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# Analizing Associated Factors to the Utilization of Voluntary Counselling and Testing (VCT) by Female Sex Workers (FSWs) in Palu, Indonesia

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# **Abstract**

Voluntary counseling and testing (VCT) is the entry point for health services, treatment, and care for people with HIV / AIDS. VCT is also a very important role in increasing knowledge and awareness to prevent HIV / AIDS through counseling. As a high-risk group, the FSWs in Palu still lacking utilizing VCT clinics are available. This study aimed to analyze the factors associated with utilization of VCT in FSWs in Palu. This research is analytic observational, cross-sectional approach. The population in this study is all FSWs in Palu. Sampling using non-probability method with accidental sampling technique, obtained a sample of 77 respondents. Results of the analysis showed that the variables associated with the utilization of VCT is age ( $\rho$  = 0.034), knowledge ( $\rho$  = 0.049), attitude ( $\rho$  = 0.002), the support of those closest ( $\rho$  = 0.000). The variables that are not associated with the utilization of VCT is a long work as FSWs ( $\rho$  = 0.266) and education level ( $\rho$  = 0.426). in conclusions, support the nearest people needs to be improved and developed in this case health workers and NGOs because it greatly affects the FSWs in utilizing VCT.

Keywords:	HIV/AIDS;	VCT;	FSWs.

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#### 1. Introduction

Recently, the total number of HIV or AIDS victims have increase, especially in High Risk Group specifically for sex workers and their couple, injecting drug user, also transsexuals in some provinces in Indonesia.

Therefore, the dispersion possibility of HIV infection risk to the society should not be ignored. Most of them that get HIV infection risk don't know about their HIV status, either or not they are infected [1]. The initiative to do HIV Test in Indonesia is still very less. In 2013, the data show that there are 5 million people that conducted HIV Test. besides, the the estimation of people who are infected by HIV about 350.000 people, but the report only 100.000 people. This condition is opposite with the condition in South Africa and Brazil. In South Africa there are 50 million people, 15 million of them have conducted HIV Test. Then in Brazil, it's estimated that 25% of citizen have conducted the test [2].

In 2013, the total number of people that conduct VCT in all VCT clinics in Palu are 2.053 people, while in 2014(January-June) are 1.001 people. The utilization of VCT in Palu is still very less especially FSWs. In 2013, there are only 90 people or 27% that utilize the VCT. As the result, the utilization of VCT in Palu is not maximal such in Palu health office target about 100 % [3]. Having lack knowledge and comprehension about HIV/AIDS, the misunderstanding about how HIV/AIDS infection, lack of medical treatment access could be the factor of AIDS stigmatization [4].

In 2011, Wang et.al conducted the research. The results show that there are relation between behavior, education level, and support about the utilization of VCT. Then in 2011, Suzane C. Hutagalung conducted the research. The result show that variable that influence the utilization of VCT KPAD Balige clinics are age variable, income, and knowledge about HIV/AIDS [5,6]. The objective of this research is to know the factor (age, work duration as FSWS, level of education, level of knowledge, behavior, and relative support) have relation with the utilization of VCT by FSWS in Palu.

#### 2. Research Method

In conducting the research. The researcher apply analitic suvey with cross sectional study approach to know factors related to the utilization of VCT.

# 2.1 Population and Sample

This research was conducted in Palu. The population of this research were 327 FSWs in Palu in 2014. The sample of this research were 77 FSWs. The sample was taken by applying accidental sampling which take sample by chance or available in some places based on the research context.

#### 2.2 Data Collection

Primary data of this research was collected directly by doing interview and qutionaire to FSWs in Palu. Secondary data of this research was gotten from Palu Healty Official and Central Sulawesi KPA.

#### 2.3 Data Analysis

#### 2.3.1 Univariat

To know the distribution frequency of each variable, either dependent variable or independent variable. The data are presented in frequency tabel to explain the characteristic of each variable that is researched.

#### 2.3.2 Bivariat

Bivariat analysis is conducted to know the relation between dependent variable (the utilization of VCT) and independent variable (age, level of education, work duration as FSWs, knowledge, behavior, and relative support).

#### 3. Results

#### 3.1 The Relation between Age and the Utilization of VCT

The analysis result show that there is a significant relation between the age and the utilization of VCT by FSWs in Palu. It as showed with  $X^2_{count}$  is higher than  $X^2_{table}$  (4,094>3,841) and p value is less than  $\alpha$  value (0,043<0,05). To see the relation strength used  $\varphi$  coefficient (Phi), it has been gotten u=0,260 means that the relation is weak. Based on  $\varphi$  value, age has contribution 26% in the utilization of VCT. Frequency distribution of respondent group under 25 years old, there are only 30% use VCT and 20% don't use VCT. While the group that up to 25 years old or 25 years old, use VCT about 59,6% and 40,4% don't use VCT.

# 3.2 The relation between work duration and the utilization of VCT

The analysis research show that there is not significant relation between work and the utilization of VCT, it is showed by  $\rho$  value (0,266) is more than  $\alpha$  value (0,05). Frequency distribution to the respondent based on the work duration as FSWs in this research the new FSWs respondent group is the highest.

## 3.3 The relation between level of education and the utilization of VCT

The analysis result show that there is not significant relation between level of education and the utilization of VCT by FSWs in Palu. It is showed by  $\rho$  value (0,426) more than  $\alpha$  value (0,05). Frequency distribution of responden in education group, that use VCT about 66,7% and who don't use VCT about 33%, while in low education level about 65 people, use VCT 49,2% and don't use VCT about 50,8%.

### 3.4 The relation between knowledge and the utilization of VCT

The result analysis show significant relation between knowledge and the utilization of VCT, its showed by  $\rho$  value (0,049) is less than  $\alpha$  value (0,05). To see the strength of relation is used  $\varphi$  coefficient (Phi), in this research  $\varphi$  value=0,243 means the relation is low. Based on that  $\varphi$  value, knowledge level has contribution 24,3% in the utilization of VCT. Frequency distribution of respondent group is high level of knowledge about

73 people, number of VCT about 45,2% and 54,8% the utilization of VCT. While in low level of knowledge about 4 people, all (100%) don't use VCT.

# 3.5 The relation betwen behavior and the utilization of VCT

The analysis result show that there is a relation between behavior and the utilization of VCT, it showed by  $\rho$  value (0,02) less than  $\alpha$  value (0,05). To the strength relation used coefficient  $\varphi$ , is gotten  $\varphi$  value 0,354 means the strength is low. Based on coefficient  $\varphi$ , behavior has contribution about 35,4%. Frequency distribution of respondent group that has good behavior in this research are 69 people, don't use VCT about 42% and use VCT about 58%. Different from respondent group with bad behavior, all of them (10%) don't use VCT.

#### 3.6 The relation between support from relative and the utilization of VCT

The anlaysis result show that there is a significant relation between relative support and the utilization of VCT.  $\rho$  value (0,000) less than  $\alpha$  value (0,05). To see the strength of  $\phi$  coefficient, gotten  $\phi$  value 0,430 means relation strength is low. Based on  $\phi$  value, relative support take contribution about 43% to the utilization of VCT. Frequency distribution of responden in support of relative group about 46 people, use 69,6% and the people that they don't use about 30,4%, while respondent group that don't have relative support about 31 people, use VCT about 25,8% and don't use VCT about 74,2%.

Tabel 1. The relation between independent variable and the utilization of VCT in Palu

	Utilization of VCT					D 1: C	
Independent Variable	Not Utilize		Utilize		Total		Result of statistical test
	n	%	n	%	n	%	test
Age							
24-25 years	14	70	6	30	20	100	ρ=0,043
25-49 years	23	40,4	34	59,6	57	100	
Work duration as FSWs							
New	35	50,7	34	49,3	69	100	$\rho = 0,266$
Longer	2	25	6	75	8	100	
Level of education							
Low	33	50,8	32	49,2	65	100	$\rho = 0,426$
High	4	33,3	8	66,7	12	100	
Level of knowledge							
Low	4	100	0	0	4	100	$\rho = 0.049$
High	33	45,2	40	54,8	73	100	
Behavior							
Bad	8	100	0	0	8	100	$\rho = 0.002$
Good	29	42	40	58	69	100	
Support							
Lacks support	23	74,2	8	25,8	31	100	$\rho = 0.000$
Have support	14	30,4	32	69,6	46	100	

#### 4. Discussions

This study shows the relationship between WPS age, level of knowledge, attitude and support from relative to the utilization of VCT. These results are consistent with studies that have been conducted by [6-11].

Looking at the frequency distribution, the majority of WPS in Palu aged over 25 years and it is a positive thing,

where the high age of the Easier it is to push the WPS VCT. Most WPS was aged under 25 years even some respondents there are still only 19 years old, it is a constraint Because it requires more support in utilizing VCT, Because young WPS / teenagers growing niche to have a lot of customers that has great potential to increase of the spread of HIV / AIDS. WPS level of knowledge residing in Palu city is good, it is associated with the incessant intervention of the government, health agencies, and NGOs Gave the counseling, counseling, and outreach to high-risk groups Including WPS. In the whole group does not take advantage of the low knowledge of VCT whereas in the group of high-level knowledge more that utilize VCT, it Explains the relationship between knowledge and utilization of VCT. WPS in the Palu city largely has had a positive attitude towards VCT and HIV / AIDS, it is due to the onslaught of health workers and members of NGOs in providing the correct understanding of the importance of knowing the status of HIV / AIDS, how to Prevent HIV / AIDS, and treatment of HIV / AIDS so that WPS has Become more open to the VCT program. majority of FSW in Palu has had support for VCT are mostly support Came from health institutions / NGOs like PKBI then a fraction derived from pimps and coworkers.

Based on observations, WPS under the age of 25 years or still are relatively teens / young adults have less awareness for health care in the health service in Palu city either to Determine the status of STI and HIV / AIDS in particular, in contrast to the old WPS over 25 years are classified as adult parent or parents who growing niche to be proactive in checking into the health service. That Is Because The WPS were teenagers or young adults (<25 years) still have excellent physical condition or rarely feel pain and are relatively young as WPS productive so much less awareness to consult a health care. In contrast to the WPS over the age of 25 years, they tend range to be proactive Because it has the symptoms of sexually transmitted infections and diseases in general tend range to be less productive as WPS or less customers so that there is an effort to improve health, especially to be able to maintain productivity, as well as the old WPS growing niche have a lot of experience and exposure of reproductive health education that Reinforces Reviews their awareness to consult the place of health services, Including VCT, the group of high-level knowledge of WPS Although many already have a high knowledge about HIV / AIDS but still utilize VCT, it is Because almost all respondents argued not utilize VCT Because it was concerned about the status of Reviews their HIV / AIDS, in addition to The ignorance of them will be the time and place of VCT, as well as the absence of permission from the who pimps of make them do not take advantage of the existing VCT clinic. the group of respondents who have an positive attitude still many do not take advantage of VCT, the main thing is the reason they do not take advantage of VCT Because there are still doubts or worries, do not know the time and place of VCT, no vehicle access to VCT, and not given permission by pimps to visit the VCT clinic that has been available. Whereas in the group of respondents who have a negative attitude, everything is not utilizing VCT. It shows a poor attitude towards VCT and HIV / AIDS makes a person does not take advantage of VCT, Because HIV testing (VCT) is voluntary or not to force the position taken by someone very decisive utilization of VCT. In the group of respondents who had the support of the closest people, the majority are already utilizing VCT but still there are not utilizing VCT. This happens because of the persistence of anxiety, lack of knowledge of VCT and HIV / AIDS, poor attitude, and ignorance of the time and place so that they do not utilize VCT. In contrast to the group of respondents WHO do not have the support of the majority of people do not take advantage of VCT nearby but there is a small part that utilize VCT, it is Because they have a good knowledge and good attitude towards VCT. Thus Spake, even though they

do not have the support of Reviews those closest, they still the make use of VCT. In this study, the Largest provider of support to the WPS in utilizing VCT is health institutions (health workers) and NGOs. -Provided support in the form of outreach WPS in Palu city, in this case Gives a boost to the health check, knowledge about HIV / AIDS, condom distribution, and other Efforts to raise awareness of the importance of prevention and treatment of female sex workers with HIV / AIDS. most of the WPS in Palu city is a newcomer, the which is derived from Java and other areas outside of Palu city, so that they are away from their families. In addition, many WHO worked as WPS unbeknownst to Reviews their families so that the family's role in giving impetus to the WPS for health check (VCT) is very less even no.

In addition, the variables in this study were not related to the utilization of VCT is long worked as FSW and education levels. It proficiency level incompatible with the studies [5,6,10,12,13].

Looking at the frequency distribution, the majority of WPS in Palu has a working life that is new is the average work as WPS for 6 months, it is clear that FSWs who primarily work in ex-localization is still in the learning phase or adjust to Reviews their work as WPS. This is a challenge for health care workers and outreach WPS in providing support in particular the introduction of health care facilities and infrastructure in Palu city Including VCT clinics Because some respondents do not utilize VCT who unwarranted not know where VCT clinic in the city of hammer. WPS is the kind of work that many use the community with social status, economic, and education is so low that it takes hard work of outreach and health workers in improving knowledge and awareness to utilize VCT. It has been proven with more WPS that despite having a low level of education but had used VCT than Reviews those not utilizing VCT. Therefore, the support of health workers and the outreach team should be improved to cope with low education levels in WPS.

Based on observations, the majority of the WPS is a new worker who worked in ex-localization and coordinated street karaoke place in Palu city, while WPS who has long worked rarely found in Reviews such places. That's Because many FSWs are classified as long-works have had many customers as well as experience in the job, so they prefer to work alone without interference from pimps or manager and operates in a boarding house or contract home in Palu city. WPS located in places Reviews such as ex-localization coordinated lacks customer contacts and experience in the WPS work Because The majority of them are from the island of Java and other areas outside of Palu city, so they are very dependent on the pimp / manager to work as WPS in Palu.

#### 5. Conclusions

Based on the data, it can be concluded that:

- 5.1 There is a relation between FSWs age and the utilization of VCT ( $\rho$ =0,043).
- 5.2 There is no relation between work duration as FSWs and the utilization of VCT ( $\rho$ =0,266).
- 5.3 There is no relation between education level of FSWs and the utilization of VCT ( $\rho$ =0,0634).
- 5.4 There is a relation between HIV/AIDS knowledge level of FSWs and the utilization of VCT ( $\rho$ =0,049).
- 5.5 There is a relation between FSWs behavior and the utilization of VCT ( $\rho$ =0,002).
- There is a relation between support from relative and the utilization of VCT ( $\rho$ =0,000).

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#### Refferences

- [1] Ministry of Health. 2006, Guidelines for Counseling and Testing Services HIV / AIDS voluntary (Voluntary Counseling and Testing), DG & PL, Jakarta.
- [2] Gomez, VD, 2014, Low HIV Testing Initiative in Indonesia, accessed 5 October 2014, <a href="http://www.flobamora.net/berita/2923/2014-07-13/rendah-inisiatif-tes-hiv-diindonesia.html">http://www.flobamora.net/berita/2923/2014-07-13/rendah-inisiatif-tes-hiv-diindonesia.html</a>
- [3] Palu City Health Office, 2014, List of VCT and STI Palu City Health Department, Division of FMD,
- [4] Whetten K, S Reif, R Whetten, LK Murphy-McMillan, trauma, mental health, distrust and stigma Among HIV-postive persons: Implications for effective care, Journal of Psychosomatic Medicine, vol. 70 (2008), pp. 531-538
- [5] Wang, Y, Li, B, Pan, J, Sengupta, S, Emrick, CB, Cohen, MS, Henderson, GE 2011, 'AIDS Behav', Factors Associated with Utilization of a Free HIV VCT Clinic by Female Sex Workers in Jinan City, Northern China, vol. 15, no. 4, pp. 702-710.
- [6] Hutagalung, SC 2011, Influence of Demographic and knowledge of commercial sex workers about HIV / AIDS on VCT Clinic Services Utilization Committee on HIV / AIDS in Toba Samosir, Thesis, University of North Sumatra, Medan.
- [7] Obayo, E, 2010, Evaluation of VCT utilization by women in Kenya using the logistic regression models, Theses university of nairobi, Kenya.
- [8] Aiyenigba, B, Ogunbiyi, B, Badru, T, Suzuki, C, Hamelmann, C & Chabikuli, O 2011, 'Determinants of HIV voluntary counseling and testing (VCT) Among female sex workers (FSW) in Nigeria', 6th IAS Conference on HIV Pathogenesis and Treatment: Abstract no. MOPDC0104, accessed 6 December 2014, <a href="http://www.iasociety.org/Default.aspx?pageId=11&abstractId=2007-4282">http://www.iasociety.org/Default.aspx?pageId=11&abstractId=2007-4282</a>.
- [9] Syahrir, W, Amiruddin, R, Wahiduddin, 2014, factors related to the clinical use of voluntary counseling and testing (VCT) in Makassar city health centers, thesis, Hasanuddin University, Makassar.
- [10] Barus, DJ 2012, Relationship Factors Supporting and Strengthening factor PSK (Commercial Sex Workers) with Clinical Utilization of VCT (Voluntary Counselling Testing) in Puskesmas District of articles for Bandar Baru Travel Deli Serdang In 2012, Thesis, University of North Sumatra, Medan.
- [11] Aswar, S, Arifin, S, Ridwan, MT, 2013, Determinants of Use of Services Voluntary Counseling and Testing (VCT) by Housewife High Risk of HIV Positive in Biak Numfor Papua, thesis, Hasanuddin University, Makassar.
- [12] Afriana, N 2012, factors associated with the incidence of gonorrhea infection in female commercial sex workers in 16 districts / cities Indonesia (secondary data analysis of integrated biological and behavioral surveys 2011), thesis, University of Indonesia, Depok.

[13] Sholihin, N 2012, Factor - Factor Utilization Services Community Health Center (Puskesmas) II Pond, District Pond, Banyumas, Thesis, University Muhamadiayah Purwokerto, Purwokerto.