show, and emphasizing themselves on their weight which may lead to social standar internalization of attractiveness (5). Self-internalization may be influenced by self-images and unsatisfaction to his ownself (6). Integrated organimistic theory about self-internalization discusses internalization process as extrinsic motive. It focuses on internalization continuum, started from external rules to introjection (i.e., being involved to avoid any guilty feeling or agreement), identification, and integration. The realizations of the regulation are simultaneously operatable, different relative autonomy to their most autonomous realization. It means, an individual may internalize and integrate practices or values if they experience such related choice, its involved success, and correlation to people delivering it. Besides that, orientation of casuality theory about self-internalization is also used to explain how prime numbers or stimuli before activating certain orientation on an individual and influences of subsequent motivation. Fourth, basic psychology need theory explains self-concept as basic needs to connect them directly to health (7).

According to dictionary, interest or will is defined as higher tendency to certain demand. Interest or will in behaving is how an individual behaves to obey or disobey. Applying condom is applicable for both CSW both male and females and their clients to prevent or decrease sexual disease transmission caused by sexual intercourse (8). CSW is a job where a female exploits her body to earn money leading to many contagious sexual diseases (1). Low level of condom applications of CSW may spread HIV cases. According to previous study, it showed HIV distribution would not decrease until high risk group behaviors were monitored (9).

Various sexual diseases may be triggered by sexual intercourse, such as IMS. Women are fragile to be infected since they are more responsive to inflammation. It leads to higher possibility of HIV infection. Gonorrhoea and chlamydia are triggered by high concentration of leukocytes within genital tract causing greater HIV shedding. Besides that, vaginosis bacteria increase HIV viral shedding to six times greater. Syphilis is correlated to HIV. It is caused by blood plasma within genital tract; higher concentration HIV blood plasma – 0.22 of previously log score higher before treatment. Syphilis is correlated to decrements of CD4 amounts. Besides that, to cure syphilis may done by improving viral load of blood plasma and CD4 cells. In contrast, human papillomavirus (HPV) may also be a factor caused by high rate of sexual intercourse by inflammation on genital compartment and is not related to HIV (10). Decreasing HIV transmission may be done by promoting safe sexual function works for CSW and their clients. It is important component to achieve preventing serice for everyone. This review proves modality of current existing preventions may be combined and applied to suppress HIV transmission risk on CSW around the world (11).

Prevention and treatment of HIV/AIDS are still dangerous for national assumption. The consequence to take is not only for certain institutions but also for everyone. The current challenge is to solve the emptiness, recognizing the problem, and starting to move forward in developing and promoting prevention and treatment programs (12). Based on preliminary study through interview to the clients, 7 out of 10 males said to rarely apply condom while having sex since they did not feel any joyment. CSW in Banyumas are spread to various places, such as alley Sadar, karaoke place, coffee, dimming place such as foodstall and even on roads. Study in China by taking homosexual population with IMS prevalence showed few improvement of IMS prevalence in MSH community from 2004 to 2006. This increasing number was entailed by increasing number of syphilis cases and contagious sexual diseases as well as prevalence of sexual intercourse couples (13).

Sexual works may vary and occur in various context in the world. Although several women sell sex through formal structures such as brothel or other places. Some of them may be independently working and ask their clients directly in front of public or via cellular phones and internets, but some of them have places (11). Sadar alley is a localization and prostitution place in Baturaden district whose many tourism objects and small hotels to rent. The CSW of the alley do not stay in one place. According to previous study conducted on its pimps, Sadar alley is only place for localization. The pimps are the house owners to trade the CSW and the CSW are free to come anytime. The pimps provided condom when there were clinets who wanted to use it. However, the pimps did not really recommend it (12). According to Banyumas Government Rule Number 14 Year 2015 about HIV and AIDS preventions in article 12 paragraph (1) states to prevent HIV and AIDS transmission through syringe and sexual intercoruses, there is a need to change high risk group's behaviors. As explained by article 1 paragraph 15, high risk group is invidiual or institution who are in condition and capacity to determine success of HIV and AIDS prevention efforts, among infected people and their families, CSW, clients of CSW, free sex behaviors, and syringed drugs (14).

METHODS

This descriptive analytic research with *cross sectional* design took CSW clients of Sadar alley daily. It was estimated there were 258 visitors with estimated respondents 65 people. The sample was clients of CSW. The technique to collect data was *accidental sampling* and CSW clients who met inclusive and exclusive criteria. The inclusive criteria are clients of CSW, willing to be respodnents, and clients who had sexual intercourse in the alley. The exclusive criteria were clients who could not read, clients who brought CSW outside of Sadar alley, and clients who were listed in previous respondent list. The independent variable is cognition and attitude levels. The dependent variable is interest of applying condom in preventing HIV/AIDS. The instruments were questionnaire sheet. Time of data analysis test was Spearman Rank. This research was done on April 2018. The scope of the research was in Sadar alley, Baturraden, Banyumas Regency. Ethical clearance was issued by Ethical Commission of Health Research of Health Polytechnic of Ministry of Health Semarang with number: 257/KEPK/Poltekkes-Smg/EC/2018 and fulfilled the requirements.

RESULTS AND DISCUSSION

Result

Frequency Distribution of CSW Clients' Cognitive Level

An individual's cognition may change and develop in accordance to ability, need, experience, and level of morbidity of material information about the environment (15). Effort of giving information has been done by health parties in the form of socialization in large scale, such as socialization about HIV/AIDS to society and declaring regent's decision about HIV/AIDS in 2015. Commonly, higher education background of an individual facilitates information receptions and implementation of the knowledge. Then, high educational background of mature respondents were expected to ease in receiving information (14). Study by Irwan Budiono (2012), about predisposition factors which influenced practices of IMS and HIV/AIDS, and CSW attitudes to condom application. The possible factor to influence the application of condom is access about IMS and HIV/AIDS. Meanwhile, the supportive factor was clients' perceptions about capability to have safe sex behaviors and support from pimps to apply condome for both CSW and their clients. Therefore, cognition lvl of the clients about HIV/AIDS and condom could be done by health promotion (16). Cognitive level of respondents were based on 15 question about HIV/AIDS definitions, their transmission, their causes, and risky groups, symptomps, and HIV/AIDS preventions. The findings showed cognitive level of 43 clients (66%) had proper cognitive level. In general, the respondents had good educational background so it could influence their responses to external matters. High educated individuals would provide more rational to think about any incoming information and could think further about in what point he had benefits of the information

(16). Table 1.1 describes in detail the percentage of cognitive level of condom application by CSW clients to prevent HIV/AIDS.

Table 1.1 Frequency Distribution of Condom Application Cognitive level of CSW Clients to Prevent HIV/AIDS Transmissions

Cognitive Level	Frequency	%
Poor	12	18.5
Sufficient	10	15.4
Good	43	66.1
Total	65	100

Notes :

- * Poor cognitive level: when the respondents had < 6 correct answers from 15 questions (<56%), sufficient: when the respondents had ≥ 6 – 8 correct answers (57-75%), and good: when the respondents had ≥ 8 correct answers (76-100%).

Frequency Distribution based on Condom Application Attitudes of CSW Clients

Attitude is the most important concept in social psychology which discusses proper attitude elements as individuals or group (16). It is an order of affection, an individual's thought in social interacting. According to Roy Chan, Wong, Lee, Koh, and Wong in Irwan Budiono (2012) about consistency of condom application by CSW in Singapore showed the CSWs were intervened by negotiating skill to persuade condom application, to give motivation to peers, and to promote condom application. It had significant difference in persuading their client to apply condom and had twice better skills to deny sexual intercourse without condom. Besides that, cooperation of CSW is needed to persuade clients in applying condom since the beginning or consistently during sexual intercourse or to decline sexual intercourse when the clients did not want to use condom (17). According to Lipovsek *et al* in Hanny Fadiyah and Kemal N. Siregar (2012) correlation between condom application on last sex to consistent application when a program occurred could increase intention of the clients to apply condom (18).

Besides that, according to Paramasty and Priya in Hanny Fadiyah and Kemal N. Siregar (2012) about consistency of condom application of CSW in 10 cities in Indonesia, besides research done in Localization place in Banyuwangi 2008, concluded that ability to offer condom was still low due to inappropriate promoting media to localization needs. Thus, promoting media have important role to influence IMS and HIV/AIDS transmission cases as for example might be conducted by involving CSW to improve condom application consistency. So that, CSW clients who had wanted to apply condom because of condom use program (18). According to Azwar Saifuddin something which had been experienced or was being experienced would develop and influence appreciation to social stimulus. Responses will become a basic realization of attitude. Being able to have response and appreciation may be achieved when an individual have correlated experience to psychological objects (19).

Cultural influences where human live in it have roles to individual's development. When an individual lives within free from norm environment, such as heterosexual interaction, it may support the individual's attitude to do such interaction. Unconsciously, culture instills directional attitude to various problems. Culture has coloured attitudes of society members. Culture also gives experience patterns to each individual. Mass media also influences in developing attitudes within its role as communication meant. Mass media also brings messages consisting of directive suggestions to guide an individual's opinion. The existence of new information about certain thing provides new cognitive base to develop such attitude (19).

The assessed respondents' attitudes cover about disease, prevention, transmission of HIV/AIDS, obedience of applying condom. It was known that most of CSW clients had supportive attitudes to use

condom during sexual intercourse with total 50 respondents (76.9%). Table 1.2 describes in detail the percentage of condom application attitudes of the clients as effort to prevent HIV/AIDS

Table 1.2 Frequency based Condom Application Attitudes of CSW Clients as Effort to Prevent HIV/AIDS Transmissions

Attitudes	Frequency	%
Support	50	76,9
Not Support	15	24,1
Total	100	100

Notes :

- * Supportive attitude: when respondents had ≥ 4 correct answers from 9 question or reaching score ≥ 14 ($\geq 78\%$); Not supportive: when the respondents had < 4 correct answers or score < 14 ($< 78\%$)

Frequency Distribution of Condom Application Intention of CSW Clients

Intention is function of two basic determinants: an individual's attitude to behavior (personal aspect) and perception of individual to social pressure to do or not to do. Based on theory of planned behavioural (TPB), attitude is influenced by intention in concuming Fe tablet. Intention is influenced by attitude, subjective norm, and conscious control attitude. Intention in Indonesian-English dictionary by Echolas & Sadili means profit or intentional purposes, called as intention (20) Snehandu B. Kar Theory about behavioral intention which refers to an individual's intention to act in accordance to health or health treatment (21). It is strengthened by Jing Gu., Joseph TF, Lau *et al* stating that TPB was useful to understand attitudes of condom application of promoted commercial sex (22). Behavioran intention is intention to promote sustainable health which allows improvement of such action (Albery & Munafo, 2011). Intention is set of belief (20).

According to Albery & Munafo (2011), Intention is determined by attitude, subjective norms, and conscious attitude control. The tendency to act or not to act, this intention is determined by the individual's choice to do certain action and gaining support from influential person. According to Arum & Mangkunegara (2010) there was indication of degree of planning by an individual to his future actions and described how hard an individual tried and thought to be realized into their attitudes, so it was concluded that an individual's intention could emerge due to various supportive factors (23).

The assessed intention was only intention to apply condom. The findings can be noticed that most of the clients had such intention with total 48 respondents (74%). Table 1.3 describes in detail the percentage of condom application of the clients as effort to prevent HIV/AIDS transmissions.

Table 1.3 Frequency Distribution of Condom Application Intention of the Clients as Effort to Prevent HIV/AIDS Transmissions

Condom Application	Frequency	%
Having no intention	17	26,2
Having intention	48	73,8
Total	65	100

Correlation of the Cognitive Level to Intention of Condom Application by the Clients as Efforts to Prevent HIV/AIDS Transmissions

Statistical analysis result shows meaningful correlation between the cognitive level to the intention of the clients as efforts to prevent HIV/AIDS transmissions. It proved that information about condom application to HIV/AIDS preventions had been better. Source of health information could be gained from medical workers, society, mass media such as newspapers and other printed media (24). Bivariate test result of the cognitive level and the intention is presented in Table 1.4. The proportion of cognitive level was good with intention of applying condom about 41 respondents (95.3%). Meanwhile, the

intention of not willing to apply condom consisted of 17 respondents (26.2%). Based on Spearman rank test, p value is 0.000 (p value < 0.10), showing meaningful correlation between the cognitive level to the intention of the clients. The correlative coefficient score is 0.697, showing strong and positive correlation. Based on the findings, Spearman rank test shows p value 0.000. It described higher educational background influenced cognitive level. The respondents with high educational background had better knowledge. This condition is in line with Shinta et al (2005), finding poor educational background of a society influenced to poor cognitive level (25).

Table 1.4 Correlation between Cognitive Levels to Intention of Applying Condom of the Clients as Effort to Prevent HIV/AIDS Transmissions

		Intention		Correlative Coefficient ®	p-value
		Having intention	no Having intenton		
Cognitive Level	Poor	11 (91.7%)	1 (8.3%)	0.697	0.000
	Sufficient	4 (40.0%)	6 (60.0%)		
	Good	2 (4.7%)	41 (95.3%)		
Total		17 (26.2%)	48 (73.8%)		

Correlation of Attitude to Condom Application Intention of the Clients as Effort to Prevent HIV/AIDS Transmissions

The result of statistical analysis gained meaningful correlation between the attitudes to HIV/AIDS transmission preventing efforts. It described how respondents understood about the intention. The cognitive level of an individual was influenced by background and learning process. Bivariate analysis result between attitude and the intention is presented in Table 1.5. It gained supportive proportion with higher intention of condom application from 42 respondents (84%). Meanwhile, those who did not support consisted of 8 respondents (26%). Based on Spearman rank test, it gains p value 0.000 (p value < 0.10), showing meaningful correlation between cognitive level and the intention. Score of correlative coefficient is 0.492, showing positive and strong correlation. It is known that statistical test by using Spearman shows p-value 0.000.

Table 1.5 Correlation of Attitude and Condom Application Intention of the Clients as Effort to Prevent HIV/AIDS Transmissions

		Intention		Correlation Coefficient (r)	Value P	
		Not	Intention			
Attitude	Does Support	Not	9 (60%)	6 (40%)	0.492	0.000
	Supports		8 (16%)	42 (84%)		
Total			17 (26%)	48 (74%)		

Based on the results of the Spearman rank test above, a p value of 0.000 (p value < 0.10) was obtained, indicating that there is significant correlation between the level of knowledge and intention of condom application of sex worker customers. The correlative coefficient value of 0.492 shows positive correlative direction with high strength of the relationship. Based on the research that has been done, it can be seen that the results of statistical tests using the Spearman Rank test is p-value 0.000.

DISCUSSION

Frequency distribution of respondents' cognitive level showed most of them had proper education about condom application as effort to prevent HIV/AIDS transmission. Frequency distribution of the respondents' attitudes showed most of them supporting condom application. Frequency distribution of the respondents' intention showed most of them had intention to apply condom. It proved there was influence of cognitive level and attitude to intention.

The test result shows p-value is lesser than α (0.05), so H_0 is denied and H_a is accepted. Then, it is concluded there was correlation between cognitive level to the intention. It is supported by correct answers of the questionnaire about cognitive level. It shows that the clients had proper knowledge about HIV/AIDS transmission. Cognition or knowledge is considered as meant to solve problems faced by humans. Through knowledge, human tends to seek solving tool to handle their problems, especially dealing with HIV/AIDS transmissions. Thus, they will seek deeper knowledge about them through condom application although they have habits of buying sex. It is in line with Kanti Litahayu (2014) stating that cognition level of an individual influenced his attitudes. Therefore, the individual is called to have intention (26).

According to Health Department, counseling has purpose to decrease society's stigma about HIV/AIDS by providing psychological support, information, HIV/AIDS knowledge, their transmission prevention, to promote responsible attitudes, to cure ARV and to ensure problem solving of various problems related to HIV/AIDS. So, society will more understand about HIV. Health department needs to promote health to prevent HIV/AIDS as early as possible. It is expected that higher cognition level of an individual influences his attitudes as stated by Theory of Reason Action.

Study by Farakanti Mumtaz (2015) also showed cognitive level of an individual influenced his intention in behaving. Thus, cognitive level becomes an important aspect for someone before doing something. Current problems within society is their ignorancy to the importance of health in preventing being infected by HIV/AIDS while applying condom during unsafe sexual intercourse. Cognitive level of CSW clients will influence their intention so there is a need for government to promote about health to society (25).

The test shows p-value is lesser than α (0.05). Therefore, H_0 is denied and H_a is accepted. It is concluded there was correlation of attitude to the intention of the CSW. It is supported by correct answers about cognitive level, showing several CSW clients to have applied condom as effort to prevent HIV/AIDS transmission. The first component refers to attitudes to behaviors. This attitude assess the advantage and disadvantage of the behavior. It lead to the clients' consideration in applying condom. In reasoned action theory or TRA, it stated that each attitude influenced behavior through reasoned and investigated decision making process, and its impacts were limited on three things. Behavior is not only determined by common attitudes but also specific attitude toward something. As for example, it is to support or not support the application of condom. According to TRA from Fishbein and Aizen, an individual's action is a realization of intention to act. The influential factors are action and subjective norms of the clients. It deals with an individual's perception whether other individual is considered important to influence him. It is supported that CSW could persuade and influence the clients to apply condom (20). Besides attitudes and intention of the clients, project of providing condom for CSW around the world shows reliability in improving condom application to suppress IMS and HIV transmission (11). According to Murwanto Sigit (2010) an individual's attitude would influence his intention to buy product, proven by correlative coefficient 0.597. Thus, it is true when attitude influences intention of an individual in doing something as TRA stated and previous study (27).

CONCLUSION AND SUGGESTION

The Spearman Rank test shows p-value 0.000 (p-value lesser than 0.005); then there was correlation between cognitive level to the intention of applying condom by the clients as effort to prevent HIV/AIDS

transmission. It is also concluded that there was correlation between the attitude to intention of applying condom of the clients as effort to prevent HIV/AIDS transmissions. Further reseaches are expected to add other variables on the given questionnaire to CSW clients and to conduct extended investigation comprehensively through direct observation about the behavior of CSW clients and or to add more instruments as supports.

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