

# FACTORS INFLUENCING CONDOM USE BEHAVIOUR AMONG INJECTING DRUG USERS (IDUS) IN SEMARANG, CENTRAL JAVA

## *Faktor Yang Mempengaruhi Penggunaan Kondom Pada Pengguna Narkoba Suntik(Penasun) Di Semarang, Jawa Tengah*

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### Abstrak

*Latar Belakang* : Hubungan seks telah diidentifikasi sebagai sumber utama penularan HIV dari pengguna narkoba suntik (penasun) untuk pasangan seksual mereka. Studi sebelumnya menunjukkan bahwa penggunaan kondom di kalangan IDU masih rendah.

*Tujuan*: Penggunaan kondom telah diidentifikasi sebagai salah satu metode paling efektif untuk mencegah HIV dan AIDS melalui kontak seksual.

*Metode*: Penelitian ini bertujuan untuk menganalisis faktor yang mempengaruhi penggunaan kondom di kalangan IDU. penelitian explanatory dan 64 IDU dipilih menggunakan teknik accidental sampling. Hasil : menunjukkan bahwa hanya 40,6% dari penasun sering tidak menggunakan kondom selama hubungan seks pasangan mereka dalam periode enam bulan terakhir.

*Kesimpulan*: Beberapa variabel seperti melihat hambatan dan isyarat eksternal untuk bertindak secara signifikan terkait dengan penggunaan kondom di kalangan IDU. Analisis regresi logistik menunjukkan bahwa persepsi yang baik pada isyarat eksternal untuk tindakan adalah prediktor penggunaan kondom di kalangan IDU.

*Kata kunci*: penasun, penggunaan kondom, HIV dan AIDS

### Abstract

**Background**: Sexual intercourse has been identified as the primary source of HIV transmission from Injecting Drug Users' (IDUs) to their sexual partners. Previous study showed that condom use among IDUs remains low.

**Objective**: Condom use has been identified as one of the most effective methods to prevent HIV and AIDS through sexual contact.

**Methods**: This research aims to analyze the factors influencing condom use among IDUs. This is an explanatory research and 64 IDUs were selected using accidental sampling technique.

**Results** shows that only 40.6 % of IDUs often used condom during sexual intercourse their partners in the last six months period.

**Conclusions**: Some variables such as perceive barriers and external cues to action were significantly associated with condom use among IDUs. Results from logistic regression analysis revealed that good perception on external cues to action was a predictor of condom use among IDUs. their partners at last six months.

**Keywords**: IDUs, condom use, HIV and AIDS

### BACKGROUND

The number of cases of HIV infection among Injecting Drug Users (IDUs) in Central Java has been increasing since year 2000. Family

International Health (FHI) data in 1998 shows 25% persons diagnosed as HIV positive were IDUs. In 2003 the incidence of HIV infection among IDUs were increasing becoming 28% (FHI). The number of HIV

infection through IDUs in Central Java currently placed as second rank after sexual transmission through Female Sex Worker (FSW). On the other hand, HIV transmission among IDUs has been increasing but transmission HIV among FSWs was decreasing.

Beside through needle sharing, another way of HIV transmission among IDUs was through sexual intercourse. Transmission of HIV by sexual contact is an important component by injection-drug associated HIV. Previous research in Bali (2004) shown, 98% IDUs have done sexual intercourse and 59,7% of them do not use condom regularly when they do sexual intercourse with regular partner, 61,9% of them do not use condom when they do sexual intercourse with their casual friend, 44% do not use condom when do sexual intercourse with sex workers. (BKKBN, 2004). Another study in Yogyakarta said that 77% IDUs has at least one sexual partner. About 26% of IDUs conducts sexual intercourse at least once a month, 26% of them have variation in frequency, from one a month till 2-3 times a day (Suahya, 2002).

There is strong evidence that condom use can reduce a sexual transmission of HIV (National Institute of Allergy and Infectious Disease, 2000). Some meta-analysis studies found that condom use could reduce HIV transmission about 80-95% (Center for Disease Control and Prevention, 2001; David and Weller, 1999; Pinkerton and Abramson, 1997; Weller and David, 2005). Low condom use among IDUs and high risk of HIV transmission among IDUs through sexual intercourse, promote the important research about factors influencing condom use among IDUs.

#### **Research aim and objectives:**

This study aims to identify the factors influence the behavior of condom use among IDUs in Central Java. Whilst the specific objectives were as follows :

To identify factors such as knowledge to protecting HIV and condom use, perceive susceptibility and vulnerability of getting HIV and AIDS, cost, benefit and cues to action to use condom.

To examine the determinant factors influence the behavior of condom use among IDUs.

## **METHOD**

### **Participants**

Participants recruited from the member of NGO who work with the IDUs in Semarang. The criteria of the participant in this study were the IDUs who have experienced having sexual intercourse at least 6 month, they have at least a sexual partner, and stay in Semarang. The total number of sample in this study was 64 IDUs.

### **Procedures**

In obtaining the respondents, the researchers use the Outreach Workers of the NGO to facilitate meetings between researchers with the respondents. Outreach Workers will help researchers in communicating the schedule and approaching the respondents in order to make respondents to be willing to participate in this study. The interviews were conducted for about 30-45 minutes which was conducted directly by the researchers.

### **Statistical Analysis**

Univariate, bivariate and multivariate analysis were employed to analyze the data in this study. Chi-square was used for identifying associations between independent factors and the behavior of condom use, whilst multivariate analysis was employed by using logistic regression to examine the predictors of behavior of condom use among IDUs.

## **RESULT**

### **Respondent Characteristics**

The respondents were predominantly male (96.9%), most of them have average age 20-29 (70.3%), mostly they were a high educated people (university level) ( 45,3%). 93.8% respondents were heterosexual and 71,9% unmarried.

### **Condom Use Behavior**

About 59.4% of IDUs did not using condom regularly in the last six months, therefore it would cause the increasing risk of HIV infection. The increasing risk of HIV among

IDUs was also supported by the high frequency of having sexual intercourse without condom use.

This study showed that 58% of IDUs stated that the purpose of using condom particularly

for preventing pregnancy rather than for preventing HIV/AIDS transmission. Only 42% IDUs always use condom in order to prevent HIV transmission to their sexual partners.

Table 1. Respondents Characteristics

Characteristics	f	%
Gender :		
Man	62	96,9
Woman	2	3,1
Age :		
< 20 years	5	7,8
20 – 29 years	45	70,3
30 – 39 years	13	20,3
≥ 40 years	1	1,6
Education :		
Junior High School	7	10,9
Senior High School	28	43,8
University	29	45,3
Sexual orientation :		
Heterosexual	60	93,8
Homosexual	3	4,7
Bisexual	1	1,6
Marriage status :		
Not marriage	46	71,9
Marriage	16	25,0
Widower/widow	2	3,1

### Perceived of Susceptibility

The study showed that 79.7% of IDUs have positive perceived susceptibility and only 20.3% of them have negative perception on susceptibility. Chi-Square analysis showed that there was no relationship between perceived susceptibility and behaviour of condom use ( $X^2=1.182$ ; p value 0,277). Multivariate analysis also showed that perceived susceptibility variable fails to predict the behaviour of condom use since p value >0.05.

### Perceived Severity

About 60.9% IDUs have low level of perceived severity and only 39.1% of them have high level of perceived severity. 42.2% of IDUs believed that they will not die because of HIV infection, although they have never used condom during sexual

intercourse. Most respondents thought that HIV infection was not serious disease for them and cured by treatment. Respondents also believed that if their partners look clean, it means they do not have HIV infection.

Chi-Square analysis showed that there were no relationship between perceived severity and condom use behavior ( $X^2= 0,194$ ; p value=0,660). Whilst logistic regression model showed that perceived vulnerability also fails to predict the behavior of condom use.

### Perceived Benefit

In term of perceived benefit, the study showed that 64.1% of IDUs have high level of perceived benefit of condom use and 35.9% have low perceived benefit of the behavior.

Chi-Square table showed that there was no association between perceived benefit and the behavior of condom use. Whilst logistic regression also shows that perceived benefit fails to predict condom use behavior.

**Perceived Barriers**

Only less than half of respondents (48,4%) have high perceived barriers to use condom and the biggest barriers for not using condom is because condoms distributed by NGO usually were not good quality such as too thick, big size and easy to break, therefore it decreases feeling sexual pleasure. Chi-Square analysis showed that there was relationship between perceived barriers and condom use behavior with  $X^2$  8,115 and p value 0,004 or less than 0.05. The respondents mentioned that they prefer to buy drug with their own money than to buy condom. They believed that they will not get HIV infection and die because of that but they will die if not using drug. Logistic regression analysis showed that perceived barriers also fails to predict the behavior of condom use among IDUs.

**Self Efficacy**

In term of self efficacy, 43.8% of respondents have high perceived self efficacy and more than half of respondents (56.2%) have low self efficacy.

Bivariate analysis showed, that there was no relationship between self efficacy and condom use behavior ( $X^2= 0,357; 0,550$ ). Previous research done in Nigeria shown, that man and woman who have high perceived self efficacy will be able to use condom and their behavior also show the consistency of using condom. Multivariate analysis showed self efficacy fails to predict the behavior of condom use.

**Cues to Action**

The study showed 59.4% of IDUs have low cues to action and bivariate analysis shown there was positive relationship between cues to action and condom use behavior.

Multivariate analysis showed that respondents who have high external cues to action more likely 10.9 times to use condom consistently than IDUs who have low external cues to action. The discussion about HIV from Outreach worker experiences could make the respondents fear to have HIV infection. They prefer believed the outreach workers' experiences rather than information come from health worker, because outreach worker was formerly an IDU and the brotherhood among IDUs is very strong link.

Table 2. Logistic regression analysis about condom use among IDU

VARIABLES	B	S.E	Wald	df	Sig.	Exp (B)	95,0% CI. for EXP (B)	
							Lower	Upper
Perceived benefit	-1,111	0,710	2,449	1	0,118	0,329	0,082	1,324
Perceived barriers	1,584	0,860	3,391	1	0,066	4,876	0,903	26,329
Self Efficacy	-2,020	0,840	5,786	1	0,016	0,133	0,026	0,688
Cues to Action	2,389	0,874	7,472	1	0,006	10,900	1,966	60,430
Constant	0,600	0,520	1,331	1	0,249	1,966		

## DISCUSSION

### Respondent Characteristics

The respondents were predominantly male (96.9%), most of them have average age 20-29 (70.3%), mostly they were a high educated people (university level) (45.3%), 93.8% respondents were heterosexual and 71.9% unmarried. Strecher, Champion, and Rosenstock (1997) also suggest that sociodemographic factors influence perceived susceptibility, perceived severity, benefits, barriers, and self-efficacy and therefore indirectly influence health behaviors. Although the HBM is one of the most widely employed theories of health behavior (Strecher, Champion, & Rosenstock, 1997), the most recent literature reviews of the impact of HBM constructs on health behaviors were published 18 and 26 years ago.

### Condom Use Behavior

About 59.4% of IDUs did not using condom regularly in the last six months, therefore it would cause the increasing risk of HIV infection. The increasing risk of HIV among IDUs was also supported by the high frequency of having sexual intercourse without condom use. Some studies showed that consistency in condom use will reduce HIV transmission through sexual intercourse (Fhi, 2002).

Some reasons mentioned by IDUs to not using condom during sexual intercourse were because condom will decrease the pleasure, make uncomfortable feeling, and often unavailable when they need. They also think to not using condom if they have sexual intercourse with their steady partner (Sunmola, 2007). This study showed that 58% of IDUs stated that the purpose of using condom particularly for preventing pregnancy rather than for preventing HIV/AIDS transmission. Only 42% IDUs always use condom in order to prevent HIV transmission to their sexual partners.

### Knowledge of HIV and AIDS

Knowledge about HIV can be gained through reading the books, television, newspaper, and also, internet. Research about drug users

in Bali on 2003 showed that knowledge about HIV among IDU also gained from Non Government Organization (NGO). NGO have a big contribution to share or discussion about HIV with IDU.

The study showed that 50% of IDUs have a high level of knowledge and 50% of them have low level of knowledge about condom and HIV/AIDS transmission. The low level of knowledge among respondents particularly in terms of HIV/AIDS transmission among IDUs such as the respondents thought that HIV/AIDS transmission could be transmitted through anal and vaginal intercourse only and oral sex without condom could not transmit the disease. About 40.6% IDUs also thought that mother who has HIV positive could not transmit the disease to her baby.

Other study have showed that condom will use regularly among IDUs when they have multiple partner, but if they have only one partner, especially steady partner, they prefer to not using condom (Hingson, 1990). Manning et al., (1989) found that college students with little knowledge about AIDS perceived greater barriers to practicing safe sex than did students with high knowledge of AIDS. This suggests that while knowledge alone may not affect behavior, lack of knowledge may be associated with increased perceived barriers and subsequently an increase in high risk behavior.

Although information about HIV can be obtained from some media, IDU also not interested to read or listen. Research conducted by Tarana Hammon in 2006 showed that IDU ignoring information about HIV from media.

### Perceived Susceptibility

Perceived susceptibility involves one's subjective perception of the risk of contracting the health threat in question. According to Rogers, 1983 that quoted by Caroline Houlding, perceived susceptibility in HIV transmission perceive of risk is suggested (doing sexual using condom) is not performed. The greater the perceived risk, the greater the likely-hood of engaging in behaviors to decrease the risk. Person's perceived susceptibility is depend on his/her

condition when receive the impact of his behavior. If the person receives a serious condition because of his/her behaviour, it would make him/her perceive positive susceptibility to the disease, so he/she will do the protection<sup>6</sup>. Unfortunately, the opposite also occurs. When people believe they are not at risk or have a low risk of susceptibility, unhealthy behaviors tend to result. Most of respondent are adolescent / young adult and they believe if young people have an imun to prevent HIV more than adult. Respondent's perceived of less susceptibility about HIV transmission through sexual contact makes the respondents did not always using condom. Research by Andrea showed that 61% of IDU had a low perception of susceptibility to HIV infection. The Health Belief Model (HBM) theorized that's people's beliefs about whether or not they susceptible to diseases, and their perception of their benefit of trying to avoid it. influences they readiness to act.

Many young adult at risk of HIV infection, do not yet recognize their susceptibility, do not perceive their seriousness of the AIDS threat, and not motivated to alter risky behavior. Another research shown that older adults generally do not perceive themselves to be at risk for HIV infection, many do not practice safer sex. This same scenario was found with Asian American college students. They tended to view the HIV/AIDS epidemic as a non-Asian problem; thus, their perception of susceptibility to HIV infection was low and not associated with practicing safer sex behaviors.

### **Perceived Severity**

Perceived severity means feeling concerning the seriousness of contracting an illness both medical/physical (e.g., death, pain) and social consequences (e.g., effects on social relations, family life) and motivated the individual to act. While the perception of seriousness is often based on medical information or knowledge, it may also come from beliefs a person has about the difficulties a disease would create or the effects it would have on his or her life in general.

People who aware the risk of HIV infection, they will prevent themselves from it. Most respondents thought that HIV infection was not serious disease for them and cured by treatment. Respondents also believed that if their partners look clean, it means they do not have HIV infection.

More than 50% of respondents said, HIV can be cured by medicine. If they take the medicine regularly, they filling healthy, strong, and not looks a HIV patient.

### **Perceived Benefit**

The construct of perceived benefits is a person's opinion of the value or usefulness of a new behavior in decreasing the risk of developing a disease. Using condom during sexual intercourse is the best way to prevent HIV infection especially for high risk people like IDUs. A meta analysis research showed that condom could reduce the possibility to transmit HIV infection and if it is used regularly, the effectiveness of the condom use to prevent HIV will be increase more than 69%. Chi-Square table showed that there was no association between perceived benefit and the behavior of condom use. Whilst logistic regression also shows that perceived benefit fails to predict condom use behavior.

### **Perceived Barriers**

Since change is not something that comes easily to most people, the last construct of the HBM addresses the issue of perceived barriers to change. Perceived barriers mean that the individual's psychological, financial, or other perceived expense danger, unpleasantness, and inconvenience. Examples of barriers that influence safer sex behavior include the following: the belief that condoms reduce pleasurable sensation, the perception that condoms are primarily a birth control method rather than protection against STDs/HIV, a preference for oral contraceptives, a perception of invulnerability to HIV and STDs, the use of alcohol and/or drugs during sex, embarrassment about purchasing condoms, and the feeling that condoms compromise the spontaneity of sex. High cost of health care also the influences of respondents unwilling to check their health status.

### Self Efficacy

Rosenstock, Strecher, and Becker (1988) added the concept of self-efficacy to the HBM, hypothesizing that an individual's belief in his or her confidence to engage in the health behavior is also predictive of engaging in the behavior. Self-efficacy is defined by Bandura as "the conviction that one can successfully execute the behavior required to produce the outcome".

Self efficacy could be an indicator for people to choose what behavior will make them save or give them advantages or reject the damaging behavior. The application of self efficacy is to provide training, guide in performing action, use progressive goal setting, give verbal reinforcement, and reduce anxiety.

Previous research done in Nigeria shown, that man and woman who have high perceived self efficacy will be able to use condom and their behavior also show the consistency of using condom. Multivariate analysis showed self efficacy fails to predict the behavior of condom use.

### Cues to Action

Champion and Skinner (2008) said that cues to action is talking about events, strategies, or objects that prompt and individual to take action).

Health belief Model suggests that there are two type cues to action, those are internal and external cues to action. This study revealed that external cues to action such as information about outreach workers experiences and peer experiences caused the respondents aware and fear about getting infected, was positive correlation to behavior of condom use.

### CONCLUSION

The study shows that only 40.6 % of IDUs were often use condom when they have sex with their partners at last six months. Some variables such as perceive barriers and external cues to action statistically significant have associations with condom use among IDUs. Whilst logistic regression analysis revealed that good perception on external

cues to action were the predictor of the occurrence of condom use among IDUs.

### SUGESION

Local policies on HIV and AIDS can be applied from helping harm reduction programs, especially using condoms in high risk group of HIV infection and AIDS are still to be done.

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