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ASSOCIATION BETWEEN HIV-AIDS RELATED KNOWLEDGE AND HIV-AIDS RELATED BEHAVIOR AMONG URBAN YOUNG ADULT MEN IN INDONESIA

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Indonesia has one of the fastest growing HIV epidemics in Asia and the third country with highest HIV burden and new HIV infection trends after India and China. In 2014, an estimated 660,000 PLHIV lived in Indonesia (AIDS Data Hub, 2015). Eighteen percent of new HIV cases reported in 2011 represent the age group 15-24 years (UNICEF, 2012). Access to information and sexual and reproductive health services for young people is limited. The 2007 IYARHS, which includes young men and women age 15-24 from 33 provinces as respondents, revealed low levels of HIV knowledge among the general young population. Young men had slightly lower levels of knowledge than young women, 13.7% and 15.1%, respectively. Surveys of high school students in six cities during the period 2007-2009 showed the low rates of consistent condom use (below 20 percent), although more than half the respondents were able to identify condom as an HIV prevention tool. In 2011, 49% of the high school students who admitted to have had sex reported that they did not use condoms during their last sexual intercourse. This study is based on a cross-sectional study among 5,933 urban young adult participants of adolescent reproductive health component of the 2012 IDHS. Questions on HIV/AIDS related knowledge and attitudes were from the standard 2012 IDHS never married men's questionnaire. Descriptive statistics and bivariate analysis (chi-square) are employed. The result showed that only half of urban young adult men (57.5%) have comprehensive knowledge about HIV-AIDS. Thirteen percent of urban young adult men had engaged to sexual intercourse, while only one fourth of them use condom at first sex and one third of them use condom at last sex. The HIV and AIDS-related knowledge has associated with HIV and AIDS-related behavior among urban young adult men in Indonesia (p value < 0.05).

Keywords: HIV-AIDS, Knowledge, Attitudes, Young Adult Men, Indonesia

1. INTRODUCTION

Asia and the Pacific are home to the majority of young people aged 15-24 in the world. According to UNAIDS Report in 2013, an estimated 690,000 young people were living with HIV (PLHIV) in 2012 in this region. Unprotected sex and injecting drug use, as it is among adult population, is a key driver of the epidemic in this age group. As the fourth most populous country in the world, Indonesia has a number of 40.4 million of young people. Based on AIDS data hub 2015, an estimated 660,000 PLHIV lived in Indonesia in 2014. One person is newly infected by HIV in every 25 minutes in Indonesia. Twenty percent of newly infected people are below the age of 25 years. The epidemic is driven mainly by sexual transmission and injecting drug use. In 2011,

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Jakarta has the highest number of new cases, a number of 4,012 cases. Eighteen percent of new HIV cases reported in 2011 represent the age group 15-24 years (UNICEF, 2012).

Indonesian young people are experiencing very rapid social, culture and demographic changes, like experienced by their counterpart in other Asian countries (Situmorang, 2003). Currently, they more exposed to education, mass media, and government programs, particularly those living in urban areas. They have a being to follow: their peers, family, the counterpart in the Western world, school, teacher, national identity, globalization of information, and the internet. Compared to older people, younger people have more freedom to respond to changing circumstances. Reproductive ability that appears to make this age group is different from other life stage, so that sexuality is a major theme among them. (Utomo, 2003).

Some 4 percent of girls and 1 percent of boys reported to have had sexual intercourse before age 13 years, some as young as 10 years before. About a third of young people will have at least one sexual relationship when they were 17 years old. It shows that the age of sexual debut in Indonesia is quite young (UNICEF, 2012). Males are more likely to approve of premarital sex and more likely to report having had sex compared to female. Many young men believe in the necessity of sexual experiences before marriage. Some young men prefer to have sex with a "casual friend" or prostitute to obtain such "experience" rather than with their girlfriends. Having sex with a "casual friend" or sex workers are considered more fun and does not take responsibility, while with a girlfriend it demands more responsibility. Research in Medan and Kalimantan found that many sexually active young men regularly visit prostitutes. Although they are aware of the possibility of getting sexually transmitted diseases, most of them do not feel a need to use condoms. They believe condoms inhibit their sexual activities. In-depth interviews and focus group discussions with young men in Medan indicated that many of them, especially those who work on the streets, believe that STD's can be prevented by maintaining physical stamina, only having sex with "a clean and healthy" person and taking some 'medicine' before sex (Situmorang, 2003).

Until nowadays, policies and programs to control HIV epidemic and also sexually transmitted infections (STIs) are more focused on key populations, not on general young people. The absence of sexuality education in the school curriculum has hindered young people to get the right information. In fact, insufficient knowledge of human reproduction cause young people engaged in risky sexual behaviour. Most of the information about puberty and sexual health is obtained from friends, the media, and teachers. Such information may not be complete and obscured by moral messages. Information is also rarely obtained from parents who still hold the conservative norms. They feel uncomfortable discussing sexual issues with their teenage children (Situmorang, 2003).

Sex is still seen as a taboo. Young people do not openly discussed about sex with their parents, teachers, and even with health providers. It difficult for unmarried young people to access sexual and reproductive health services because of legal restrictions. The dissemination of information on sex education is also criminalized by other legal provisions. The promotion condom use still remains problematic in Indonesia; certain regions oppose this on religious or moral value (UNICEF 2012).

The government sees this issue as controversial, so the approach they use tend to be based on morality, rather than "health approach". The information given in the adolescent reproductive health (ARH) program is limited to the promotion of the family, moral and religious values rather than information about sexual health such as how to avoid unsafe sex. As a result, the reproductive health needs of unmarried but sexually active young people remain unfulfilled (Situmorang, 2003)

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There is social stigma which also attached to young people. They often regarded as a difficult and problematic stage. Young men are often labelled by society as vulnerable to risky behaviour. Indeed, young people are vulnerable to exposure to various risks and health risks, especially related to sex and reproduction (Utomo, 2003).

The 2007 Indonesia Young Adult Reproductive Health Survey (IYARHS), which covered young men and women age 15-24 from 33 provinces, revealed low levels of HIV knowledge among the general young population. Young men had slightly lower levels of knowledge than their female counterparts (13.7% vs. 15.1%, respectively). The survey also found that knowledge increases with age, is higher in urban areas than in rural areas, and increases with education. From the number of 16.6 million unmarried young men, 55% are lived in urban area.

Increased comprehensive knowledge about HIV and AIDS among youth (age 15-24 years) in general population is shown by a study in five provinces by the Ministry of Health in 2010 and 2011, from 11.4% to 20.6%. Two-thirds of youth answered correctly that the person who looks healthy can be infected by HIV and more than half of them know that AIDS could not be transmitted by sharing food. Another study in 2011 showed 64 percent of grade 11 high school students have misconceptions about HIV and only 22 percent of them have comprehensive knowledge about HIV transmission (UNICEF, 2012). The 2010 Indonesia Basic Health Research revealed that only 58 percent of the total population older than 15 years have heard of HIV/AIDS. Only 13 and 10 percent respectively of men and women had comprehensive knowledge of HIV prevention.

However, knowledge among young people does not always guarantee safe behaviour. Surveys of high school students in six cities over the period 2007-2009 revealed low rates of consistent condoms use (below 20 percent), although more than half the respondents were able to identify condoms as a HIV prevention tool. In 2011, of the senior secondary school students who admitted to having had sex, 49 percent reported that they did not use condoms during their last sexual intercourse (UNICEF, 2012).

2. OBJECTIVE AND RESEARCH QUESTION

This research is aimed to know whether HIV and AIDS-related knowledge has associated to HIV and AIDS-related behaviour among young adult men in Indonesia. Thus, the research question is: "Is there any association between HIV-AIDS knowledge and HIV-AIDS behaviour among urban young adult men in Indonesia?"

3. RESEARCH METHODOLOGY

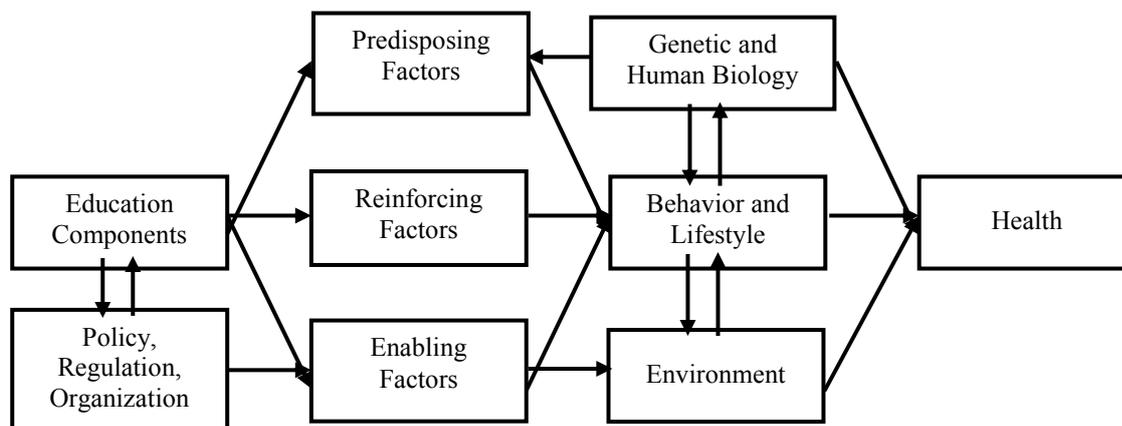
This study is based on a cross-sectional study among 5,933 urban young adult participants of adolescent reproductive health component of the 2012 Indonesia Demographic Health Survey (IDHS ARH). The 2012 IDHS ARH sample was designed to produce estimates at the national, urban-rural and provincial levels. A number of 10,980 male respondents were identified as eligible for interview. Fieldwork took place from May 7 to July 31, 2012. Questions on HIV/AIDS related knowledge and behaviour were from the standard 2012 IDHS never married men's questionnaire on section 6 about "HIV-AIDS" and section 7 about "Dating and Sexual Behaviour". Descriptive statistics and bivariate analysis (*chi-square*) are employed.

4. THEORETICAL AND CONCEPTUAL FRAMEWORK

The theoretical framework of this research refers to the framework of precede model. The precede model was developed by Lawrence W. Green (1980). He states that the health of

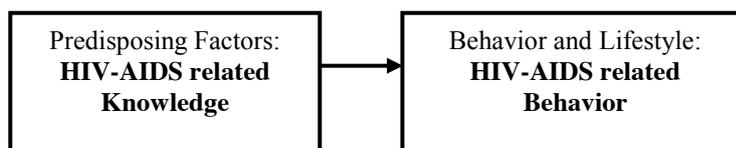
individuals and communities affected by two factors: behaviour causes and the non-behaviour causes. The behaviour causes are determined by three factors, namely predisposing, enabling, and reinforcing factors (in Notoatmodjo, 2003).

Picture 1: Framework of Precede Model of Lawrence W. Green



According to the framework of precede model, conceptual framework of this study can be described as follows:

Picture 2: Conceptual Framework



The conceptual framework of this study is only limited to two variable of the precede model, namely predisposing factors and behaviour. HIV-AIDS related knowledge is categorized as predisposing factor and also represents independent variable. Predisposing factors are any characteristics of a person or society that motivates behaviour before or during the occurrence of that behaviour. Dependent variable of this study is HIV-AIDS related behaviour.

In this study, urban young adult men are defined as never married men aged 15-24 who live in urban area in 33 provinces. HIV-AIDS related knowledge are defined as the knowledge of respondent about using a condom every time and having just one uninfected sex partner who has no other sex partners can reduce the chance of getting AIDS. While, comprehensive knowledge is categorized when respondents ever heard of AIDS, as well as they know that using condom and limiting sexual intercourse to one partner can reduce the chance of getting AIDS. HIV-AIDS related behaviour is defined as condom that respondent use at first sex and at last sex.

5. RESULT

There are 40.4 million young people (aged 15 to 24 years) in Indonesia. Three-quarters of them are never married. Among young never married man, there is no difference in number between those who lived in urban and those who lived in rural area since Indonesia is more urbanized. This study focused only to young never married man who lived in urban area. There are 4.9 million aged 15-19 years and 3.9 million aged 20-24 young never married man who lived in urban area.

In this study, of the 5933 respondents, a number of 91.4% have ever heard of AIDS. Only 67.2% know that using condoms can reduce the chance of getting AIDS. While 72.0 know that

limiting sexual intercourse to one partner can reduce the chance of getting AIDS. However, there are 42.5% urban young adult men who have no comprehensive knowledge.

Knowledge	Yes	No
Ever heard of AIDS	91.4%	8.6%
Using condom	67.2%	32.8%
Limiting sexual intercourse to one partner	72.0%	28.0%
Comprehensive knowledge	57.5%	42.5%

Thirteen percent or 773 respondents admitted that they have ever had sex. Only 26.9% of them use condom at first sex and only 29.0% of them use condom at last sex. The percentage of respondents who do not answer the question about condom use at first sex and last sex are quite high, 56.6% and 55.1% respectively. It is probably because it was thought that condom use only with multi partners. They do not want to be considered at high risk.

Condom Use (n=773)	Yes	No	NA
At first sex	26.9%	16.5%	56.6%
At last sex	29.0%	15.9%	55.1%

Only 28.7% of those who sexually active and also know using condom can reduce the chance of getting AIDS use condom at first sex. Only 28.8% of those who sexually active and also know limiting sexual intercourse to one partner can reduce the chance of getting AIDS use condom at first sex. Only 29.5% of those who sexually active and have comprehensive knowledge about HIV-AIDS use condom at first sex. Knowledge about using a condom every time and having just one uninfected sex partner who has no other sex partner can reduce the chance of getting AIDS has associated with use of condoms at first sex, p-value 0.011 and 0.001 respectively. Comprehensive knowledge about HIV-AIDS has also associated with condom use at first sex, p-value 0.000.

Variable	Condom Use at First Sex (n=773)						Total		p value
	Yes		No		NA		n	%	
	n	%	N	%	N	%			
Using condoms (knowledge)									
Yes	172	28.7	104	17.4	323	53.9	599	100	0.011
No	35	20.1	23	13.2	116	66.7	174	100	
Limiting sexual intercourse to one partner (knowledge)									
Yes	177	28.8	110	17.9	328	53.3	615	100	0.001
No	30	19	17	10.8	111	70.3	158	100	
Comprehensive knowledge about HIV-AIDS									
Yes	157	29.5	99	18.6	277	52	533	100	0.000
No	50	20.8	28	11.7	162	67.5	240	100	

Only 30.9% of those who sexually active and also know using condom can reduce their risk of HIV infection use condom at last sex. Only 31.2% of those who sexually active and also know limiting sexual intercourse to one partner can reduce the chance of getting AIDS use condom at last sex. Only 31.9% of those who sexually active and have comprehensive knowledge about HIV and

AIDS use condom at last sex. Knowledge about using a condom every time and having just one uninfected sex partner who has no other sex partner can reduce the chance of getting AIDS has associated with use of condoms at last sex, p-value 0.007 and 0.000 respectively. Comprehensive knowledge about HIV-AIDS has also associated with condom use at last sex, p-value 0.000.

Variable	Condom Use at Last Sex (n=773)						Total		p value
	Yes		No		NA		n	%	
	N	%	N	%	N	%			
Using condoms (knowledge)									
Yes	185	30.9	102	17.0	312	52.1	599	100	0.007
No	39	22.4	21	12.1	114	65.5	174	100	
Limiting sexual intercourse to one partner (knowledge)									
Yes	192	31.2	107	17.4	316	51.4	615	100	0.000
No	32	20.3	16	10.1	110	69.6	158	100	
Comprehensive knowledge about HIV-AIDS									
Yes	170	31.9	98	18.4	265	49.7	533	100	0.000
No	54	22.5	25	10.4	161	67.1	240	100	

6. CONCLUSION AND RECOMMENDATION

This study found that only half of urban young adult men (57.5%) have comprehensive knowledge about HIV-AIDS. Among them, thirteen percent had engaged to sexual intercourse. Only one fourth of those who had engaged to sexual intercourse admit use condom at first sex and one third of them use condom at last sex. From those who have comprehensive knowledge about HIV and AIDS, 29.5% of them use condom at first sex and 31.9% of them use condom at last sex. Instead, from those who does not have comprehensive knowledge about HIV and AIDS, only 20.8% of them use condom at first sex and 22.5% of them use condom at last sex. This study concluded that HIV and AIDS-related knowledge has associated with HIV and AIDS-related behaviour among urban young adult men in Indonesia.

Knowledge given to young people should be comprehensive and free from moral messages and conservative norms. Sexual education by age-appropriate approach urged to apply. Knowledge about condom use for HIV prevention also needs to be emphasized regardless of their marital status. Access to contraceptive services should also be given to them, without the stigma and discrimination.

Understanding of the importance of sexual education for young children is also need to be delivered to teachers, parents and religious leaders so that they do not judge young people. Older people who are more open will be a place for young people to share and ask about sexuality. Social aspects of reproductive health should also be included in the educational efforts, such as relationship-building skills, gender equity, and dealing with peer pressure. The availability of confidential and friendly reproductive health clinics for young people should be increased as well.

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