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**The Affecting Corelation Between Adherence Cst Service
To Coinfeksi Pasien Tb-HIV At Poli Tb Dots Jayapura
General Hospital Papuan Province**

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Abstract

One of HIV / AIDS program at center services health as Hospital etcetera be done service essays HIV. Poli TB Paru RSUD Jayapura is one of institution which performs procedure essays HIV by applied PITC and CST'S service implement divides HIV positive. Service CST is service one be given unto by patient HIV positive to access care, support and cure. The aims of this study were to analyze factor that are engaged visit regularity service *Care Support and Treatment* (CST) on co-infection TB HIV's patient at Poli TB DOTS RSUD Jayapura. Method was used an analytic observational type by use of approaching study *cross sectional*. Research is done at Poli TB Paru RSUD Jayapura on December 2016. Population in observational it is patient with TB HIV that accesses to service CST on January until with year October 2016 total one 83 person as sample. Data acquired to utilize questioner and analyzed utilizes chi square.

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Result indicated that no variable relationship to visit regularity services CST on co-infection TB HIV's patient at Poli TB DOTS RSUD Jayapura is age (p value 0,154; $RP = 1,733$; $CI95\% = 0,873 - 3,439$), gender (p value 0,483; $RP = 10,756$; $CI95\% = 0,418 - 1,366$) and health officer support to visit regularity services CST on co-infection TB HIV's patient at Poli TB DOTS RSUD Jayapura (p value 0,062; $RP = 1,865$; $CI95\% (1,039 - 3,348)$). Meanwhile associate variable to visit regularity services CST on co-infection TB HIV's patient at Poli TB DOTS RSUD Jayapura is family income(p value 0,004; $RP = 4,179$; $CI95\% = 1,386 - 12,595$), science(p value 0,000; $RP = 7,951$; $CI95\% = 3,673 - 17,210$), attitude(p value 0,001; $RP = 2,891$; $CI95\% = 1,584 - 5,277$), access services CST (p value 0,010; $RP = 2,292$; $CI95\% = 1,288 - 4,078$) and family support(p value 0,004; $RP = 2,632$; $CI95\% = 1,363 - 5,079$).

Keywords: Regularity; CST'S service; co-infection TB HIV's patient.

1. Introduction

AIDS (Acquired Immune Deficiency Syndrome) is a collection of various symptoms due to reduced immune system or immune humans as a result of HIV infection. In the course of time when people with HIV-AIDS, which is commonly referred to as PLHIV, no action was taken in the treatment of pediatric HIV / AIDS. In this stage may arise various infectious diseases called opportunistic infections. Gradually the PLHIV will fall in the terminal phase and eventually died. HIV weakens the immune system of the human body, usually only one of the two types of virus (HIV-1 or HIV-2) which is progressively damaging white blood cells (lymphocytes), causing reduced or failure of the immune system. People with HIV / AIDS (PLWHA) with decreased immune system progressively and facilitate the occurrence of opportunistic infections (OI) [1].

Most people living with HIV do not know their HIV status when the phase is asymptomatic (without symptoms) and widow period. New symptoms appear years after infection, so that people living with HIV actually come to the health service after they have been exposed to opportunistic infections. The number of people living with HIV / AIDS up in August 2016 as many as 78 million people infected with HIV / AIDS and the death of about 35 million inhabitants. The discovery of HIV / AIDS cases as many as 2.1 million people in August 2016 and obtain anti-retroviral therapy virus (ARV) as many as 17 million people (WHO, 2016). Indonesia be on the order of 68 countries with HIV / AIDS in world. Number of people living with HIV / AIDS in Indonesia in 2015 as many as 98 390 people [2,5]. Papua ranks third as many as 22 123 (22.36%), consisted of 8310 HIV patients and 13 813 declared cases of AIDS. While per 30 September 2016 as many as 25 349 9371 consisted of HIV sufferers and 15 978 declared cases of AIDS. This figure is certainly much improved the last five years in 2010, as many as 21 591 people living with HIV and AIDS as many as 6845 people. The cumulative data of patients co-infected TB-HIV in the last 3 years in Papua continues to increase. In 2013, there were 2064 patients, 2014 as many as 1,491 people, in 2015 as many as 1596 and 2016 as many as 1836 people. The cumulative number of HIV / AIDS and death of people living with HIV in Indonesia tends to increase [6-9].

One of the programs to combat HIV / AIDS in health care centers such as Hospital, Center for Lung Health Community (BKPM) and so on have been conducted HIV testing services through PITC program. Poli TB

DOTS is an institutional health care provider in the pulmonary community service also implementing HIV testing procedure with PITC method (Provider Initiated HIV Testing and Counseling) in which there are services CST. HIV testing with PITC method applied in Poli DOTS TB Hospital Jayapura since the discovery of HIV positive cases originated from patients Tuberculosis that later with signs and symptoms of HIV so the clerk initiative for an HIV test. Pulmonary TB is concomitant diseases HIV (opportunistic infections) are the greatest people living with HIV, an estimated 50-75% of PLHIV in Indonesia suffered from tuberculosis in his life.. Poli TB DOTS Jayapura General Hospital is one of the institutions that carry out HIV testing procedure with PITC method and application services for HIV-positive CST. PITC is an HIV testing and counseling is initiated by health workers to visitors of health care facilities as part of standard medical care, while the CST service is a service provided to HIV-positive patients to access care, support and treatment [7-9].

So right if Poli DOTS TB Hospital Jayapura using PITC and by opening the CST services for HIV-positive patients found here originated from pulmonary TB patients. CST service program aims to help people living with HIV and families resolve issues such as medical problems faced by people living with HIV such as opportunistic infections, symptomatic symptoms associated with AIDS, co-infection, the body's immune recovery syndrome as well as side effects and drug interactions ARV. While the psychological problems that may arise with regard to HIV infection are depression, anxiety (anxiety), cognitive disorders and personality disorders to psychosis. Social problems that can arise in HIV is discriminatory, stigmatization, termination of employment, divorce, and the financial burden to be borne by people living with HIV. Psychosocial and socioeconomic problems are often not only faced by people living with HIV but also by family and their close relatives.

Research conducted by Rahmatin [10] on TB-HIV co-infected patients in lung health centre, Semarang revealed that there is a correlation between knowledge, attitude, CST access service, support personnel and family support services to the regularity of visits CST TB-HIV co-infection. Regularity is a condition where patients adhere to their treatment based on self consciousness not only because obey the doctor or health worker. Compliance should be monitored and evaluated regularly at each visit. The regularity of this visit is closely related to health behaviors of individuals. Health behavior is a person's response to stimuli or objects related to the health-illness, disease, and factors that disjunction. In other words, health behavior is any activity or activities of someone either observable (observable) and unobservable (unobservable), relating to the maintenance and improvement of health [11]. Data Poli DOTS TB Hospital in Jayapura, the number of TB patients in 2016 (January-October 2016) of 270 patients. The number of new TB-HIV patients by 2016 as many as 29 patients. Number of TB-HIV patients accessing the services CST until November 2016 on 80 patients. From the data CST PLWHA to access services in the last 6 months of intensive visits CST is 60% regular. While the target regularity of service Visits CST 90% in patients with TB-HIV. The low participation of people living with HIV who access services CST every month for 6 months from June to November 2016, it became the responsibility of health workers involved. PLHIV are much needed service CST as it relates to counseling, access to antiretroviral drugs and physical examination if there is a complaint that will be quickly handled, and social support in peer support groups. Moreover, TB-HIV patients require special attention to adherence necessary to comply anti Tuberculosis and antiretroviral Therefore every PLWHA should intensively CST every month to access services.

Based on these issues, researchers interested in conducting the study factors related to regularity of service visits CST (Care Support and Treatment) in patients co-infected with TB-HIV in TB DOTS Poli Jayapura General Hospital.

The aim of research to determine the factors associated with the regularity of service visits Care Support and Treatment (CST) on TB-HIV co-infected patients in TB DOTS Poli Jayapura General Hospital.

2. Materials and Methods

This study was an observational study with cross sectional study design.

In a cross-sectional study researchers looked for relationships between the independent variables (risk factors) and dependent variables (effects) by measuring in a moment. Not all subjects in check on the day or the same time, but both risk variables and the effect is measured according to the condition or status at the time of observation, so the cross-sectional design was no follow up procedure [12].

This study took place Dipoli DOTS TB Hospital Jayapura in December 2016. Populasi in this study was patient registered in 2016 in Poli DOTS TB Hospital Jayapura. In this study, the selection of a population based on the characteristics that have been determined by researchers.

The population in this study came from patients with TB-HIV accessing the services CST January to October 2016, amounting to 83 people as a sample. The data were obtained using a questionnaire and analyzed using square ch.

3. Results of Research

3.1 Univariate analysis

The frequency distribution of independent and dependent variables are presented in Table 1.

Based on Table 1, shows that most respondents in the age group <30 years as many as 50 people (60.2%), male gender - male as many as 43 people (51.8%), family income is less by 56 people (67.5%), good knowledge of as many as 56 people (67.5%), the attitude of supporting as many as 53 people (63.9%), access to services easier CST 54 people (65.1%), support health workers to support as many as 50 people (60, 2%), the support of family support as many as 45 people (54.2%) and the regularity of visits on a regular CST many as 54 people (65.1%).

3.2 Analysis Bivariate

a. Community Relationships to the regularity of service visits CST

Respondents were aged > 30 years were mostly regular visits CST services. More details can be found in Table 2.

Table 1: Distribution of Independent and Dependent Variables

No	Variable	Frequency (n)	Percentage (%)
1	Age		
	< 30 year	50	60,2
	≥ 30 year	33	39,8
2	Sex		
	Male	43	51,8
	Female	40	48,2
3	Family income		
	Less	56	67,5
	Good	27	32,5
4	Knowledge		
	Less	27	32,5
	Good	56	67,5
5	Attitude		
	Not support	30	36,1
	Support	53	63,9
6	Access service of CST		
	Difficult	29	34,9
	Easy	54	65,1
7	Health staff support		
	Not support	33	39,8
	Support	50	60,2
8	Family support		
	Not support	38	45,8
	Support	45	54,2

9 CST visit regularly

Not regularly	29	34,9
Regularly	54	65,1
Total	83	100

Table 2: Community Relationships to regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Age	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	< 30 year	21	42	29	58	50	100
2	≥ 30 year	8	24,2	25	75,8	33	100
Total		29	34,9	54	65,1	83	100
<i>p-value = 0,154; RP = 1,733; CI95% (0,873 – 3,439)</i>							

Table 2 shows that out of 50 people aged <30 years as many as 21 people (42%) did not regularly perform regular service visits CST and as many as 29 people (58%).

While 33 respondents aged > 30 years as many as eight people (24.2%) did not regularly perform regular service visits CST and as many as 25 people (75.8%). The test results on the value of chi square statistic significance of 95% = 0.05) was obtained p-value of 0.154 or $p < \alpha (> \alpha (0.05))$.

This means that there is no regularity of service visits of against CST in patients co-infected with TB-HIV in TB DOTS Poli Jayapura General Hospital. When viewed from the RP = 1.733; CI95% (0.873 to 3.439) are not meaningful.

b. Relationships sex against the order of service visits CST

The respondents were female percentage is slightly more regular visits CST services. More details can be seen in Table 3 below.

Table 3 shows that of the 43 sex male - female as many as 13 people (30.2%) did not regularly perform regular service visits CST and as many as 30 people (69.8%). While 40 respondents were female as many as 16 people (40%) did not regularly perform regular service visits CST and as many as 24 people (60%). The test results on

the value of chi square statistic significance of 95% ($\alpha = 0.05$) was obtained p-value of 0.483 or $p > \alpha$ (0.05) and the value of RP = 10.756; CI95% (0.418 to 1.366). This means no relationship between sex with regularity of SCT service visits on TB-HIV co-infected patients in TB DOTS Poli Jayapura General Hospital.

Table 3: Relationships of Sex with the regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Sex	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	Male	13	30,2	30	69,8	43	100
2	Female	16	40	24	60	40	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,483; RP = 0,756; CI95% (0,418 – 1,366)							

c. relationships of family income against the regularity of service visits CST

Respondents who have a family income more fairly regular visits CST services. More details can be found in Table 4 below.

Table 4: a. relationships of family income against the regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Family income	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	Less	26	46,4	30	53,6	56	100
2	Enough	13	11,1	24	88,9	27	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,004; RP = 4,179; CI95% (1,386 – 12,595)							

Table 4 shows that of the 56 people with family incomes of less than 26 people (46.4%) did not regularly perform regular service visits CST and as many as 30 people (53.6%). While the 27 respondents with a family income quite as many as 13 people (11.1%) did not regularly perform regular service visits CST and as many as 24 people (60%). The test results on the value of chi square statistic significance of 95% ($\alpha = 0.05$) was obtained p-value of 0.004 or $p < \alpha$ (0.05). This means that there is a family income the regularity of service visits CST

on TB-HIV co-infected patients in TB DOTS Poli Jayapura General Hospital. When viewed from the $RP = 4.179$; $CI95\%$ (1.386 to 12.595) interpreted that respondents with a family income of less chance of irregular conduct service visits CST 4.179 times larger than the family income enough.

d. relationships of family knowledge to the regularity of service visits CST

Respondents who have a good knowledge of more regular visits CST services. More details can be seen in Table 5 below.

Table 5: relationships of family knowledge against the regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Knowledge	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	less	23	85,2	4	14,8	27	100
2	good	6	10,7	50	89,3	56	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,000; $RP = 7,951$; $CI95\%$ (3,673 – 17,210)							

Table 4 shows that of the 56 people with family incomes of less than 26 people (46.4%) did not regularly perform regular service visits CST and as many as 30 people (53.6%). While the 27 respondents with a family income quite as many as 13 people (11.1%) did not regularly perform regular service visits CST and as many as 24 people (60%). The test results on the value of chi square statistic significance of 95% = 0.05), was Obtained p-value of 0.004 or $p\alpha (<\alpha (0.05))$.

This means that there is a family Relationships between income with the regularity of service visits CST on TB-HIV co-infected Patients in TB DOTS Poli Jayapura General Hospital. When viewed from the $RP = 4,179$; $CI95\%$ (1 386 to 12 595) interpreted that respondents with a family income of less chance of irregular conduct service visits CST 4,179 times larger than the family income enough.

e. relationships of knowledge with the regularity of service visits CST

Respondents who have a good knowledge of more regular visits CST services. More details can be seen in Table 5 below.

f. Relations officer support to the regularity of service visits CST

Respondents who support health workers more regular visits CST services. More details can be seen in Table 6

below.

Table 5: relationship attitude with the regularity of service visits CST on TB-HIV co-infected Patients Poli DOTS TB Hospital in Jayapura

No	Attitude	Regularity of CST service visits				n	%
		Not regular		Regular			
		N	%	n	%		
1	Not support	18	60	12	40	30	100
2	Support	11	20,8	42	79,2	53	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,001; RP = 2,891; CI95% (1,584 – 5,277)							

Table 6: Relationship providers support the regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Provider support	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	Not support	16	48,5	17	51,5	33	100
2	Support	13	26	37	74	50	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,062; RP = 1,865; CI95% (1,039 – 3,348)							

Table 6 shows that of the 33 people with the support of health workers does not support as many as 16 people (48.5%) did not regularly perform regular service visits CST and as many as 17 people (51.5%). Meanwhile, of the 50 respondents with the support of health workers to support as many as 13 people (26%) did not regularly perform regular service visits CST and as many as 37 people (74%). The test results on the value of chi square statistic significance of 95% = 0.05) was obtained *p-value* of 0.062 or $p\alpha(> \alpha (0.05))$. This means that there is no regularity health to officer service visits CST on TB-HIV co-infected patients in TB DOTS Poli Jayapura General Hospital. When viewed from the RP = 1.865; CI95% (1.039 to 3.348) which interpreted that respondents who did not have the support of health workers potentially irregular visits CST service is 1.865 times greater than that received support from health workers.

g. Relationships between family support against the regularity of service visits CST Respondents who got family support more regular visits CST services. More details can be found in Table 7

below.

Table 7: Relationships between family support against the regularity of service visits CST on TB-HIV co-infected patients in Poli DOTS TB Hospital Jayapura

No	Family support	Regularity of CST service visits				n	%
		Not regular		Regular			
		n	%	n	%		
1	Not support	20	52,6	18	47,4	38	100
2	Support	9	20	36	80	45	100
Total		29	34,9	54	65,1	83	100
<i>p-value</i> = 0,004; RP = 2,632; CI95% (1,363 – 5,079)							

Table 7 shows that of the 38 people with the support of family does not support as many as 20 people (52.6%) did not regularly perform regular service visits CST and as many as 18 people (47.4%). While 45 respondents with the support of family support as many as 9 people (20%) did not regularly perform regular service visits CST and as many as 36 people (80%). The test results on the value of chi square statistic significance of 95% = 0.05) was obtained *p-value* of 0.004 or $p\alpha (<\alpha (0.05))$. This means that there is a family support the regularity of service visits CST on TB-HIV co-infected patients in TB DOTS Poli Jayapura General Hospital. When viewed from the RP = 2.632; CI95% (1.363 to 5.079) which interpreted that respondents who did not have the support of families potentially irregular visits CST services 2,632 times greater than those without the support of the family.

4. Discussion

1. Relationships between human the regularity of CST service visits

The result showed that that there is no regularity of service visits relationships between human to CST in patients co-infected with TB-HIV in TB DOTS Poli Jayapura General Hospital (*p-value* 0.154). The results are consistent with research, in West Nusa Tenggara revealed that there is no relationship of age to the compliance order on patient treatment of pulmonary tuberculosis. Age is human development in every change can be related to someone in the decision for his health. Upon entering adolescence, a person already has a logical decision-making capabilities that lead to health behaviors, but most of them are still considering the temptations and pressures of those around him. Whereas in adulthood, most people can define and practice their own behavior to protect, improve and maintain their health.

Age as one of the characteristic properties of the people are quite important because many diseases are found in a variety of frequency variations caused by age. Results of the analysis showed that most respondents in the age group <30 years as many as 50 people (60.2%). Of the 50 people aged <30 years as many as 21 people (42%)

did not regularly perform regular service visits CST and as many as 29 people (58%). While 33 respondents aged > 30 years as many as eight people (24.2%) did not regularly perform regular service visits CST and as many as 25 people (75.8%). This shows that the age group of the same respondents potentially irregular do CST visit services [13-15].

The results showed that the age of the youngest respondents aged 20 years and the highest 52-year-old. According to Hurlock (2009) Distribution of adulthood by developmental psychology is divided into ages of man, the early adulthood (ages 20-30 years), middle adulthood (ages 31-59 years) and late adulthood (60 years up to death), Assumptions researchers that determinant factor disobey of age is not a factor in the treatment of patients because of their age and the age of early adulthood have motivation to live a healthy life and care health. In addition, respondents who work is not too busy still be able to run the treatment, especially people who do not work. This suggests a stronger factor to a patient in conducting regularity of visits, especially for family support.

2. Relationship between sex against the order of service visits CST

The result showed that there was no relationship between sex with the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.483). The results are consistent with research Martoni [16] reveals that there is no correlation with gender ARV adherence consumption because only a slight difference between adherence men and women overall. Several studies have found that men and women are more or less having the same tendency to run their treatment program. These results are supported by research Ubra [17] in Mimika, Papua, with a value of $p = 0.6132$ and research at the Hospital Dr. M. Djamil Padang with $p = 0.950$. Results of the analysis showed that of the 43 sex male - female as many as 13 people (30.2%) did not regularly perform regular service visits CST and as many as 30 people (69.8%). While 40 respondents were female as many as 16 people (40%) did not regularly perform regular service visits CST and as many as 24 people (60%). This is the same tendency show relationship to regularity of visits CST services. Assumptions researchers found no relationship sex against regularity visit CST services due to the relationship of knowledge and attitudes of respondents in harnessing CST services. So it can be said that the absence of gender relations due to their knowledge factors of the patients co-infected with HIV TB on his health.

3. Relationship family income with the regularity of service visits CST

The result showed that there was a Relationship family income to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.004). These results are not in line with research conducted Kondoy [18], that the family income does not relate to compliance, pulmonary tuberculosis program is a free program of the government. Treatment costs are the costs incurred by a person to carry out the treatment of the disease. The ability for someone to put the cost of treatment varies. It can be correlated by economic income family's economic ability. If the family have sufficient economy then he can pay for medical expenses differ from economic circumstances families who lack these conditions will be related treatment program undertaken [19]. Results of the analysis showed that of the 56 people with family incomes of less than 26 people (46.4%) did not regularly perform regular service visits CST and as many as 30 people (53.6%).

While the 27 respondents with a family income quite as many as 13 people (11.1%) did not regularly perform regular service visits CST and as many as 24 people (60%). This indicates that respondents have a household income of less, higher proportion irregular conduct CST service visits. This is evidenced from the value of $RP = 4.179$; $CI95\%$ (1.386 to 12.595) interpreted that respondents with a family income of less chance of irregular conduct service visits CST 4.179 times larger than the family income enough.

Their relationship to the family income to the regularity visit CST services due to their family's income sufficient to support the patient to be treated as a means of transportation and other medical expenses. While respondents do not have a family income of less, so the cost of transportation and accommodation costs more severe perceived by the respondents. Although according to the Ministry of Health of Indonesia [3], ARV treatment is given free of charge.

This is in line with research Hamdi [20], which conducts research in Majalengka regency revealed that there was a significant relationship between the cost of transportation with pulmonary tuberculosis patient treatment compliance. Affordability is the patient's perception of the expensive or cheap costs incurred for transportation of patients to home health care.

4. Relationship of Knowledge with the regularity of CST service visits

The result showed that there relationship of Knowledge to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p -value 0.000). The results of this study are consistent with other research in patients at Lung health centers in Semarang revealed that there is a relationship of knowledge to the regularity of doing CST service visit. Knowledge is the result of the idea, and sensing occurs after the conduct of the particular object through the sense owned (eyes, nose, ears, and so on) and very correlated by the intensity of attention and perception of the object. Most of the knowledge gained through the senses of hearing (ears) and a sense of vision (eye). But knowledge can be gained through his own experience or the experience of others [11].

Results of the analysis showed that of the 27 people with less knowledge of as many as 23 people (85.2%) did not regularly perform regular service visits CST and as many as four people (14.8%). While the 56 respondents with a good knowledge of as many as six people (10.7%) did not regularly perform regular service visits CST and as many as 50 people (89.3%). This shows the proportion of the regularity of visits CST services to patients who have a good knowledge. This is evident from the results of the $RP = 7.951$; $CI95\%$ (3.673 to 17.210) interpreted that respondents with less knowledge potentially irregular visits CST services 7.951 times greater than with a good knowledge about the service CST.

These results were confirmed by the results of respondents who do not regularly visit the CST, one connected to the knowledge is still lacking for signs and symptoms of HIV / AIDS and tuberculosis, this is indicated respondents who know the signs and symptoms limited to coughing and weight loss do not know signs and symptoms completely, whereas other respondent not even know what the signs and symptoms of HIV / AIDS and tuberculosis treatment of TB in patients co-infected with TB-HIV must be given promptly while the

treatment was started after TB treatment can tolerance be given no earlier than 2 weeks and no later than 8 Sunday.

The relationship of knowledge to the regularity of service visits CST on TB-HIV co-infected patients in TB DOTS Poli Jayapura District Hospital due to respondents who know the benefits of CST regularity of visits to health services. The results in this study is in line with the theory of Lawrence Green mentioning that the factors that can facilitate (predisposing Factors) occurrence in a person's behavior one is knowledge. In addition, this study is also consistent with the theory Skinner called the theory of S-O-R (stimulus-organism-response) that knowledge is a domain that is very important in shaping the behavior of open (overt behavior) occurs when the response to a stimulus that is already in the form of action. A good knowledge about HIV / AIDS and the CST will encourage someone to behave in accessing services regularly CST and this practice can be observed people from the outside (observable behavior) [11].

5. Relationship of Attitude with the regularity of CST service visits.

Attitude is a reaction or response of someone who is still closed to a stimulus or object. Attitudes cannot be seen directly but can only be interpreted in advance of the behavior of the closed, clearly demonstrates the constancy of their conformity reaction to certain stimuli [11]. To attitude CST service here is how the attitude that is given responder to receive state services such as the CST itself and pain treatment. Results of the analysis showed that out of 30 people with an attitude does not support as many as 18 people (60%) did not regularly perform regular service visits CST and 12 people (40%). While 53 respondents with an attitude to support as many as 11 people (20.8%) did not regularly perform regular service visits CST and as many as 42 people (79.2%). $p = 0.05$ was obtained or $p < \alpha$. The test results on the value of chi square statistic significance of 95% ($< \alpha (0.05)$). It showed patients who regularly perform service visits CST in patients who have a supportive attitude. This is evidenced from the value of $RP = 2,891$; $CI_{95\%} (1.584 \text{ to } 5.277)$ which interpreted that respondents with no attitude to support potentially irregular visits CST services 2,891 times greater than the supportive stance of the CST services.

The test results are in line with Lawrence Green in his theory states that human behavior in relation to internal factors (one of which is an attitude) irregular behavior will be facilitated by the favorable attitudes toward regularity to access CST services. But the beliefs, traditions, value systems and in the local community are also factors that facilitate or complicate the supportive attitude. The attitude here may also occur due to factors including the availability of supporting facilities, the environment and the encouragement of family support. Can be possible not formed attitudes intact (total attitude) that includes (1) the trust (confidence), the idea and the concept of an object (2) emotional life or evaluation of an object, and (3) the tendency to act (growing niche to behave) is not met so that the attitude that appears inconsistent with the attitude of the original, or in other words patients confected with TB-HIV-behaved (regular or irregular visits CST services) does not match the attitude (or do not support) against the disease in the suffering . In reference [11]; the attitude towards the relationship of this research due to favorable attitudes toward regularity of visits CST due to services arising from the personal respondents each - each. Respondents who are open to health problems that are owned, thus receiving the care or treatment are needed for caring health.

6. Relationship of services access to the regularity of CST service visits

The results of the studies showed that there is a relationship CST services to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.010). Access to health services for people living with HIV is a basic right of every person which includes a comprehensive AIDS care and sustainable. The formulated comprehensive services include: 1) clinical management (prophylaxis, early diagnosis, rational treatment and management of opportunistic infections). 2) nursing care (hygiene and nutritional support). 3) Palliative Care. 4) home based care (including care by families and the environment, the application of universal precautions). 5) counseling and social support. 6) patient referral system. The results obtained from the analysis of 29 people with access to services difficult CST many as 16 people (55.2%) did not regularly perform regular service visits CST and as many as 13 people (44.8%). Meanwhile, out of 54 respondents to the CST easy service access as many as 13 people (24.1%) did not regularly perform regular service visits CST and as many as 41 people (75.8%). The test results on the value of chi square statistic significance of 95% ($\alpha = 0.05$) was obtained p-value of 0.010 or $p < \alpha$ (0.05). It shows their regular proportions in patients with easy access to services CST. This is evidenced from the results of the $RP = 2,292$; $CI_{95\%}$ (1.288 to 4.078) which interpreted that respondents with access to services difficult CST potentially irregular visits CST services 2,292 times greater than the CST easy service access.

These results are consistent with the theory of Lawrence Green stated that the behavior in relation to factors supporting (enabling factors) are the amenities, facilities or infrastructure that support facilities occurrence of a person's behavior that makes regular [11]. Assumptions research that ease of access to services such as the availability of facilities and services such as laboratory tests and drug availability, distance from the house to the place of service, and transportation costs are factors that significantly related to the regularity of visits in accessing services CST due to the respondents respond no trouble pushing interest patients in the repeated visits.

6. Relationships between officer support to the regularity of service visits CST

The result showed that there was no Relationships between officer supports to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.062). The results of this study are not consistent with other research done by Risha [21] which states that support health workers there is a relationship with the regularity of a patient undergoing treatment or in other words the support of health workers related to regularity of service visits CST. the role of health workers have an important role in healing and regularity of treatment the patient lived [5], because the clerk is managing patients with the most frequently interact so that an understanding of the physical condition and psychological better. The intensity of interaction is closely related trust and accepts the presence of the officer. If the trust and accept the presence of health workers can be grown in the patient, then the advice and commands given officers will be accepted by the patient with the good, so is the motivation or the support given by the clerk of great importance to adherence of patients to control the illness.

Although statistically that support officers are not related to regularity visit CST service, but from the analysis

results obtained from 33 people with the support of health workers does not support as many as 16 people (48.5%) did not regularly perform regular service visits CST and as many as 17 people (51.5%). Meanwhile, of the 50 respondents with the support of health workers to support as many as 13 people (26%) do not regularly visit CST services and organized as many as 37 people (74%). This suggests that health care workers who provide support, patient and more regular visits CST services. It is proved from the $RP = 1.865$; $CI95\%$ (1.039 to 3.348) which interpreted that respondents who did not have the support of health workers potentially irregular visits CST service is 1.865 times greater than that received support from health workers.

This is also consistent with research Yuniar [22], states the research results most respondents acknowledged the good relationship with the service provider health workers even though there are some who declare their health workers less friendly or fierce. A good relationship with the health workers, the attitude and behavior of health personnel were friendly and full of a sense of kinship with adherence counseling can provide a sense of comfort for people living with HIV. It is indirectly making people living with HIV are more motivated for regular medical treatment. The analysis conducted by Snehandu B. Kar produce a theory that social support (social support) is one part of the behavior [11]. The theory has been implemented government through the PITC (Provider Initiated HIV Testing And Counseling) supported with the formation mechanism of collaborative TB-HIV where on patient special as patients co-infected with TB-HIV need strong support of health workers include psychological support, psychosocial and biological [5].

7. The relationship of family support services to the regularity of CST visits service

Results indicated that there is a family support to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p -value 0.004). The research result is in line with research conducted by Ubra [17] revealed that family support related to ARV treatment caused by the assistance given to other family members in the form of goods, services, information and advice. While research Safira [23], in Voluntary Counseling and Testing (VCT) Dr H. Adam Malik Medan in 2014 revealed that family support is not related to compliance taking Antiretroviral Drugs (ARVs).

Families can be a factor that is highly correlated to determine the treatment and care of sick family members as well as being PMO (supervisor taking medication). Direct supervision is realized by the PMO so that the regularity of the treatment patients are also controlled. Several conditions must be between the PMO is someone who lives close to the patient and someone known, trusted and respected. Results of the analysis showed that of the 38 people with the support of family does not support as many as 20 people (52.6%) did not regularly perform regular service visits CST and as many as 18 people (47.4%). While 45 respondents with the support of family support as many as 9 people (20%) did not regularly perform regular service visits CST and as many as 36 people (80%). This indicates regularity higher in respondents who have received family support. The results of the $RP = 2.632$; $CI95\%$ (1.363 to 5.079) which interpreted that respondents who did not have the support of families potentially irregular visits CST services 2,632 times greater than those without the support of the family.

Family support is included in social support, According to MoH RI [11] distinguishes four types of support that

emotional support, award, instruments and information. Family support will provide all the patient needs, so that all his needs are met patient information through physical needs, as well as emotional support and appreciation given families can raise the spirit of respondents. While this research also respondents who received support but not adherent patients due to their attitude factor and ease of servicing the CST in pulmonary TB Hospital Jayapura.

5. Conclusion

Based on the results of research and discussion can be summed up as follows:

1. No relation human to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.154; RP = 1.733; CI95% = 0.873 to 3.439).
2. There is no relationship between sex with the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.483; RP = 10.756; CI95% = 0.418 to 1.366).
3. There is a relationships between family income to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.004; RP = 4.179; CI95% = 1.386 to 12.595).
4. There relationships between knowledge with the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.000; RP = 7.951; CI95% = 3.673 to 17.210).
5. There is relationships between attitude with the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.001; RP = 2,891; CI95% = 1.584 to 5.277).
6. There is relationships between regularly CST services to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.010; RP = 2,292; CI95% = 1.288 to 4.078).
7. No relationships between health workers support to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.062; RP = 1.865; CI95% (1.039 to 3.348)
8. There is a relationships between family support to the regularity of service visits CST on TB-HIV co-infected patients in hospitals Jayapura Poli DOTS TB (p-value 0.004; RP = 2.632; CI95% = 1.363 to 5.079).

References

- [1] Butt, L., stigma dan HIV/AIDS di Wilayah Pegunungan Papua. 2010, Canada: Pusat Studi Kependudukan; Kerjasama Universitas Cenderawasih Jayapura & University of Victoria.

- [2] Kemenkes RI, 2015. Infodatin HIV/AIDS. Kemenkes RI, Jakarta.
- [3] Kemenkes RI, 2014, Statistika Kasus HIV/AIDS di Indonesia Tahun 2014, Jakarta, Kemenkes RI.
- [4] Kemenkes RI, 2013. Pedoman Nasional Tes Dan Konseling Hiv Dan Aids. Kemenkes RI, Jakarta.
- [5] Kemenkes RI, 2012. Pedoman Nasional Pencegahan Penularan Hiv Dari Ibu Ke Anak (PPIA). Kemenkes RI, Jakarta.
- [6] Data Rekam Medik RSUD Jayapura tahun 2016
- [7] Dinas Kesehatan Provinsi Papua, 2015. Profil Kesehatan Provinsi Papua.
- [8] Depkes RI. 2008. Kolaborasi TB-HIV. Jakarta: Depkes RI.
- [9] Depkes RI, 2009. Kebijakan Dalam Penanggulangan IMS, HIV dan AIDS. Depkes RI, Jakarta.
- [10] Rahmatin E, 2015. Faktor-Faktor Yang Berhubungan Dengan Keteraturan Kunjungan Layanan Care Support And Treatment (Cst) Pada Pasien Koinfeksi Tb-Hiv Di Balai Kesehatan Paru Masyarakat Wilayah Semarang. <http://www.unnes.co.id>. Diakses 20 November 2016.
- [11] Notoarmodjo. 2012. Metode Penelitian Kesehatan. Penerbit PT. Rineka Cipta. Jakarta.
- [12] Syahrizal. Analisis Kepatuhan penderita TBC Paru BTA Positif dalam Menelan Obat di RS Khusus Paru-Paru Propinsi Sumatra Selatan tahun 2002. Jakarta : Program Pasca UI. 2004.
- [13] Kemenkes RI, 2011. Pedoman Nasional Tatalaksana Klinis Infeksi HIV dan Terapi Antiretroviral Pada Orang Dewasa, Kementerian Kesehatan RI, Jakarta. 101 Ditjen P2PL
- [14] Kementerian Kesehatan R.I. 2012. Modul Manajemen Layanan komprehensif HIV-AIDS Berkesinambungan. Jakarta.
- [15] Hasmi, 2012, Metode Penelitian Epidemiologi, Jakarta : Trans Info Media.
- [16] Martoni, Wildra., Arifin, Helmi., Dan Raveinal. 2012. Faktor - Faktor Yang Berhubungan Kepatuhan Pasien Hiv/Aids Di Poliklinik Khusus Rawat Jalan Bagian Penyakit Dalam Rsup Dr. M. Djamil Padang Periode Desember 2011- Maret 2012. Jurnal Farmasi Andalas Vol 1 (1) April 2013
- [17] Ubra, R.R., Faktor - Faktor yang Berhubungan dengan Kepatuhan Pengobatan Minum ARV Pada Pasien di Kabupaten Mimika Propinsi Papua, in Magister Epidemiologi. 2012, Universitas Indonesia: Depok
- [18] Kondoy Priska P. H, 2014. Faktor-Faktor Yang Berhubungan Dengan Kepatuhan Berobat

Pasien Tuberkulosis Paru di Lima Puskesmas di Kota Manado. <http://www.unsrat.co.id>. Diakses 10 November 2016.

- [19] Nursalam M dan Kurniawati N.D, 2009. Asuhan Keperawatan Paada Pasien Terinfeksi. Jakarta: Salemba Medika.
- [20] Hamdi, 2000. Faktor-Faktor yang Berhubungan dengan Perilaku Kepatuhan berobat Penderita TB Paru pada Fase Intensif di Kabupaten Majalengka tahun 1997-2000. Jakarta : Tesis FKM UI. http://www.fkm_ui.co.id. Diakses 20 November 2016.
- [21] Risha F. F, 2011, Faktor-Faktor yang Mempengaruhi Tingkat Kepatuhan Pengobatan ARV (Anti Retro Viral) pada ODHA (Orang Dengan Hiv/Aids) di Rumah Sakit Umum Daerah Tugurejo dan Rumah Sakit Umum Panti Wilasa Citarum Semarang, Universitas Gajah Mada, Jurnal Manajemen dan Pelayanan Farmasi, Volume 1 Nomer 2, Juni 2011 Hal. 126-137.
- [22] Yuniar Yuyun, dkk, 2012, Faktor-Faktor Pendukung Kepatuhan Orang Dengan IV AIDS (ODHA) Dalam Minum Obat Antiretroviral Di Kota Bandung dan Cimahi, Bul. Penelitian Kesehatan, Vol. 41, No. 2 Hal. 72-83.
- [23] Safira N, 2014. Faktor-Faktor Yang Berhubungan Dengan Kepatuhan Penderita Hiv/Aids Mengonsumsi Obat Antiretroviral (arv) diklinik Voluntary Counseling And Testing (VCT) RSUP h. Adammalik medan tahun 2014. <http://www.usu.co.id>. Diakses 10 November 2016.