A research project submitted to Van Hall Larenstein University of Applied Sciences in Partial Fulfillment of the Requirements for the degree of Master of Management of Development,
Specialization in Rural Development and AIDS

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DEDICATION

This work is dedicated to my husband, Tri Utomo and my daughter, Mazaya Eka Setyo Azyati,
And also to my (late) father, M. Nur (Aan), and my mother, Maq' naah
And to my father in law, H. Ramlan
And to my (late) aunties, Iyong and Ndot
Thank you for all your love and never lasting prays
I love you all, so much.
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<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental Organization</td>
</tr>
<tr>
<td>PPF</td>
<td>Pontianak Plus Foundation</td>
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<tr>
<td>STIs</td>
<td>Sexually Transmitted Infections</td>
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<tr>
<td>SMA Negeri</td>
<td>Sekolah Menengah Atas Negeri (Public high school)</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>The Joint United Nations Programme on HIV/AIDS</td>
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<td>WHO</td>
<td>World Health Organization</td>
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ABSTRACT

HIV&AIDS is a complex problem for people around the world. About half of new HIV infections are in community of young people aged 15-24, the stage wherein the majority people begin their sexual lives (Tiendrebeogo and Buyckx, 2004). The first AIDS case in Indonesia was reported in 1987 since then HIV has widely spread in many parts of the country. The most common modes of transmissions in Indonesia are sharing infected syringes among injecting drug users and unsafe sex (Directorate General CDC&EH, 2007). Based on the report from Provincial AIDS Commission of West Kalimantan, in 2007 there were 59 HIV positive teenagers age 15-19 years old in Pontianak. Age 15-19 is age group of high school students in Indonesia. Therefore it is important to raise HIV&AIDS awareness among youngsters at that age, to prevent further spreading of HIV. Before raising HIV&AIDS awareness, it is vital to know the level of HIV&AIDS knowledge of youngsters in Pontianak.

The research was conducted in Pontianak, West Kalimantan, Indonesia. It was aimed to study the HIV&AIDS knowledge levels among high school students and make contribution towards the prevention of HIV by making recommendations for improving their knowledge in order to make them aware about HIV&AIDS.

There were 60 respondents, 29 male and 31 female, from SMA Negeri 3 Pontianak. The data was collected using questionnaire.

From the research findings, it was revealed that the level of knowledge of the majority respondents is average. The respondents obtain the knowledge about HIV&AIDS from seminars conducted by competent organizations and television since they do not have HIV&AIDS knowledge in the school curricula. The majority male respondents discuss about HIV&AIDS among friends while not many female respondents admit that they discuss about HIV&AIDS. Almost half of the respondents, both male and female, have the same opinion about safe sex which is avoidance from pregnancy and majority choose abstinence as a way of HIV prevention. In this context, culture and religion play important roles.

To increase in their HIV&AIDS knowledge, some recommendations are proposed. The respondents want continuous seminars and I propose that it is not only seminar but other methods like watching films related to HIV&AIDS, group discussions and peer educators to make the process more interesting and attractive for youngsters. The respondents also want competent organizations to pass the knowledge about HIV&AIDS at high schools.
CHAPTER ONE INTRODUCTION

Chapter one brings in the background of the study and information of HIV&AIDS situation in Pontianak, West Kalimantan, Indonesia. It also presents explanation on the problem which is researched on and the research objective and research questions.

1.1. Background Information

HIV&AIDS is a multifaceted problem. It strikes biological, psychological and social parts in lives of infected and affected people. In 2007, in the world, there were an estimated 33 million [30.3 million–36.1 million] people living with HIV and 2.7 million new HIV infections. Adolescents aged 15–24 account for an estimated 45% of new HIV infections globally. The consequences of the endemic are wider than the simple number of death (Tiendrebeogo and Buyckx, 2004). Sub-Saharan Africa continues as the region which seriously affected by HIV, with 67% of all people living with HIV and for 75% of AIDS deaths in 2007. However, countries outside Africa continent such as Indonesia, the Russian Federation and other high-income countries are facing the worrisome of increasing in new infections which is now occurring in populous countries (UNAIDS, 2008).

The first AIDS case in Indonesia was reported in 1987. Since then, HIV has widely spread in many parts of the country. Total HIV&AIDS cases reported in 2007 are 927 for HIV and 2947 for AIDS (Directorate General CDC&EH, 2007). Compared with the total population which is more than 218 million people by year 2005 (Statistics Indonesia, 2008) the prevalence is still low (adult prevalence 0.1 - <0.5%, UNAIDS, 2008). Although the World Health Organization (WHO) has verified the low prevalence reported by Indonesian government, still WHO warned of the possibility of misdiagnosis and under-reporting.

Based on the data from Directorate General CDC&EH, 2007, the most common modes of transmissions in Indonesia are sharing infected syringes among injecting drug users and unsafe sex.

West Kalimantan ranks 5th in the number of HIV&AIDS infected people among the 33 provinces of Indonesia (Directorate General CDC&EH, 2007). There are 12 districts in West Kalimantan Province with the total population are more than 4 million people by year 2000 (Statistics Indonesia, 2008). Pontianak is the capital of the West Kalimantan province. It is a medium-size industrial city. It occupies an area of 107.82 km² in the delta of the Kapuas River, the longest river in Indonesia (http://www.pontianak.go.id/, accessed 12/7/2008). Pontianak encompasses the largest number of infected people, 656 from total 1390 HIV cases in West Kalimantan Province (Provincial AIDS Commission, 2007).

Pontianak Plus Foundation (PPF) is a local non-governmental organization based in Pontianak, West Kalimantan, Indonesia. It deals with HIV&AIDS and drug use. It was established in 2003 by the recovering drug addicts who are HIV positive to support themselves. In Indonesia, HIV&AIDS relates closely to drug using. UNAIDS Report 2008 points out that injecting drug use is a major risk factor in the HIV&AIDS epidemics of a number of Asian countries.

Behavior associated with drug abuse, such as sharing needles or taking other types of drugs, has been one of the drivers of the spread of HIV since the pandemic began more than 25 years ago because substance abuse may affect judgment and decision-making and lead to high-risk sexual encounters. Sexually active drug users increase the likelihood of HIV transmission through unprotected sex among injecting drug users with their partners or sex workers.
In line with that, Volkow, 2003, determined that:

*Early in the epidemic, drug abuse and HIV were typically connected in people’s minds with injection drug use and needle sharing. However, this view greatly underestimates the impact that drug abuse can have on the spread of HIV through the dangerous risk behaviors it engenders. Drug and alcohol intoxication affect judgment and can lead to risky sexual behaviors that put people in danger of contracting or transmitting HIV.*

Based on the report from Provincial AIDS Commission of West Kalimantan, in 2007, it is revealed that there were 59 HIV positive teenagers age 15-19 years old in Pontianak. Pontianak Plus Foundation (PPF) sees it as a big threat in West Kalimantan. Because of that, PPF wants to raise awareness among high school students in Pontianak to prevent the spreading of HIV among young generation in Pontianak. Before raising awareness, PPF needs to know the level of knowledge of high school students about HIV&AIDS.

### 1.2. Problem Definition

The worst aspect of drug abuse is its appeal to the school and colleges. Most drug users begin taking drugs at an early age, as adolescents or even younger. The students take drugs due to curiosity, ignorance from parents and family, peer pressure, changes in their community, urbanization and other interrelated reasons (Satpathy, 2003). The recent study conducted between 2006-2007 by National Narcotics Agency came across to the number of drug users in Indonesia to be 3.2 million and 1.1 million of them are students of which 825.000 are high school students.

Ignorance from adults, including government, about the youngsters who are at increasing impulse to do sexual activities and to try using drugs may lead to lack of means of protection. Young people have the rights to the knowledge and means by which to protect themselves and their partners against HIV infection.

In Indonesia, there is an increasing number of infected youngsters of 15-19 years old for the last 4 years (Directorate General CDC & EH, 2008). Lack of information on HIV&AIDS and ignorance from government, parents and people who work in HIV&AIDS area are believed to be the main reasons for HIV to expand so fast and easily in Indonesia in this age group. They are left out because “adults” still not want to know. Indonesia is the most populous Moslem country in the world. Due to the religious beliefs, rules and “budaya timur” (eastern culture), first of all, sex before marriage or sex outside the marriage are forbidden in Islam. Sexual desires should be channeled through marriage, which is considered an act of worship.\(^1\) Taking alcohol and other kinds of drugs are also forbidden in Islam.

Government, National AIDS Commission, Provincial AIDS Commission and other bodies only target known high-risk groups such as sex workers, drug users, and gays this is akin to WHO and UNAIDS (2008) stated that the attention of most countries in the world goes to collecting information on high-risk groups such as men have sex with men, sex workers, injecting drug users for their injecting behavior and sexual behaviors.

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\(^1\) Holy Quran : Sura An Nur, chapter 24:32
Because the government and other bodies leave the youngsters out as a target group and also there is no curriculum for HIV&AIDS at schools, it is assumed that the level of knowledge is low. Therefore studying the levels of knowledge and making recommendation for improvement is necessary to prevent further spread of HIV infection since the youngsters are in vulnerable age of trying sex and drugs.

1.3. Research Objective

To study the HIV&AIDS knowledge levels among high school students in Pontianak and make contribution towards the prevention of HIV by making recommendations for improving their knowledge in order to make them aware about HIV&AIDS.

1.4. Main Research Questions:

1. What is the level of knowledge of high school students in Pontianak about HIV&AIDS?

   Sub-Research Questions:
   • What knowledge do the students have about HIV&AIDS?
   • How do the students get the knowledge about HIV&AIDS?
   • What are the students` perceptions towards the issues related to HIV&AIDS?

2. What can be done to increase in the high school students` knowledge?

   Sub-Research Questions:
   • How could the curriculum be modified to increase in knowledge?
   • What other media could be used to increase knowledge?
   • Who should pass the knowledge about HIV&AIDS at high schools?
CHAPTER TWO CONCEPTUAL FRAMEWORK

This chapter presents the concept being used in this research. I have used the concept because it is useful for me. There are many more concepts but for this research I only use knowledge. Youngsters are at risk and more susceptible to HIV infection due to lack of knowledge of HIV&AIDS. Below is explanation about the concept.

2.1. Knowledge

Knowledge in this study refers specifically to issues of HIV&AIDS including topics such as the understanding of HIV and AIDS and the difference between them, modes of transmission, post infections and relationship between drugs and HIV. Knowledge is different from simple awareness and it is very important to keep in mind that between knowledge and behavior, there is no simple connection (du Plessis et al, 1993).

Davenport and Prusak (1998) define knowledge as, "a fluid mix of framed experience, contextual information, values and expert insight that provides a framework for evaluating and incorporating new experiences and information."

According to Drucker (cited in Davenport and Prusak, 1998), "Knowledge is information that changes something or somebody either by becoming grounds for actions, or by making an individual (or an institution) capable of different or more effective action."

Achterbergh & Vriens (2002) stated that,

The role of knowledge in generating appropriate actions is that it serves as a background for articulating possible courses of action (articulation), for judging whether courses of action will yield the intended result and for using this judgment in selecting among them (selection), for deciding how actions should be implemented and for actually implementing actions (implementation).

The meaning of knowledge is used to indicate the clear understanding of a topic, potentially with the capability to use it for a certain purpose. Cees (2004), recognizes knowledge as perceptions and principles associate to function of biophysical and social world and social processes inclusive. Then Cees (2004) adds that knowledge can be perceived as the fundamental means through which we give meaning to our world.

Another essential category linked to knowledge is wisdom. Bierly et al (2000) says that wisdom relates to the skill to effectively select and apply the right knowledge in a given condition. Hence wisdom is about passing opinion, understand and decode them into action or inaction.

Again, Cees (2004) states that knowledge and perception are closely associated with the concept of information. Perceptions or meanings give us information relating to particular state of affairs and thus comprise information. With the aid of information and related term (perception, meaning, interpretation), would reduce the uncertainty in human beings in order to bring it into the same perspective. Different from notions, akin to perception and meaning, the word information in common language usually associated with knowledge that has been captured and stored in physical (or electronic) form.

I have several definitions but I use the definition of knowledge from Drucker as cited in Davenport and Prusak (1998) that knowledge is information that changes something or somebody either by becoming grounds for actions, or by making an individual (or an institution) capable of making difference or making more effective action in associates with HIV&AIDS.
because I perceive the knowledge on HIV&AIDS for high school students as their capability to fathom the modes of HIV transmission so that they can change their risky behaviour towards safer behaviour to prevent themselves from being infected by the HIV.
CHAPTER THREE RESEARCH METHODOLOGY

This chapter enlightens the methodology, data analysis and biases of the research.

3.1. Research Design and Methodology

The respondents of this study are students in a senior high school (SMA Negeri 3, Pontianak). SMA Negeri 3 is chosen for the reason that it got benefit from Wisma Sirih, the rehabilitation centre. Staff of Wisma Sirih did seminars about drug using and its linkage with HIV in SMAN 3. It is assumed that the students have basic knowledge about HIV&AIDS. There are total 60 respondents for this quantitative research of which 20 respondents from each level (level X, XI, and XII) to distinguish the level of knowledge of HIV&AIDS. They are assessed using self administrated questionnaire.

Information from desk research is collected through literature study using library books, reports and scientific journals on related topics of the subject. Reliable internet sources are also utilized. The aim of literature study is to collect information which is used to understand the knowledge of HIV&AIDS. It is used to help in setting up the questions in questionnaire. The topics are arranged so as to aid in the data analysis of the quantitative questionnaire. The data collected then summarize, analyze and discuss together with results of literatures. Conclusion and recommendations are then formulated based on the discussion of the findings.

3.2. Data Analysis

The data collected from the questionnaires is processed using Microsoft Office Excel and results are presented in the form of charts and tables. The research report is then produced using the Microsoft Office Word.

The questionnaires are scored based on the number of completed answers from the questions about basic knowledge of HIV&AIDS (see annex 1). What I mean by completed answers here are answers as defined by health professionals. Then I divide the results to 3 levels; score 0-4 means low, 5-8 means average and 9-12 means high to identify the levels of HIV&AIDS knowledge of the respondents.

3.3. Biases

The major constraint faced is because I could not collect the data myself. I had to rely on colleagues` help and had to wait for some time for the data sent back. Then, since I was not in the field, I could not experience the data collecting.

The limitations are HIV&AIDS is a delicate issue so not everybody is willing to talk about it openly even it is only anonymous questionnaires and then this is an exploratory because there is no data in Pontianak related to HIV&AIDS and high school students.
CHAPTER FOUR RESULTS

This chapter introduces you to the findings of the field research conducted with the targeted respondents. It will also try to collate some of the findings with previous findings of other researchers in form of the available literature cited herein. These results are displayed using table, pie, column and bar charts.

4.1. General information of respondents

Sex, Age and Religions of the respondents

The general characteristics that were measured for respondents are age, sex, class level and religion. I had proposed 60 respondents (20 students from each level of class) of high school students of SMA Negeri 3 to fill in the questionnaires. I sent 60 questionnaires and I received all of them back. 60 respondents is justifiable considering the available time from data collection to the submission of the final report. Of these 60, 29 (48.3%) are male students and 31 (51.7%) are female students.

The classes were randomly selected from each level. The students were selected as respondents for this research because of the topic of this research, HIV&AIDS knowledge among high school students. The respondents are youngsters with age variation from 13 till 17 years old, of which 1 is 13 years old, 10 are 14 years old, 17 are 15 years old, 17 are 16 years old and 15 are 17 years old.

Islam is still the dominant religion amongst the students in SMA Negeri 3. Though SMA Negeri 3 is not an Islamic school and the respondents were chosen randomly, still Moslem students are the majority with 50, 8 Christian students and 2 Buddhist students. This is the reason why I do not analyze the result based on different religion because I do not have balance number of them. Figure 1, 2 and 3 below show distribution of respondents by sex, level, age and religions.

![Figure 1. Distribution of respondents by sex and grade](image-url)
The questions in the questionnaire are open and multiple choice questions. They are also divided into 3 groups; HIV&AIDS basic knowledge part, sources of knowledge part and perception part. Though it is an anonymous questionnaire still 2 of respondents did not answer any questions. There are 12 questions for the basic information about HIV&AIDS and drugs (see annex 1). The first 3 questions are about what HIV is, what AIDS is, and is HIV the same with AIDS.
4.2. HIV&AIDS basic knowledge

Figure 4. Completed answers about what HIV and AIDS

In this section, I want completed answers; answers as defined by health professionals so I want to receive the answers that HIV stands for Human Immunodeficiency Virus, the virus that causes AIDS and AIDS is Acquired Immune Deficiency Syndrome, a collection of symptoms and infections resulting from the specific damage to the immune system caused by the Human Immunodeficiency virus (HIV). Out of 60, 4 male and 10 female respondents know what HIV is, 7 male and 4 female know what AIDS is and 22 male and 26 female believe that HIV and AIDS are not the same.
Figure 5. Completed answers of question 4 until question 12

Table 1. Contents of question 4 until question 12

<table>
<thead>
<tr>
<th>Number of questions</th>
<th>Contents</th>
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<tbody>
<tr>
<td>4 and 5</td>
<td>HIV transmission</td>
</tr>
<tr>
<td>6, 7, 8 and 12</td>
<td>Post infection</td>
</tr>
<tr>
<td>9 and 10</td>
<td>Drugs and HIV</td>
</tr>
<tr>
<td>11</td>
<td>The way to find out HIV status</td>
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</tbody>
</table>

Source: Author

In the basic knowledge of HIV&AIDS part, there are 12 questions asked. From 60 respondents, there is no respondent can answer the 12 questions completely. The highest score, 11, is answered by 1 male student of level XII out of the total 60 respondents. HIV transmission gets many completed answers. 27 male and 29 female respondents understand that HIV is transmitted through penetrative sex and 24 male and 28 female respondents also recognize that HIV is transmitted if blood from HIV positive person has contact with blood of healthy person, not from sweat or clothes of PLWHA or healthy skin of positive HIV person. For drugs issue, only 8 male and 8 female respondents distinguish that drugs affect the brain’s work, influence in
decision making and risk taking and lead to risky sexual behaviour but 21 male and 21 female respondents believe that drug users are at risk of HIV infection when they share injecting equipments and also drugs influence the way in which the users make decision.

![Figure 6. Total completed answers](image)

In general, 8 out of 12 questions, female respondents`s respond better than male. Male respondents have better knowledge than female on the definition of AIDS and they believe that HIV infected person still can study and work like non-infected HIV person. For drugs issue, there are the same number of respondents answered.

**Levels of HIV&AIDS knowledge**

To measure HIV&AIDS basic knowledge among the respondents I make scoring. What I mean by HIV&AIDS basic knowledge is the understanding of HIV and AIDS and its difference, HIV transmission, post infection, correlation between drugs and HIV and HIV test. Scores are obtained from the numbers of the correct answers. To distinguish their levels of knowledge, I scale their scores for the knowledge about HIV&AIDS; from 0-4 means lack of knowledge, 5-8 for average and 9-12 indicates having good knowledge.
Based on the leveling I make, 8 out of 60 respondents are lack of basic knowledge about HIV&AIDS. 42 out of 60 have enough knowledge about it and only 10 out of 60 have good HIV&AIDS basic knowledge. Though 42 respondents have enough knowledge only 14 out of 60 define HIV and 11 out of 60 describe AIDS in line with medical terms.
4.3. Source of knowledge

For answering sub research question about how the students get knowledge about HIV&AIDS, I make 4 questions, asking about sources of first time heard about HIV&AIDS, sources that give high school students more information about HIV&AIDS, whether the students discuss about HIV&AIDS among them and their scales of the information about HIV&AIDS available in their school.

Figure 9. Sources of first time heard about HIV&AIDS

Fig.10. Other sources of first time heard about HIV&AIDS
When asked about the first time heard of HIV&AIDS, 11 of the respondents do not response to this question maybe because they could not recall it. From 31 respondents who choose others as an answer reveal that they heard it from television (20 respondents), and 5 knew it from parents. From this 5 respondents, 4 of them are female. Only 7 respondents heard it from school.

![Figure 11. Sources of HIV&AIDS knowledge](image1)

![Figure 12. Other sources of HIV&AIDS knowledge](image2)
Major sources of HIV&AIDS knowledge for the respondents

The major sources of HIV&AIDS knowledge are seminars from competent institutions (9 male and 11 female respondents) and television (7 male and 10 female respondents). In these two main sources, the numbers of female respondents are more than male. Only few respondents declare that teachers give them more knowledge about HIV&AIDS. This validates that the school does not provide any information about HIV&AIDS at school. From 7 respondents stating that they receive it from teachers, 5 of them are male respondents. I assume that the teacher(s) might be male teacher(s) due to the level of comfort and the cultural context and the process is not taking place in the formal situation since only small numbers of respondents admit it.

Figure 13. Discussion of HIV&AIDS related issues among friends

Only 1 female respondent acknowledges that she always discusses about HIV&AIDS among friends while there are more male respondents (19 out of 60) admit that they sometimes discuss about it among friends compared to female (13 out of 60).
Only 3 female respondents (from level XI and XII) feel that the knowledge about HIV&AIDS provided at school (included in biology lesson for students of level XI) is more than enough for them while 9 female consider it as very insufficient. From 60 respondents, 26 sense that the school provides insufficient HIV&AIDS knowledge.

4.4. Respondents` perception on issues related with HIV&AIDS

To answer research question about high school students` perception towards issues related with HIV&AIDS, I made several questions regarding what they are thinking about if they are listening to the words “safe sex”, their opinions on strategies of “safe sex” for youngsters whether to prevent them from pregnancy, HIV and Sexually Transmitted Infections, discussion whether religion plays a role in making decision in doing sex before marriage and factors that influence youngsters so that they are more willing to do sex before marriage.
Figure 15. Opinion on safe sex

When listening to the word “safe sex”, both male and female respondents consider avoided from pregnancy as safe sex (13 male and 14 female respondents out of 60). This is related closely with the cultural issues, honors and shame if the girls are pregnant. 1/3 of the total respondents (9 male and 11 female) realize that safe sex could be meant as protection from HIV infection.

Figure 16. Opinion on HIV prevention

When discussed about HIV prevention, 38 (17 male and 21 female) respondents agree that abstinence can protect them from getting infected. 9 male and 11 female respondents recognize condom use as a mean of protection too. Only 2 out of 60 think that disposable needles can prevent HIV infection. I did not explain more about disposable needles but I assume these 2 respondents linked it with drug using.
Figure 17. Role of religion in making decision about sex before marriage

The majority, 48 (21 male and 27 female) out of 60 is agree that religion plays an important role before making decision about sex before marriage. However 2 male and 3 female respondents do not consider religion plays a role in it.

Figure 18. Influential factors to do sex

12 male and 24 female respondents consider television and internet as the most influential factors because television shows sex as a part of modernization and for the internet because of its free accessed pornography. 10 respondents choose other factors such as sex desire (6 male respondents) and 4 female respondents state that love is the reason to do sex.

For answering the second main research question about what can be done to increase in the high school students’ knowledge there are 3 sub-research questions. The first is asking about
how can the curriculum be modified then the second is what media can be used to increase in knowledge and the last is who should pass the HIV&AIDS knowledge to high school students.

Figure 19. The importance of availability of HIV&AIDS knowledge at school

16 male and 18 female out of 60 agree that the availability of HIV&AIDS knowledge in school is very important whilst 5 feel that it is not important.

Figure 20. Ways of HIV&AIDS knowledge dissemination

Both sexes of respondents (37 out of 60) prefer seminars from competent organisations as a way to get more knowledge about HIV&AIDS. Only 10 respondents want it to be put in school curricula. 1 of the respondents thinks that parents also should take part in disseminating HIV&AIDS knowledge to their children.
Figure 21. Preferable media for HIV&AIDS education

Though they choose seminars as a way of putting HIV&AIDS knowledge in school, the respondents prefer television as a media for HIV&AIDS education (8 male and 13 female respondents) while 17 respondents select seminars.

Figure 22. The actors passing the HIV&AIDS knowledge at school

Majority (45 out of 60) believe that competent organizations can be the best actor to pass the HIV&AIDS knowledge. Only 6 respondents choose teachers at school as a party to deliver HIV&AIDS knowledge.
CHAPTER FIVE DISCUSSION

This chapter deals with the field result of research complemented with the findings from literature with regard to study the respondents` level of knowledge on HIV&AIDS.

5.1. Discussion

From the findings, it was revealed that the majority respondents (42 out of 60) are on the average level of HIV&AIDS basic knowledge. The basic knowledge here including the understanding of HIV and AIDS and the difference of it, HIV transmission, post infection, the link between drugs and HIV, HIV test and their knowledge whether HIV can be cured. Out of it, the majority knows that HIV and AIDS are two different things but most of them could not define what HIV and what AIDS is. There are answers such as HIV is a killing virus, HIV is a deadly virus, HIV is a disease that cause death, HIV is a virus that attacks human reproduction system and for AIDS, they define it as dangerous and scary disease that can cause death, and AIDS is a contagious disease, AIDS is a curse from God and AIDS is for sinners. Only small amount of respondents could answer the first three questions completely. This is possible because they receive information from the seminars which was held by competent organizations and attended by only representative from each class. For the rest, although they have heard about HIV&AIDS still they cannot define HIV&AIDS as defined by the health professionals. It revealed that they need more information from schools to make them knowledgeable about it.

The largest part of respondents recognize that HIV in general is transmitted through penetrative sex, not through toiletries, mosquito`s bite or shake hands. Then they also know that only contact from blood, not sweat or skin or clothes, of the infected person to blood of healthy person can transmit the virus.

Female respondents responded better than male and more female have good knowledge than male respondents because from the findings, it is revealed that there are more female respondents receive HIV&AIDS knowledge from seminars than male respondents. This was in contrary with what had been stated by Save Africa Concerts Foundation; Research from all over the world show an alarming degree of misinformation and lack of knowledge about HIV/AIDS amongst adolescents, especially young women (www.sacaids.org accessed 2/08/2008) but Canterbury et al (1998) supports my findings that adolescent males are generally less knowledgeable about HIV than their female counterpart.

When come to the question about the sources of first time heard about HIV&AIDS, the majority chose television as an answer but there is also an interesting answer from four female respondents that they heard about HIV&AIDS from parents. This might be caused that parents talked to their female children to inform them so that the children can protect themselves from HIV infection. By reason of culture, parents only talk or inform the daughters whilst they let the sons to find out answers themselves. Only minority revealed that they heard it from school because HIV&AIDS is not put in the curricula and it is a delicate issue and also I do not know whether the teachers are familiar with this issue.

When I relate the level of knowledge with the sources of knowledge, female admitted that they got knowledge from attending seminars while male were not so much interested in attending seminars. This also explains why class level does not seem to significantly correlate with HIV&AIDS knowledge among the respondents since they do not get HIV&AIDS knowledge from classrooms. In addition, discussion among friends is also one way of getting information about HIV&AIDS. Male respondents discuss more about HIV&AIDS among their fellow friends...
compared to female. In this case, culture plays a role that girls are not expected to talk or
discuss issue related to sex, drugs and HIV&AIDS but male have more freedom to talk about it
and also male students have more time for leisure and interaction than female students who
prefer to spend their time for studying or doing housework.

The respondents furthermore realize that they do not received sufficient knowledge
about HIV&AIDS from school though school actually is a place where knowledge and
information exchanged take place. They do not get anything from curricula since HIV&AIDS is
not put in school curricula.

Almost half of the total respondents, both male and female, have the same opinion when
they are listening the phrase safe sex. Safe sex for the respondents means avoidance from
pregnancy. They might do sex before marriage but they will apply ways to protect the girls from
pregnancy. This answer has association with the culture. In “budaya timur” (eastern culture),
pregnant outside marriage will be a disaster for the girl because she would be seen as a sinner
and branded as a “cheap” girl. The culture in Indonesia appreciated virgin girls on the wedding
night and also could not accept a pregnant school girl; she will be automatically withdrawn from
school. The school could not accept her because it did not want its reputation going down if the
society knew that a female student from that school was pregnant. The parents will feel shame,
and the girl will be excluded and had no future. Contrary to the boy who had caused the girl to
be pregnant; the society does not really concern about the boy.

In line with strategy for HIV prevention, the female respondents agree that abstinence
can be the best way to protect them. Abstinence means no sex at all unless they are married.
The youth in Uganda has the same opinion; abstinence is believed as the most effective
protection against the risk of HIV (Akurut et al, 2004). Abstinence has connection with the
religion. Islam forbidden sex outside marriage and Islam promotes early marriage while sex
before marriage and sex outside the marriage are condemned (Tiendrebeogo and Buyckx,
2004). According to Lefkowitz et al (2004) “religiosity and sexuality are also closely linked to
each other, in that religion potentially influences a range of decisions about sex-related issues
such as abstinence.” The second strategy for HIV prevention chosen is condom use. There are
more female see condoms as a mean of protection from HIV than male. This is due to (young)
men felt they are not true men if they used condoms in sexual intercourse similar to what Aitken
(2004) finds out; the masculinity and pleasure of the men are threat by the existence of
condoms. There are a small number of respondents who recognized condoms as a means of
protection. The number of respondents who mentioned condom used is low because they do
not receive much information about condom due to cultural issue The society still perceives
promoting condoms means promoting sex and they do not want their children are introduced
with condoms.

Religions play a role in decision to do or not to do sex. For long time, it is shown that
religious contribution and adolescent sexual behavior and attitudes are sturdy interrelated.
Lefkowitz et al (2004) mentions that religious behavior was found to be the strongest predictor
of sexual behavior. In accordance with it, Nonnemaker et al in Aitken (2004) pointed out that
religiosity is a defensive factor for adolescent sexual behavior.

Based on the findings, television and internet really play a great role in influencing young
people to do sex. Sex, together with drug using is shown as parts of modernization. Free
accessed of pornography from the internet make young people, especially male, cannot control
their sexual desire since they are in their highest impulse biologically. Sexual desire and
curiosity are the common reasons for young people engaging in sex before marriage which
arise from the influence of porn films, porn sites, and peers pressure, encouraged by conducive situation for couples of boyfriend and girlfriend to experiment together. Beside sex desire from male respondents, female respondents bring in the love issue as their reason to do sex before marriage. In the name of love, they are willing to have sex with their boyfriends, as a proof that they really love each other and also there is fear if they reject it, their boyfriends will break up the relationships. They do not want to lose their boyfriends because by having boyfriends, the girls would be seen as popular girls. Similar to what Simon and Paxton (2004) came across that sexual contact before marriage are tolerable as long as there is love and they are conscientious. Beside sexual desire and love, there is also another reason to do sex; peer pressure, especially for men. As said by Wiegars (2007), “Young men below 25 years of age are at bigger risk than older ones because community pressure makes young men start having (unprotected) sex with several partners from an early age.” So the boys do sex because of sexual desire and peer pressure while the girls do sex because of love.

When I asked their opinion on the importance of availability of HIV&AIDS knowledge at school, more female want HIV&AIDS knowledge to be put in school since they recognize HIV&AIDS as new hazard and also because this issue is limited by religion and culture so that female respondents want it to be put in school in order that they can have enough knowledge to protect themselves rather than if they have to seek for knowledge themselves since they are reluctant to discuss it among friends than male respondents.

The respondents want continuous seminars (lectures) which should be attended by the whole students not only the representative of each class. Back to the comfort zone and trust, the respondents choose seminars from competent organizations as a way of HIV&AIDS knowledge dissemination. I assume that the respondents do not think that teachers are knowledgeable enough and the respondents seem not interested to discuss this issue with the persons they know and they will not feel free to talk with their teachers and ask them issues related to sex, drugs and HIV&AIDS.

Though they want continuously seminars to be held but still more respondents prefer television as a media for HIV&AIDS education than seminars. This can be explain that they spend more time watching televisions and television can be accessed anytime and anywhere while the seminars only at schools or outside schools with limited time. But they need seminar to ask and get answers since they cannot get all answers of their curiosity from television.
CHAPTER SIX CONCLUSION AND RECOMMENDATION

This chapter gives a conclusion from the findings and discussion in order to provide recommendation on the ways of improving the HIV&AIDS knowledge of high school students in Pontianak, West Kalimantan, Indonesia. The chapter also gives some recommendations for Pontianak Plus Foundation and the school.

6.1. Conclusion

From the data analysis, it is revealed that the level of HIV&AIDS knowledge of the majority respondents who are students from SMA Negeri 3 Pontianak is average. They have enough knowledge to answer the questions asked. Their level of knowledge is average because they only got the knowledge from 3 times seminars from competent organizations. It is not yet good since they do not have HIV&AIDS continuous seminar (lecture) program in the school.

HIV&AIDS and related issues such as sex, drugs and People With HIV/AIDS’ lives after infection attract the respondents’ attention. They are curious and want to learn more. They perceive safe sex as avoidance from pregnancy and for HIV prevention they choose abstinence in the first place though small number of respondents also recognizes condoms as a means of protection. Most of them agree that they consider sins before doing pre marital sex due to religion preach but I cannot reveal their actual sexual behaviour in this research.

Television and internet have big influence on youngsters in triggering their sexual desire. In addition love also plays a role in doing sex. In the name of love, girls are persuaded by their boyfriends.

The respondents want to have more on HIV&AIDS knowledge. They think that the availability of the HIV&AIDS knowledge is very important. They would prefer HIV&AIDS knowledge dissemination in form of seminars (lectures) from competent organizations. They want the third party to carry it out. Besides that, involvement of parents also should be considered, to take part in disseminating HIV&AIDS knowledge to their children. For the media that can be used, television is the first choice. But I do not think it can work for this short time because television involvement needs many parties to collaborate in.

HIV&AIDS knowledge should be brought in schools to make sure that the students have enough knowledge for them to make choices, decide whether they want to protect themselves and their partners from HIV infection. In line with that, UNAIDS focus on measures that directly support risk reduction by providing information and skills. One of the Essential Policy Actions for HIV Prevention is promote widespread knowledge and awareness of how HIV is transmitted and how infection can be averted (UNAIDS, 2008).

6.2. Recommendation

This part is going to provide some recommendations for increasing in knowledge of HIV&AIDS for high school students in Pontianak.

I advise that there should be a pilot project for HIV&AIDS knowledge dissemination in SMA Negeri 3. I propose various methods of HIV&AIDS knowledge dissemination from interactive seminars to watching films about HIV&AIDS or group discussions to see which ways fit the students. It is hoped that HIV&AIDS knowledge can change their risky behavior towards safer behavior.
From the findings, I notice that peer education is important and it is moreover important to provide youngsters with the HIV&AIDS knowledge so that they can discuss among them and their peers could be the source of information for them. Furthermore peer educators are hoped to be role models for youngsters in view of the fact that “peer education is often used to effect change at the individual level, with the aim of modifying a person`s knowledge, attitudes, beliefs, or behaviours” as agreed by Population Council (p.2). Therefore, I recommend PPF to start educating youngsters to become peer educators because peer education is one of the most commonly used approaches to tackle the HIV/AIDS pandemic to make change at the individual, group or social level by adjusting norms and inspiring collective action (Population Council, p.2).

Then I recommend Pontianak Plus Foundation (PPF) to do (more) participatory research approach on youngsters and HIV&AIDS, including the trends of sexual behavior and risky factors. I hope in the next research, the stakeholders such as teachers, parents, religion leaders, community leaders, local government, Provincial AIDS Commission, the rehabilitation centre, local health department, local education department and the youngsters will be involved to find out what is needed by which participant so that all the stakeholders can collaborate in fighting against HIV&AIDS.
REFERENCES


WHO and UNAIDS. (2008) *Epidemiological Fact Sheet on HIV and AIDS; Core Data on Epidemiology and Response: Indonesia*.

**Websites:**


http://www.pontianak.go.id/ (accessed 12/7/2008)


Some recommended reading:


Questionnaire

Introduction

This questionnaire is prepared and spread to get data and information needed for thesis as a requirement to get a master degree of Management of Development, specialized on Rural Development and AIDS, which is obtained in Van Hall Larenstein, part of Wageningen University and Research Centre, The Netherlands.

Data and information which is obtained based on this questionnaire is used merely for academic use, namely for the thesis which entitles: Improving Knowledge about HIV/AIDS among students of Senior High School in Pontianak, Kalimantan Barat, Indonesia (Case study SMA Negeri 3 Pontianak).

As this data is very important, it is expected that answers and explanations are given in detail and based on the reality. The data obtained is personal and privilege.

Please read carefully.

Thank you for your help and cooperation.

Regards,

Zharifah Eliyana

Age :
Sex :
Class :
Religion :

1. What is HIV?
2. What is AIDS?
3. In your opinion, is HIV the same with AIDS?
4. In general, how is HIV transmitted from the infected person?
   a. Toilet and eating stuff
   b. Mosquito bite
   c. Penetrative sex
   d. Handshake
5. HIV is transmitted when _________________________ of the infected person is in contact with ______________ of uninfected person.
   a. clothes -skin
   b. blood -skin
c. blood - blood
d. sweat - skin

6. Choose the correct statement: If someone gets infected from HIV then…
   a. He directly suffers from AIDS
   b. He can transmit the HIV to other persons only when he is sick
   c. He can transmit the HIV to other persons
   d. He cannot live longer

7. Can the HIV-infected person still do the activities such as studying and working like normal persons?
   a. Of course
   b. May be
   c. Impossible
   d. No idea

8. Can HIV infected person get married and have children?
   a. Of course
   b. May be
   c. Impossible
   d. Have no idea

9. In your opinion, drugs can:
   a. Affect brain biologically
   b. Influence in decision making and risk considering
   c. Lead to risky sexual activities
   d. All answers are true

10. Drug addicts are at risk of getting infected by HIV _____________.
    a. When they are together
    b. Because drugs may have influences on decision making
    c. When they use the same tools for drug injections
    d. B and C are true

11. How do we know that someone is infected by HIV?
    a. From his/her appearance
    b. From blood test for HIV
    c. From the smell of his/her mouth and body odor
    d. All answers are true

12. In your opinion, can HIV be cured?
    a. Of course
    b. May be
    c. Until now, it cannot be cured
    d. Have no idea

13. From where did you first hear about HIV&AIDS?
    a. School
    b. Newspaper
    c. friends
    d. Others, please mention ________________

14. So far, from where do you get much information about HIV&AIDS at most?
    a. Newspaper
    b. Seminar from competent institutions
    c. Teachers in the school
    d. Others, please mention ________________

15. Do you discuss HIV&AIDS among your friends?
    a. Never talk about it
b. Seldom talk about it
c. Sometime talk about it
d. Always talk about it
16. What do you think about information about HIV&AIDS in your school?
   a. Very insufficient
   b. Insufficient
   c. Enough
   d. More than enough
17. What comes in your mind if you hear the phrase ‘safe sex’?
   a. Avoided from pregnancy
   b. Avoided from Sexually Transmitted Infections (STIs)
   c. Avoided from HIV
   d. Others, please mention ........................................
18. In your opinion, what strategy of ‘safe sex’ for teenagers which is part of prevention from pregnancy, HIV and STIs?
   a. Not having sex before marriage
   b. Using disposable needles
   c. Using condom
   d. Others, please mention ________________________
19. Does religion play important roles in decision making about having sex before marriage?
   a. Yes
   b. No
   c. May be
   d. Don’t know
20. In your opinion, what factors that influence teenagers so that they are susceptible to have sex before marriage?
   a. Economic factor
   b. Influences from television and internet
   c. Peer pressure
   d. Others, please mention ________________________
21. In your opinion, how should the knowledge about HIV&AIDS is given?
   a. Be included in school curriculum
   b. Be included in extracurricular activities
   c. Seminar from competent institutions
   d. Others, please mention ________________________
22. In your opinion, how important is the availability of knowledge about HIV&AIDS in your school?
   a. Very important
   b. Important
   c. Less important
   d. Not important
23. In your opinion, which one is the right party to acknowledge you about HIV&AIDS?
   a. School and teachers
   b. Competent institution on drugs and HIV&AIDS
   c. Religion institution
   d. Others, please mention ________________________
24. In your opinion, what is the right media for education about HIV&AIDS?