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## **FACTORS AFFECTING THE UTILIZATION OF VOLUNTARY COUNSELING AND TESTING (VCT) SERVICE AMONG FEMALE SEX WORKERS IN INDONESIA: A SYSTEMATIC REVIEW**

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### **Abstract**

*Human Immunodeficiency Virus - Acquired Immuno Deficiency Syndrome (HIV-AIDS) is one of depressing urban health encountered by the Indonesian citizen. Female sex workers are group at risk and one of the key of HIV transmission. During sexual intercourse, female sex workers didn't pay attention to the status of customer that infected with HIV / AIDS or not. This review present to identify factors and the most influence factors in the utilization of voluntary counseling and testing (VCT) service among female sex workers in Indonesia The method use online database such as [journal.fkm.ui.ac.id](http://journal.fkm.ui.ac.id), [journal.ugm.ac.id](http://journal.ugm.ac.id), [ejournal.undip.ac.id](http://ejournal.undip.ac.id), [jurnal.unair.ac.id](http://jurnal.unair.ac.id), [portalgaruda.id](http://portalgaruda.id) and google scholar. The keywords to search article in database online is fact or VCT or HIV-VCT or female sex workers. There are four eligible articles to review after filtered by inclusion criteria. Result from this review, factors in utilization of VCT services by female sex workers is perception of vulnerability of HIV/AIDS, perception of severity of HIV/AIDS, perception of benefits of VCT, VCT obstacle perception, motivation of*

*VCT, knowledge of HIV/AIDS and VCT, attitude of HIV/AIDS and VCT, facilities, support by counselor, beliefs about VCT, value of knowing their HIV status and motivation to comply other's support. The most influence factor is level of knowledge about VCT. Based on the result of this review and the description of articles, utilization of VCT Service among Female Sex Workers in Indonesia influenced by knowledge of VCT. For the next research can investigate about comparing the methods in the utilization of services in the female sex workers and other high-risk populations.*

### **Keywords**

HIV/AIDS, VCT, Female Sex Workers

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## **1. Introduction**

Human Immunodeficiency Virus-Acquired Immunodeficiency Syndrome (HIV-AIDS) is one of depressing urban health encountered by the Indonesian citizen (Health, 2013). The spreading of the HIV is incredibly fast and among HIV/AIDS sufferer a rapid treatment needs to be addressed for there has no cure invented yet. Since its first found in 1987 until December 2015, HIV-AIDS has spread in 407 (80%) cities in every province in Indonesia (Health, 2015). The number of HIV infection reported until December 2015 is 191,073 (Health, 2015), up until June 2016, the number of cases reported reaches 17,874 (Health, 2016). The number of AIDS reported accumulated from 1987 until December 2015 is 77,112 (Health, 2015) and reported in the middle 2016, the number reaches 3.267 (Health, 2016)

Based on the data, Female sex workers are group at risk and one of the key of HIV transmission (Health, 2013). The number of Indonesian female sex workers is estimated between 180,000-260,000 in 2012 (Health, 2014). The prevalence of both direct and indirect female sex workers declines as reflected in 2011 when the number lowered from 10.41% to 7.97% in 2015 for the direct ones and the number of the indirect ones lowers from 2.89% to 2.20 % in the same year (Health, 2016). Although the number declines, this this conditions must remain a concern because during sexual intercourse, female sex workers didn't pay attention to the status of customer that infected with HIV/AIDS or not (Sari, 2015). UNICEF Indonesia (2012) claims that those who are most vulnerable are those who know but choose to neglect the information regarding HIV by keep doing activities with huge risks.

Therefore, female sex workers and their customer as risk population are recommended to commit Voluntary Counseling and Testing (VCT). VCT counseling process includes pre-testing,

post-testing counseling, voluntary HIV testing and functioning knowing one's HIV status earlier (Health, 2005). In 2015, there are 2,221 VCT services spread in Indonesia (Health, 2015). Although the VCT services have spread in Indonesia, the knowledge of the existence of this service is extremely poor. The fear and confidentiality about the stigma and discrimination still become obstacle factor to increase the coverage and the understanding of HIV/AIDS testing (UNICEF, 2012).

Some studies manage to conduct research about the utilization of VCT among risk population, like female sex workers, drug users, gay men, and transgenders. The study conducted by Purwaningsih, *et al* (2011) provides the result claiming the motivating factor affecting the risks population to commit VCT is the vulnerability of being infected by HIV/AIDS, the level of seriousness felt towards the issue of HIV/AIDS, the perception of VCT, and the misperception of the particular service. Another study conducted among female sex workers to use utilization of VCT that associated with beliefs about VCT, value about themselves when exposed to HIV / AIDS and motivation from others to use utilization of VCT (Widiyanto, *et al*, 2009).

This study use systematic review based on the previous study in which the writer has not yet found there has any systematic review regarding this topic. Another consideration is the fact that there are problems being obstacles to use VCT coverage two of which are stigma and discrimination. Consequently, a systematic review is essentially necessary to investigate what factors affecting the utilization of VCT services among female sex workers by comparing the result of each journal. the objective of the findings is expected to become a consideration to make a policy or next program on the utilization of VCT services based on targeted population.

## **2. Method**

A systematic review based on the Preferred Reporting Items for Systematic Review and Meta-Analyses Statement (PRISMA) guide.

### **2.1 Search**

The systematic review used methods such as collecting data using online databases and make an inclusion criteria. The database used were journal.fkm.ui.ac.id, journal.ugm.ac.id, journal.undip.ac.id, journal.unair.ac.id, portalgaruda.id and google scholar for almost scientific journals were free to be accessed and the database were also the database owned by top universities in Indonesia. The terms used for the searching were 'factors or VCT', 'factors or

VCT or HIV/AIDS’, and ‘VCT’. Publications restrictions were studies published between the year 2006 to present to maintain the updated information.

## **2.2 Study Selection and Data Collection Process**

The sources of data were selected based on the titles, abstracts, full-text paper appropriate with the key words set in the beginning. Inclusion criteria used in this study covered the journals reviewed by the experts, titles and contents should describe the utilization of VCT by female sex workers. The exclusion criteria in this study are the journals containing abstract only.

The data collecting process by online database. The first process was scanning one by one whether there was any journal duplication. The second process was scanning by the titles and the contents described the utilization of VCT until the journal fit the criteria of eligibility.

## **2.3 Data Items**

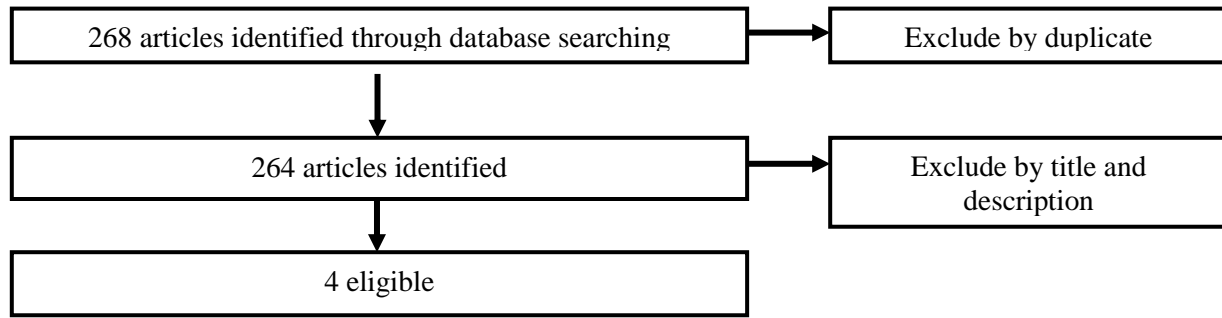
The key words that became the variables in the data searching had been previously mentioned. The keywords would make the searching process more specific. The data collected were the name of the author or writer, year of publication, sample, variables of study, and the result of the study.

## **2.4 Risk of Bias in Individual Studies**

The focus of this study was the result of the utilization of VCT services by female sex workers without screening the characteristics of each respondent in which generally the characteristics were associated with the variables to be studied.

## **3. Result**

The results on the online database found four journals are eligible.



**Figure 1:** *Process of Search Database*

**Table 1:** *Result of Systematic Review*

Author	Design	Sample Size	Variable Dependent	Result
Fibriana, Arulita Ika (2013)	Cross sectional study	93	<ol style="list-style-type: none"> <li>1. Perception of vulnerability of HIV/AIDS</li> <li>2. Perception of severity of HIV/AIDS</li> <li>3. Perception of benefits of VCT</li> <li>4. VCT obstacle perception</li> <li>5. Motivation of VCT</li> </ol>	There are associated with all variables: <ol style="list-style-type: none"> <li>1. Perception of vulnerability of HIV/AIDS</li> <li>2. Perception of severity of HIV/AIDS</li> <li>3. Perception of benefits of VCT</li> <li>4. VCT obstacle perception</li> <li>5. Motivation of VCT</li> </ol>
Wulandari, et al (2015)	Cross sectional study	109	<ol style="list-style-type: none"> <li>1. Level of knowledge of VCT and HIV</li> <li>2. Attitude of HIV and VCT</li> <li>3. Facilities</li> <li>4. Support by counselor</li> <li>5. Support by the others</li> <li>6. Social environment</li> </ol>	There are associated in some variables: <ol style="list-style-type: none"> <li>1. Level of knowledge of HIV/AIDS and VCT</li> <li>2. Attitude of HIV/AIDS and VCT</li> <li>3. Facilities</li> <li>4. Support by counselor</li> </ol>
Mujiati, et al (2013)	Crossectional design	126	<ol style="list-style-type: none"> <li>1. Factor of perception</li> <li>2. Factor of Attitude</li> </ol>	<ol style="list-style-type: none"> <li>1. Perception factor is not associated with utilization of VCT</li> <li>2. Attitude factor is not associated with utilization of VCT</li> </ol>

Widiyanto, et al (2009)	crosssectional	90	<ol style="list-style-type: none"> <li>1. belief on VCT</li> <li>2. Value knowing their HIV status</li> <li>3. Support by the others</li> <li>4. motivation to comply other's support</li> <li>5. Practice of VCT clinic</li> <li>6. Environment</li> </ol>	There are associated with some variables : <ol style="list-style-type: none"> <li>1. Belief on VCT</li> <li>2. Value of knowing their HIV status</li> <li>3. Motivation to comply other's support</li> </ol>
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Based on the four eligible journals, a similarity in methodology was found in all four of them which was cross-sectional study. The review outcomes also showed some factors affecting the utilization of VCT by the female sex workers which were the perception of vulnerability of HIV/AIDS, perception the severity of HIV/AIDS, the perception of benefit of VCT, the perception of the obstacles of the VCT, the motivation of VCT, level of knowledge of VCT and HIV/AIDS, attitude towards VCT and HIV/AIDS, facilities, support by counselor, belief in VCT, motivation to comply other support, and the value of knowing their HIV status. However, based on the studies, the writer decided to categorize some factors into one variable due to the similarity of the means by the discussion in each journal . The factors the writer meant were the perception of benefit of VCT, belief in VCT, and level of education. All three of them were categorized into one variable which was the knowledge regarding VCT. Consequently, the knowledge of VCT became the most dominant factor in determining the utilization of VCT services.

#### **4. Discussion**

The knowledge about VCT among the female sex workers is considered low from all of the articles analyzed by the writer. VCT as one of the strategies in preventing HIV, allows everyone receiving equal access to all healthcare facility such as form of information, education, therapy, or even psychosocial support. By opening the access, the necessity of the accurate information will be fulfilled, feeling, so a healthier lifestyle will be able to be established. The components of the VCT are pre-test counseling, HIV testing, and post-test counseling (Health 2006 and 2008).

The knowledge about HIV/AIDS also becomes one of the main factors in accessing VCT services. Knowledge is a very important domain in determining behavior (Notoatmodjo, 2012).

Knowledge is formed not only by formal education, but it can also be obtained from non-formal education, such as communication, information, and education. Knowledge is also one of the foundations in determining proper behavior (Notoatmodjo, 2012). The poor knowledge about HIV/AIDS tends to create negative behavior in accessing VCT services.

The next factor is the facility in which the completeness of any kinds of facility related to VCT on additional information, such as the leaflet, brochure, and any other media is required for informing female sex workers to enhance their knowledge (Wulandari, 2015). Knowledge about the availability of services in healthcare facilities make a person to use the utilization (Commission, 2006).

The support of the counselors also becomes one of the factors in the utilization of VCT. The counselor may help clients to change the risky behavior and inform the HIV prevention (Health, 2004). The obstacle in accessing VCT is the financial compensation. As what's stated in The theory of Health Belief Model states that in order to prevent and administer HIV/AIDS medications, it is the perceived cost (which basically means the perception about the financial that make individuals didn't want to reach out health treatment) that takes parts.

Factors the knowledge of VCT becomes the dominant factor in determining the accessibility to VCT. The knowledge about the VCT is associated with the perception of benefits of VCT where individuals will consider that alternative will be make a benefit to decrease the disease (Fibriana, 2013). There has also perception claiming that female sex workers can still protect themselves without use VCT services. That happens due to the lack of the spread of information and education in high-risk populations, such as female sex workers.

## **5. Limitation**

This study does not associate between characteristics of the respondents and the outcome of the determining factors in accessing VCT in which generally, the characteristics of the respondents need possess certain relevance towards the factors to be studied. Another limitation is that there have not many articles regarding the utilization of VCT service among female sex workers.

## 6. Conclusion

Based on the result of eligible journals, the most dominant factor in the utilization of VCT by female sex workers as knowledge about VCT. Based on this systematic review are expected to do a systematic review with comparing the methods in the utilization of services in the female sex workers and other high-risk populations.

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