Factors related to the level of prisoner’s participation in implementing the voluntary counseling and testing program in penitentiary Semarang, Indonesia

Untung Sujiianto*, Laura Ayudina Nasiyatul Aisyiyah

ABSTRACT

Introduction: Voluntary Counseling and Testing (VCT) is one of HIV screening programs to detect HIV infection earlier by counseling before and after doing blood test. During implementation of this program, there were various factors influenced prisoners to do VCT. The purpose of this research to determine factors influenced the participation of prisoners to do VCT.

Method: This research was an analytical research with cross sectional design. A total of 145 respondents have filled questionnaire distributed by researcher. The result showed that 73 respondents (50.3%) have followed VCT and 72 respondents (49.7%) did not VCT yet. Factors related prisoner’s participation (WBP) towards VCT program were education level, perception of needs about VCT service, prison support, health workers support, support by family and people around them.

Result: The result showed that there are two types of support related with prisoner’s participation: prison’s support which is among 104 respondents (71.7%) who have high support, 62 respondents (42.8%) have followed VCT with p-value = 0.000. According to health workers support, 114 respondents (78.6%) who have high support, there are 64 respondents (44.1%) have followed VCT with p-value = 0.007.

Conclusion: The counselor’s ability must be improved to perform good VCT and the prison was expected to give more information about HIV/AIDS and VCT program to increase prisoner’s knowledge to follow VCT.

Keywords: prisoner, prison, voluntary counseling and testing.

INTRODUCTION

HIV transmission can occur in various places, one of which is prison. Prisons are one of the places that are vulnerable to the transmission of HIV infection. The prevalence rate of HIV incidence in prisons is still quite high, because the inmates are included in the category of the population at risk with a history of high-risk behaviors such as IDUs (18%), unsafe sex (42%) and tattoos (61%).

The discovery of HIV cases in Class 1 Semarang penitentiary has changed every year, the highest case ever found, reaching 14 cases of HIV discovery in October 2016. The government has made various efforts to anticipate the increasing HIV transmission in prisons, one of which is by implementing a program of Voluntary Counseling and Testing (VCT).

VCT is a program carried out with a two-way coaching system or dialogue that takes place without interruption between the counselor and his client. The main purpose of VCT is to prevent HIV transmission, provide information, provide moral support, and provide other support which is of course very much needed for an ODHA, as well as to provide motivation to support their family and environment. In this program, the nurse acts as a counselor who provides counseling during program implementation and as a blood collection officer.

In general, community participation in this VCT program is still low. Matters that influence this include the availability of facilities and infrastructure as well as support from health workers and families, as well as costs. Besides that, the fundamental thing is the perception and fear of the examination results. Research that has been conducted in prisons/detention centers throughout Indonesia states that HIV testing and counseling services have been offered to 40% female prisoners and 29% male prisoners in correctional institutions/detention. In this case men are less likely to accept offers to do VCT because male prisons/detention centers are scattered all over the city that is still unable to provide VCT services, while women are scattered only in big cities.

The results of a preliminary study conducted at the Class 1 Prison in Semarang showed that there were still many prisoners with high-risk factors for HIV transmission but did not have the self-awareness to want to do VCT. The unavailability of a special VCT clinic for counseling, reduces the comfort and privacy of prisoners in conducting VCT.
counseling. Based on this background, researchers are interested in conducting research on the factors that influence the level of WBP participation in the implementation of the VCT program at the Class 1 Prison in Semarang.

**METHOD**

This study is an analytical study with a cross sectional design. The population was all prisoners in criminal cases of drug abuse in Class I prison in Semarang. Using simple random sampling technique with inclusion criteria, namely prisoners with criminal cases of drug abuse, prisoners with risk factors for HIV (drug users, tattoos, and a history of free sex), and prisoners who at the time of the study were still prisoners. The number of samples was 145 respondents. Collecting data using a modified questionnaire from the 2012 Lestari questionnaire, then the questionnaire has been subjected to expert testing and validity with valid results and a reliability test has been carried out with the highest alpha coefficient of 0.797. Data analysis used univariate analysis and bivariate analysis with chi-square statistical test.

### RESULT

**Study participant**

Table 1, Shows the results of respondents who have done VCT and have never done VCT, which is almost balanced, namely 50.3% (73 people) have done VCT and the remaining 49.7% (72 people) of respondents have never done VCT. The majority of respondents were between 26 - 35 years old and 36 - 45 years old with the same percentage, namely 46.2% (67 people). Judging from the education level, most of the respondents had low education 51.7% (75 people). The highest knowledge of respondents was respondents with good knowledge, namely 64.8% (94 people). Judging from the perception of the highest need for VCT services, 86.9% (126 people) had a good perception. In addition, seen from the support to respondents for prison support, the highest respondents were 71.7% (104 people) had high prison support. Support from health workers, the highest respondent 78.6% (114 people) counseling.

### Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation Rate</td>
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<td>73</td>
<td>50.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>72</td>
<td>49.7</td>
</tr>
<tr>
<td>Age</td>
<td>Late Youth (17 – 25 year)</td>
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<td>3.4</td>
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<tr>
<td></td>
<td>Early Adult (26 – 35 year)</td>
<td>67</td>
<td>46.2</td>
</tr>
<tr>
<td></td>
<td>Late Adult (36 – 45 year)</td>
<td>67</td>
<td>46.2</td>
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<td></td>
<td>Early Elderly (46 – 55 year)</td>
<td>6</td>
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</tr>
<tr>
<td></td>
<td>High (college graduated)</td>
<td>17</td>
<td>11.7</td>
</tr>
<tr>
<td></td>
<td>Intermediate (graduated from high school)</td>
<td>53</td>
<td>36.6</td>
</tr>
<tr>
<td>level of education</td>
<td>Low (completed / did not complete SD and SMP)</td>
<td>75</td>
<td>51.7</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Good</td>
<td>94</td>
<td>64.8</td>
</tr>
<tr>
<td></td>
<td>Bad</td>
<td>51</td>
<td>35.2</td>
</tr>
<tr>
<td>Perceptions of VCT Service Needs</td>
<td>Low</td>
<td>19</td>
<td>13.1</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>104</td>
<td>71.7</td>
</tr>
<tr>
<td>Prison Support</td>
<td>Low</td>
<td>41</td>
<td>28.3</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>114</td>
<td>78.6</td>
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<tr>
<td>Health Worker Support</td>
<td>Low</td>
<td>31</td>
<td>21.4</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>105</td>
<td>72.4</td>
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<tr>
<td>Friends and Family Support</td>
<td>Low</td>
<td>40</td>
<td>27.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>145</td>
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### Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of means</td>
<td>High</td>
<td>68</td>
<td>93.2</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>5</td>
<td>6.8</td>
</tr>
<tr>
<td>The Counselor’s Perception</td>
<td>High</td>
<td>70</td>
<td>95.9</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>3</td>
<td>4.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>
had high support from health workers, and for the support of friends and family the highest respondents were 72.4% (105 people) had high support from friends and family.

**Data on description of respondents who have conducted VCT**

Table 2. According to the perceptions of respondents who have done VCT, it is divided into two perceptions. Perception of the facilities in the VCT clinic, the highest respondent 93.2% (68 people) had a good perception of the facilities, and according to the perception of counselors in the VCT clinic, the highest respondents were 95.9% (70 people) had a good counselor perception.

**Bivariate analysis**

Table 3, shows that after performing statistical calculations using the Chi-Square test, the results of prison support and health personnel support are related to the level of VCT participation. With each p-value for prison support p-value = 0.000 and for health personnel support p-value = 0.007 which indicates a significant relationship between between prison support and health personnel towards participation in VCT.

**DISCUSSION**

**Description of WBP Sociodemographic Characteristics (Age and level of education)**

Age is one of the risk factors that are vulnerable to HIV/AIDS transmission. A study conducted in Kenya suggested that individuals aged 13-34 years or older had a significant association with HIV infection. In this study, the highest respondents belong to the adult category. In this study, the highest respondents belong to the adult category.

According to Piaget’s (1959) theory in psychological development, especially adulthood, it can be interpreted that a person has reached the development of a formal thought operation. In the development of this adult age, a person can solve all problems logically, think scientifically, and can solve complex verbal problems or he has reached the maturity of his cognitive function. At this stage people begin to develop knowledge of self or identity that can be carried to the outside world around them. It should be someone with an adult age is able to choose action as a form of prevention of HIV transmission.

**Level of education**

In this study most of the respondents still had low education. Someone with low education is also said to have low knowledge because education is a process of a human being guiding himself from darkness or ignorance and to achieve a better knowledge. UNESCO recommends four pillars of education, namely, learning to know, learning to do, learning to be, and learning to live together. So it can be concluded that through education there is a learning process to acquire the knowledge and abilities needed by him to be used in the life he lives, as an effort to achieve self-development in accordance with his potential, and the ability to socialize in society.

**Description of WBP Participation Level in VCT Implementation**

Community participation in participating in a program is the participation of all community members in solving problems in their environment. The implementation of VCT is carried out with routine offerings during the environmental introduction period and retesting can be carried out according to one’s own wishes or a referral from health workers. This VCT counseling is to assess problems, discuss strategies for reducing the risk of HIV transmission, discuss strategies for coping with stress and provide information on access to health services after going to prison/detention. The role of VCT in prisons is to detect HIV and TB as early as possible when a new prisoner arrives.
take medication, manage cases of HIV and TB that are found, prevent transmission among prisoners, provide prophylaxis. In this study, the number of respondents who had done VCT and had never done VCT was almost equal, although most of the respondents who had done VCT were based on their own desires. However, so far the implementation of VCT by WBP has not been running regularly.

**Description of Knowledge about HIV/AIDS and VCT WBP**
Knowledge is an important part of shaping a person's behavior, because good behavior comes from good knowledge. So it can be concluded that knowledge is a person's ability to shape himself to be able to do something he already knows in the right way through the adaptation process to get motivation to do good things. In this study most of the respondents already had good knowledge which indicated that the respondents already knew enough about HIV/AIDS and VCT, basically this knowledge should be able to make respondents adapt to this VCT program, which makes it one of the motivations for doing VCT.

**Description of Perception of WBP VCT Service Needs**
Perception is a process of organizing, interpreting a stimulus received by a person, to interpret the stimulus. Perception is divided into two, namely external perception, where perception occurs because of stimuli that come from outside the individual. Meanwhile, self-perception is a perception that occurs because of stimuli that come from within the individual, or it can be said that the object in question is himself. This perception of the need for VCT services is an example of self-perception that arises from himself in perceiving something he receives. Basically a sense of need will encourage him to do VCT, but many feel unprepared when it comes to knowing the HIV status they receive.

**Perceptions of Facilities in VCT Clinic**
Based on the Ministry of Health (2006) regulations, the facilities that must be in VCT clinics are especially counseling rooms, props, information support facilities (leaflets and posters) and other supporting tools for recording medical records and for blood collection. In this study, respondents already have a high perception of the means. Perception of this facility is an example of external perception, where this perception arises based on what one sees and the supporting facilities are able to provide comfort in counseling. The results of preliminary studies show that there is no special VCT counseling clinic that is still taking place at the prison general polyclinic, which of course is still lacking.

**Overview of Counselors' Perceptions in VCT Clinics**
The counselor's communication skills will help provide comfort during counseling. The counselor must use a way of communicating that is easy to understand, reduce unfamiliar terms or medical terms that are unfamiliar to clients, and be able to build a trusting relationship. In this study, respondents already have a high perception of the counselor. The perception of counselors is an example of external perceptions, where a person can change their perception of a VCT counselor based on the counselor's attitude during counseling to make someone able to accept all forms of explanation or actions taken by the counselor. Based on the results of a preliminary study conducted by researchers, health workers' availability as counselors in prison polyclinics includes 1 head doctor, 3 general practitioners, 1 nurse, 1 psychologist.

**Description of Prison Support to WBP**
Prisons are places that provide sustainable health services until they return to community health services in the community for prisoners when they return to society. Based on the research results, most of the respondents have high support, which means that the prison authorities have tried to maximize their efforts in providing support to prisoners. This support is in the form of efforts by the prison in the form of providing information through counseling or by spreading various forms of information media related to HIV/AIDS and VCT, providing all the facilities and infrastructure to support the implementation of VCT, in addition to providing drug cessation therapy which is one of the factors of HIV transmission. AIDS.

**Description of Support for Health Workers to WBP**
In this study, the majority of respondents have high support. This shows that the counselor is able to explain the benefits of VCT well and is able to provide advice that can be accepted by WBP, so that this is able to encourage for WBP to do VCT, and is one of the factors influencing WBP's participation in VCT. The main qualities of a counselor include being honest, listening actively, giving a fully positive response to clients, trusting clients, being sensitive to culture, helping clients with various alternatives, recognizing self-limitation, being patient, non-judgmental, always self-controlled, empathetic and knowledgeable.

**Overview of Support from Friends and Family to WBP**
According to the theory, the family plays a role in providing moral and spiritual support for family members who may want to know their HIV status or for family members who are already infected with HIV. There are 4 types of family support, including instrumental support, informational support, assessment support and emotional support. Apart from support from family, there is also support from friends. Some people are able to open up with friends they deem to be trusted, so that it is possible to achieve the goal of providing social support from friends. In this study, it shows that respondents already have high support from friends and family.

**Relationship between Education Level and WBP VCT Participation Level**
Basically, the higher the education level of a person with a high risk of HIV, the greater the perception of the seriousness of being infected with HIV/AIDS which will motivate him to take advantage of VCT. However, in this study, there was no significant relationship between education level and VCT participation rate. This study shows that many respondents with low education also do VCT. This can be because the knowledge they have is not
only obtained from formal education but can be through the media, as well as information from people around them. This study is comparable to research in Medan City which shows that the level of education does not affect the level of participation because more information about HIV/AIDS is obtained from fellow ODHA.  

**Knowledge Relationship and VCT WBP Participation Level**

According to Piaget’s theory, knowledge is a theory of adaptation because knowledge is formed or developed by the adaptation between the human mind and its environment. In this study, respondents with good or low education had almost the same percentage of participating in VCT. So that there is no significant relationship between knowledge and the level of participation because knowledge does not always make a person have a good perception of his own health level. High knowledge but not driven by their own desire to want to do VCT, this person tends not to do VCT. So it can be concluded that knowledge must also be accompanied by good self-perceptions and environmental support for both family and surrounding people who will also change perceptions and motivate them to do VCT.

**Relationship between Perceptions of VCT Service Needs and VCT Participation Rates**

Actions taken by individuals in seeking treatment and prevention of a disease being suffered are driven by the assumption of the disease’s seriousness to the individual or society. In this study, the perception of the respondent’s need for VCT services was high. However, respondents who have low perceptions are more likely to have done VCT. So that there was no significant relationship between perceptions of the need for VCT services and the level of participation. This is because he feels a need but is still afraid of the results he will receive, so they are reluctant to do VCT. Perceptions about VCT that are still often felt are fear of secrets and fear of the health status results that will be received. This can be a barrier to the use of VCT services.

**Relationship between Prison Support and WBP VCT Participation Rate**

Encouragement from the environment can be in the form of information or motivation. This study found a significant relationship between prison support and VCT participation rates. This study is in accordance with Lawrence Green’s theory which states that factors affecting a person to take advantage of health services can be influenced by environmental support, as the environment seeks to provide facilities and infrastructure to support health services. Social support is a form of situation that provides benefits for individuals that are obtained from other people who can be trusted, besides this support can also come from the environment. Prisons are places that provide continuous health services until they return to community health services in the community for prisoners when they return to the community developed by the Indonesian Ministry of Health, to reduce the prevalence of HIV-AIDS and STIs in prisons.

**Relationship between Health Worker Support and VCT Participation Rates**

The influence of health workers is seen from the support of health workers who are able to encourage their clients to take advantage of health services. In this study, a significant relationship was found between health workers’ support and the level of VCT participation. This research is in accordance with Lawrence Green’s theory which states that the driving factor apart from the environment can also come from health workers. Health workers provide various kinds of encouragement, either by providing direct advice or by taking actions by the health worker. The support of health workers is shown through the attitude and behavior of health workers who are good for informants who will do VCT. Also, with good interaction between the counselor and the client, the counselor will easily convey messages to change HIV/AIDS risk behavior.

**Friends and Family Support Relationships and WBP VCT Participation Rates**

Friends and family can be a source of information and emotional support as a place to share stories. In this study, respondents already have high friends and family support. However, respondents with high and low support levels from friends and family did not differ much in doing VCT. So that there was no significant relationship between friend and family support and the level of VCT participation. This is because friends and family are not fully able to provide an explanation regarding the VCT that WBP will undergo so that encouragement from friends and family is also not able to be given maximally, besides that most of the friends and family of WBP who come to visit also have a low level of education.

**CONCLUSIONS AND SUGGESTIONS**

Factors related to the prisoners’ level of participation in the implementation of the VCT program at the Class 1 Prison in Semarang are prison support factors and health personnel support. Each variable has shown excellent results, respondents have high perceptions, knowledge and support. However, the majority of respondents still have low education. Although the results of each variable have shown a good number, this does not mean that these variables affect VCT participation. To further increase the participation of prisoners in conducting VCT, prison authorities should provide a special VCT clinic to support the convenience of the counseling process, and continue to strive to improve the capacity of health workers as counselors.

**ETHICAL CONSIDERATION**

This research has been approved by the Health Research Ethics Commission (KEPK) Dr. Moewardi Surakarta with ethical clearance references number No. 671/VII/HREC/2017.

**CONFLICT OF INTEREST**

All author declares there is no conflict of interest regarding publication of this study.

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AUTHOR CONTRIBUTION

All authors had contributed equally on writing the original draft and agreed to final version of the manuscript for publication.

REFERENCE


