Effect of Locus of Control and Peer Support the Risk of Depression on People Living with HIV / AIDS in KDS Friendship Plus Kediri City

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\textbf{ABSTRACT}

\textbf{Background:} the incidence of HIV / AIDS tends to increase with high mortality rates, the epidemic is now sweeping across the country and at all levels of the population, social problems will be more aggravate psychological conditions of ODHA in stress and depression. The objective of this research was to analyze the influence of locus of control and peer support against the risk of depression in KDS Friendship plus Kediri.

\textbf{Subject and Method:} type of research was an analytic observational with approach of cross sectional. This research was conducted on 23-24 April 2016. Intake of sample was conducted by technique of simple random sampling amounted to 45 subjects of research. The technique of data collection used questionnaires, analysis used multiple linear regression.

\textbf{Result:} the influence of locus of control, \( p = 0.001 \) (29.8\%). The influence of peer support \( p = 0.001 \) (52\%). The influence of locus of control and peer support \( p = 0.001 \) (<0.005), 54\% the risk of depression in people living with HIV is influenced by factors locus of control and peer support, value of the regression coefficient (b) locus of control \(-0.79\) and value of the regression coefficient (b) peer support \(-1.07\) (LoC \( b = -0.31; \ CI 95\% = -0.674 s / d -0.42; p = 0.001\); peer support b = -0.89; 95\% CI = -1.26 s / d -0.53, \( p = 0.001\))

\textbf{Conclusion:} there is an influence of locus of control and peer support against the risk of depression in ODHA.

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\section*{I. INTRODUCTION}

HIV virus is the deadliest cause of disease throughout the history of human civilization, the disease known as AIDS that can be contagious and deadly (Bare & Smelzer 2005 in Kusuma, 2011). World Health Organization (WHO), declared that HIV / AIDS as the deadliest epidemic and an infectious disease is a global public health problem and spread almost all countries in the world, including Indonesia. These problems include HIV / AIDS and TB incidence which tends to increase from year to year with high mortality. In addition to the increased mortality rate, the current epidemic of HIV / AIDS has swept across the country and on all population levels. According to The World Bank latest data, it is estimated that by 2013 there will be 35 million people living with HIV; 2.1 million people had been infected with HIV that year, and 1.5 million died of HIV-related illness (WHO, 2014). Case Fatality Rate (CFR) decreased from 3.79\% in 2012 to 0.46\% in September 2014 (DG of DC & EH, Health Ministry, 2014). Meanwhile, according to Kediri District Health Office in 2014 it was recorded as many as 615 people with HIV / AIDS, 183 people died or about 30\%.

On the other hand, HIV / AIDS disease can cause depression for the sufferers. It is Estimated that 5-10\% per year and life time prevalence in the world can reach 2x as much. Depression prevalence in
Indonesia is quite high, around 17-27%. Approximately 5-10% of the general population is depressed. However, depression in people living with HIV can reach 60%. HIV-infected women are twice as likely to be depressed than men (Spiritia Foundation, 2014). Olagunju (2012) high burden of anxiety disorders among PLWHA five times higher than the general population.

Depression causes include the events in daily life, chemical changes in the brain, drug side effects, some physical illness (Spiritia Foundation, 2014). The onset of depression is also caused by the illness suffered and is a class of diseases that have not found the drug so it will risk to the death such as HIV / AIDS. Suryadi (2007 in Muslimah & Aliyah, 2013) expressed a patient diagnosed as positive HIV / AIDS, her mental condition will experience phase of SABDA (Shock, Anger, Bargain, Depressed, Acceptance). Social problems are quite alarming as the impact of stigma on HIV / AIDS. For the population at risk of HIV / AIDS, it will further aggravate their psychological condition when they receive a HIV / AIDS verdict. (Fernandez & Ruiz, 2006 in Reini Astuti, 2015).

According to Katzentein (1998) anxiety and depression became one of the causes of suicide and resulted in an increase in suicide rates. It is estimated that 5% to 15% of depressed people commit suicide annually (Hawari, 2006). Depression that is not addressed properly can decrease the immune system of HIV sufferers (Nursalam & Kurniawati, 2011; Alemu et al, 2011, in Astuti R, 2015). The state of depression may decrease immune function, cell function "natural killer" and lymphocyte reaction thus contributing to the acceleration of CD-4 cell count decrease so that there is higher infection possibility (Burack, Barrett, & Stall, 1993 in Astuti, 2015). Depression and suicidal thoughts often coincide with HIV / AIDS, triggering major adverse effects on life quality, medication adherence, disease, and death (Rachel MA et al., 2014). Exploratory study on suicide in HIV mental health clinics also mentions that 60% of patients have suicidal thoughts within 30 days of admission, 49% have suicidal plans, and 48% say that there is a moderate or high probability of them taking action (Heller & Miles, 2003). Control is an important and long-term program coordinated by involving various parties. The community sector is the decisive factor in accelerating the attainment of three new zeroes, zero AIDS-related deaths and zero stigma and discrimination. This awareness in institution background in global health initiatives develops community empowerment activities, consisting of Strategic Investment Framework (SIF), Community System Strengthening (CSS), Expanded Readiness Assessment (ERA), Organizational Performance (OP) and Technical Capacity (TC), Institutional Development Framework (IDF), Discussion - Oriented Organizational Self-Assessment (DOSA), Organizational Capacity Assessment Tool (OCAT). Providing support through social networks and family and peer support should be encouraged. The Government has also encouraged to increase family and community responsibilities to people living with HIV and AIDS (Center for Policy and Medical Management of Faculty of Medicine UGM, 2015). Based on the above description, the studyers are encouraged to conduct study by formulating in the title: "The Influence of Locus Of Control and Peer Support Against Depression Risk in People with HIV / AIDS in KDS Friendship Plus Kediri".

II. SUBJECT AND METHODS

The type of study used was observational analytic study with cross sectional approach which the independent variables (LoC and peer support) and dependent variable (depression risk in people living with HIV) were measured by taking into the number of cases in advance and compared with control (healthy people).

The study was conducted in KDS Friendship plus Kota Kediri. During the two-day study period was conducted on April 23 -24, 2016, the sample in this study were some people with HIV / AIDS (PLWHA) at KDS Friendship Plus Kota Kediri. The sample size is estimated according to the data analysis design to be performed, a multivariate analysis involving 3 independent variables. In the multivariate analysis model, it takes 15-20 study subjects per an independent variable. So, in this
study minimum required $3 \times (15$ to $20$ subjects) $= 45$ to $60$ subjects (Murti, 2013). Sampling was done by simple random sampling technique, Kothari, 1990 in Murti (2013). Inclusion criteria include: (a) PLWHA, (b) Willing to be a respondent by signing informed consent, (c) Joining KDS Friendship Plus group Kediri, (d) Following the meeting held by KDS Friendship Plus committee of Kediri in April 2016.

Univariate data processing, bivariate to know the relationship between variables using one-way anova and multi variable analysis with multiple linear regression analysis with LoC variable, peer support and risk of depression.

Diagram 5.1 Diagram Scatter of LoC Effect Against Depression Risk in PLWHA in KDS Friendship Plus Kota Kediri East Java

Diagram 5.2 Diagram Effect of Scatter Peer Support against Depression Risks in PLHIV At KDS Friendship Plus Kota Kediri East Java
III. RESULTS

Characteristics of study subjects were by age, education, occupation, risk factors, marital status, and gender. Respondent majority were 35 respondents (56.6%), almost all of them had low educational background of 27 respondents (82.2%), almost half of the respondents had a job as female workers (WPS) as many as 14 respondents (31.1%), most of the respondents had HIV / AIDS risk factor (WPS) as many as 28 respondents (62.2%), almost half of respondents had widow status, 17 respondents (48%), and almost all female respondents were 36 respondents (80%) from a total of 45 respondents.

Normality test used Kolmogorov-smirnov method and the results for all variable are normal and the linearity test results for all variables are linear. Multivariate influence explains the effect of more than one independent variable locus of control, peer support to the dependent variable of depression risk in ODHA.

IV. DISCUSSION

The effect of LoC on depression risk in ODHA is the higher LoC score then the lower depression risk (p = 0.001). Determination coefficient of $r^2$ Linear (R²) 0.29 means 29.8% depression risk in ODHA influenced by peer support while the rest is 70.2% because other factors that can not be explained in regression equation. Regression coefficient (b) is -0.79 (negative value) meaning without any addition of LoC score hence giving possible depression risk decrease equal to 0.79 times or in equation $y = 1.04E2 + -0.79 * x$. While table 5.7 multivariate analysis value p = 0.001, this means there is a significant influence between LoC and depression risk in ODHA.

LoC according to Rotter (in Suwarsi & Budianti, 2009) is a matter that certainly contributes to one's quality which is initial response as basis of the next response. LoC is person's attitude in interpreting cause of an event. LoC is one of the personality variables defined as individual beliefs about the ability to control destiny itself. LoC includes internal and external LoC. Someone with an internal LoC is the one who feels responsible for a particular event. The result is a direct impact of his actions. While people with external LoC are those who often blame for luck, disaster, fate, the state of himself or other forces beyond his power (Brotosumarto, 2010). Individuals who have confidence that fate in their lives under his control said to be individuals who have an internal LoC. Meanwhile, individuals who have the belief that the environment has control over the fate of their lives said to be an individual who has an external LoC (Brotosumarto, 2010).

Study conducted by Qiao S et al. (2012) said that a good internal LoC in children will encourage them to be open to others about their status and their family's relation to stress, stigma and depression. Locus internally decreases depression and improves mental health quality especially in rural uganda (Tsai et al., 2013). External LC in adolescence is one of the mediating factors of relationship between early difficulties and depression at 18 years. Cognitive interventions that seek to alter the beliefs of maladaptive control in adolescence may be effective in reducing depression risk after initial difficulty of breathing (Culpin et al., 2015).
Analysis results showed that there was an influence of LoC to depression risk in ODHA. When a person is affected by a disaster (including currently suffering from HIV / AIDS), then all of those are considered to lead to the belief that there is a result consequence of self-act. Individuals believe that good results obtained and failures obtained are the result of his own behavior, so he believes that those who control the success or failure of a goal are themselves. It may be that depression effect comes from the thought that this pain is his own (internal LOC), or he can blame the environment (friends, girlfriend, wife, husband or someone else) or outside him (external LOC). Whatever of thinking pattern develops, they generally know and realize that there is no hope of recovery from their illness. Of course, such conditions will affect his psychological condition so that it will be more trigger of depression emergence.

Peer support effect to depression risk in people living with HIV is the higher the peer support score, the lower depression risk (p = 0.001) will be. Determination coefficient of $r^2$ Linear (R2) 0.52 means 52% risk of depression in ODHA influenced by peer support while the remaining 48% due to other factors can not be explained in regression equation. The regression coefficient (b) is - 1.07 (negative value) meaning without any increase in peer support score then it gives a probability of decreasing depression risk by 1.07 times or in the equation $y = 1.09E2 + -1.07 * x$. While table 5.7 multivariate analysis value $p = 0.001$, this means there is a significant influence between peer support and depression risk in ODHA.

KDS is a group of two or more people who are infected or directly affected by HIV get together and support each other. KDS members are people living with HIV / AIDS (ODHA) and people living with PLHIV (OHIDHA), or a combination of PLHIV and OHIDHA. Initially a combination of PLWHA with different backgrounds and the need to create is more specific groups, such as special groups of people living with HIV, or with certain backgrounds (Transsexual, IDU, Women, etc.), or a combination of PLHIV and OHIDHA. KP has the role to coordinate, accommodate the aspirations and needs of the KDS-KDS served, foster critical awareness, nurture, and guide KDS-KDS by upholding equality value and as advocates by involving peer groups in the process. The KP functions is to prevent / anticipate conflict occurrence between peer support groups, provide support to peer support groups, provide opportunities for peer support groups to grow together, ensure the use of funds provided by KP for proper use, and become a container and channel of information for all KDS served (Yayasan Spiritia, 2011).

Study results of Yuniar (2013) concluded that Peer Support Groups were external factors that influenced antiretroviral therapy adherence. While Alfiiyatur Rohmah (2012) concluded that KDS has task to provide motivation and accompany people living with HIV. The duties of buddy or peer support group as PLHIV are to inform in depth about HIV / AIDS disease (Spiritia Foundation, 2011).

Peer support improves psychosocial functioning much better about uncertainty of illness, depression and satisfaction with social support in newly diagnosed HIV control groups (Brashers DE et al.2015)

Analysis results show that there is a significant influence, peer support to PLHIV. This is because the NGO is indeed the only way to distribute heart, emotional outpouring and psychological burden that has been unable to be implemented or disclosed by patient to anyone including family members. In Kediri and its surrounding, conditions of HIV / AIDS patients are well aware that this group has the same fate, both face the same risk of morbidity and mortality, and they know that they suffer from HIV / AIDS, so if this group does not give each other support, what happens is that the patient feels there is no other place that can be used to vent his emotional, there is no place to ask for support from his illness, no one else is expected to provide moral assistance and various other psychological feelings.

On the other hand, if this group is able to perform its function properly then the patient feels there are people who care about him, there is a hope to pour out the hearts and feelings, there is still hope that will provide help and attention. Humans have a psychological and physiological side. This psychological need is very important for people with HIV / AIDS. If peer support is not working properly then the patient feels no hope anymore, it will further add to psychological burden so it will trigger the depression feelings.

The multivariate analysis known Adjusted $R^2 = 54\%$ means that overall LoC and peer support variables have an effect on depression risk by 54% regression coefficient (b) LoC and peer
support is 122.32 (positive value) meaning without any addition of LoC score and peer support then providing a possible depression risk reduction of 122.32 times. Value p = 0.001 means that there is a significant influence between LoC and peer support against depression risk in people living with HIV (LoC b = -0.31, 95% CI = -0.674 s / d -0.42; p = 0.001; peer support b = - 0.89; 95% CI = - 1.26 s / d -0.53, p = 0.001).

Study conducted by Wahyu et al. (2012) also suggests a self-concept picture in people with HIV / AIDS as a whole is in less category or even very less. One of the causes of this lack of self-concept is negative attitude of society. HIV sufferers have generally tried to improve themselves by being good in their community, but negative attitudes and community attitudes seem to have cornered them so greatly affect their self-concept (Murni et al., 2003).

Peer support effectiveness is believed to be derived from various psychosocial processes as described by Salzer in 2002, ie social support, experiential knowledge, social learning theory, social comparison theory, and help principle as part of therapy (Spiritia Foundation, 2011). There is an inverted (negative) influence between the locus of control and peer support for depression risk (Susanti E, 2016).

LoC and peer support are needed in lowering depression level of people living with HIV, so that medication and social life will work properly without disease burden. In this case, peer support role is to improve self-control to achieve a better quality of life for PLWHA and OHIDHA. They realize that there is no cure yet but only inhibits virus development, it takes them a lifetime to take ARV drugs and of course arise boredom, despair and compliance will decrease. The role of family, community and health personnel should be involved to always encourage follow-up of health personnel on disease treatment so life quality of PLHA is maintained.

This study has limitations on the sample used in this study which is still limited, those in peer Friendship plus. While people living with HIV who are not involved in peer Friendship Plus are not involved so study results may be different when compared to other KDS areas that exist in Kediri and in other regions in Indonesia. The study sample was determined by KDS friendship plus, so it was less diverse for data dissemination. Respondent’s lack of openness in filling questionnaires and feelings of shame and ignorance of respondents about the questions written on the questionnaire makes study less than the maximum result.

Several questionnaires used in this study were questionnaires modified by researchers from original questionnaire (peer support questionnaire) while LoC variable questionnaire and depression were patented by using a LoC questionnaire and Hammilton Rating Scale for depression. Therefore, this questionnaire has not been standardized and needs to be re-examined for validity and reliability to be used for further study.

V. REFERENCES


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