

## Relationship Between Support And Motivation With Adherence To Antiretroviral (ARV) Use In Preventing Mother-To-Child Transmission Of HIV (PPIA) : Literature Review

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### ABSTRACT

The rate of HIV transmission from mother to baby is still very high in the world, even in Indonesia. Antiretroviral (ARV) use is the most effective treatment for preventing HIV transmission from mother to baby. However, there are many factors that make pregnant women disobedient in treatment, one of the factors is the lack of support and motivation. The method used in this study was a literature study to find out whether support and motivation had a major impact on maternal adherence in taking ARVs. The results obtained were that motivation and support from the family, especially the husband, greatly influenced the mother's adherence to using ARVs, so that support and motivation played a very important role in preventing HIV transmission from mother to child (PPIA).

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## 1. INTRODUCTION

Acquired Immune Deficiency Syndrome or what we usually call AIDS is a collection of symptoms of a disease caused by the Human Immunodeficiency Virus (HIV). HIV is an RNA retrovirus that can cause clinical disease that impairs the immune system. The main basis for HIV infection is the reduction in the type of helper T lymphocytes that contain CD4 markers (T4 cells). HIV infects the body with a long incubation period (clinical incubation period), mainly causing signs and symptoms of AIDS.

In 2015, according to the World Health Organization (WHO) antiretrovirals had been used in 46% of HIV patients in various countries. The use of these ARVs has succeeded in reducing the number of deaths related to HIV/AIDS from 1.5 million in 2010 to 1.1 million in 2015. ARV drugs have been provided free of charge through the Indonesian government program since 2014 and are now available in more than 400 health services throughout Indonesia. Antiretrovirals apart from being antivirals are also useful for preventing HIV transmission to sexual partners, as well as HIV transmission from mother to child.

HIV and AIDS are known to be the main causes of maternal death worldwide, including in Indonesia. Indonesia is one of the Asian countries at risk of HIV infection due to the impact of economic and social changes. The largest numbers were found in the sex worker customer sub-population of more than 3.1 million people and more than 1.9 million for their partners. The risk of HIV transmission can be transmitted to partners or wives and even children. Based on mathematical modeling estimates that between 2008 and 2015, a total of 44,180 children will be born to HIV-positive mothers.

Transmission from mother to child is the main source of HIV infection in children. Pregnant women with HIV can also increase the risk of complications during pregnancy. The impact of HIV and AIDS on mothers and babies is to cause morbidity and death in pregnancy, in pregnant women, in childbirth and newborns. Then, more than 90% of babies get HIV from HIV-positive mothers. Transmission can occur during pregnancy, childbirth and breastfeeding. Giving ARVs to pregnant women who are infected and have caesarean sections is very effective in suppressing HIV transmission

from mother to child, and will reduce the risk of transmission to the baby through blood from the placenta and umbilical cord. ARV treatment should be prioritized for HIV-infected pregnant women to prevent their babies from contracting HIV. Children with HIV can experience developmental delays, poor health, and malnutrition. Programs for Prevention and Transmission of HIV from Mother to Child (PPIA) that are implemented effectively can reduce mortality and PPIA in pregnant women is an essential activity in antenatal care, so integration will be more effective in increasing the reach of pregnant women to screen for HIV with the aim of preventing transmission. vertically from mother to child.

The AIDS prevention program in Indonesia has 3 pillars, all of which lead to the paradigm of Zero new infection, Zero AIDS-related death and Zero discrimination, one of which is care, support and treatment (PDP); which includes strengthening and developing health services, prevention and treatment of opportunistic infections, antiretroviral treatment and support as well as education and training for ODHA.

An important factor that must be considered is the compliance of pregnant women. Compliance should always be monitored and evaluated regularly at every visit. The right diagnosis, the selection of the right drug and the right drug administration by medical personnel are not enough to guarantee the success of a therapy if the pregnant woman does not comply with the treatment. The causes of non-adherence to taking ARV medication are pregnant women feeling healthy so they stop taking medication, forget to take ARV medication, side effects experienced by pregnant women after taking ARV medication, and the distance from their home to the hospital is quite far. In order for therapy failure to occur, motivation is needed to continue undergoing ARV therapy, without motivation ARV therapy cannot be continued.

Several reasons why a mother needs support include that receiving support is a human need. The family is a buffer whose support functions throughout time, increasing the capacity and potential of family members. Of course happy and more excited if there are supporters. Support from the immediate family of pregnant women with HIV/AIDS creates self-confidence and encourages motivation to continue living. Family support to help pregnant women who are HIV/AIDS positive includes: choosing treatment, reminding them to take medication, providing necessary care to pregnant women, and helping pregnant women break the negative stigma in society. Family support has various forms of support including: emotional support, instrumental support, appreciation support, information support, concrete support, and evaluation support

## 2. METHOD

This research method is a literature review system. Literature review is a description of theories, findings and other research materials obtained from reference materials to be used as the basis for a study. The search for reference literature uses academic databases, namely Google Scholar, and Research Gate. Search articles using the keywords "Motivational Support", "Pregnant Women", "Antiretroviral (ARV)", and other keywords that are still related to Motivational Support for HIV/AIDS Positive Pregnant Women. The article literature included in the research sample is within the last 10 years (2013-2022). Based on the article search, many articles were found which could be said to be sufficient to support this research.

## 3. RESULTS AND DISCUSSION

Patients with HIV/AIDS require antiretroviral (ARV) treatment to reduce the amount of HIV in the body, so that they do not enter the AIDS stage and to prevent opportunistic infections and complications. Until now, antiretroviral drugs (ARVs) are still the most effective and able to reduce mortality and improve the quality of life for mothers and babies.

Prevention of HIV transmission from mother to child (PPIA) through interventions to minimize risk factors is known to reduce the risk of transmission to less than 2% of the total risk of transmission of 25-45% without intervention. These interventions are in the form of preventive measures by administering antiretroviral drugs (ARV) to mothers during the perinatal period, caesarean deliveries, and avoiding breastfeeding to HIV-positive mothers.

Then the low PPIA is caused by a lack of education to women of childbearing age and pregnant women about the importance of giving ARVs during pregnancy. Likewise the families of pregnant women who do not provide enough support. Family support, especially the husband is very important for the success of PPIA, where HIV transmission to infants can be prevented. The comparison between positive pregnant women who received family support and positive pregnant women who did not get support was very different, where mothers who received support from their families and husbands were more optimistic about the birth of their babies.

Patient non-adherence in ARV therapy can have a huge negative impact, because the incidence of HIV/AIDS reached 54% of all disease cases in 2001. It is even estimated that by 2020 this figure will exceed 65%. Many studies show that missing one or two doses of ARV drugs per week can have a big impact on HIV/AIDS treatment.

Based on the research conducted by Anasari et al (2018), there were 24 pregnant women with HIV who used ARVs and received family support (68.6%) more than those who did not receive family support, namely 11 people (31.4%). The family is the smallest unit in society and plays a role in determining the way of care needed for sick family members. Empirically it can be said that the health of family members and family quality of life have a strong or significant correlation. Family support is very necessary in the healing process of sick family members, good family support will improve the health of its members. The results of this study indicate that most of the respondents received family support. Good family support is caused by several factors, including the economy and family knowledge about the importance of pregnant women's compliance in taking ARVs. The division of the family social support function is the function of instrumental support, in which the family is a source of practical and concrete assistance. If a family member is sick, the family must provide assistance. Therefore, people with HIV need family assistance. In this case, the family can support the patient with the right information. And the last is emotional support, the family is a safe place to help control emotions for rest and recovery. Based on data in the research, pregnant women with HIV/AIDS who did not receive family support were mostly disobedient in taking ARVs as many as 8 people (72.7%) while pregnant women with HIV who received family support were mostly compliant in taking ARVs as many as 18 people (75 %). The results of the chi-square analysis obtained p value = 0.011, which means that there is a significant relationship between family support and adherence of pregnant women with HIV to take ARVs. These data show that family support is highly correlated and dominant with adherence to ARV use. Mothers who receive family support are more obedient than those who do not receive support from their families. There are several ways to increase adherence, including the support of family, friends and people around them to always remind the mother to take her medicine regularly so that the treatment is successful. Compliance will increase when patients receive help from their families. Furthermore, patients who do not have a family or who have a family or have a nonsupportive/nonavailable/ conflicted family will result in premature discontinuation of treatment and unsatisfactory outcomes.

Based on the research by Jaemi et al (2020), the results of statistical tests using the chi-square test obtained a value of  $p = 0.001$ , which means it is smaller than  $I (0.05)$ . Thus the research hypothesis is declared accepted. This means that there is a motivational effect on adherence to taking ARV medication. Based on the results of research that has been done, low motivation affects poor adherence to taking ARVs, so HIV patients need counseling about the importance of adherence to taking medication or motivation from those closest to them to increase adherence to taking ARVs. Motivation is driving behavior toward a goal based on needs that may arise within the individual, or may be obtained from outside and from other people/family. Aspects of motivation include a positive attitude, oriented towards achieving a goal and the strength that drives the patient. Motivation is very necessary in implementing ARV therapy compliance.

Based on the research by Septiani et al (2019), the results of this study show that there are more respondents with good family support than respondents with less family support. Family support provides a sense of comfort, a feeling of being loved, assistance in the form of enthusiasm, empathy, trust, attention so that those who receive it feel valuable. The results of this study strongly support the impact on adherence to ARV treatment.

Based on the research by Larasty et al., (2015) it was found that the form of family support for HIV positive mothers in ARV therapy adherence has a very large role, providing support to mothers in the form of reminding them to take medication, taking them to VCT & CST clinics and providing financial support. Where this support reduces stress and anxiety in HIV positive pregnant women, and makes mothers more obedient in taking ARVs. Mother's adherence to ARV therapy is increasing from time to time with family and social support so that awareness is raised in mothers.

Based on research by Putri et al., (2018), the results of a qualitative analysis of pregnant women's adherence to PMTCT. Three themes were found in this study, namely 1) the adequacy of knowledge building information, 2) sources of support for PMTCT continuity, 3) internalization of adherence to PMTCT. Internal and external factors have a strong influence on the stages of its implementation, one of which is the source of family and husband support. When pregnant women were interviewed in this study, one of them said, "I'm also taking ARVs, yes, she always reminds me to be diligent about taking my medicine. He also supported me in my PMTCT (Prevention Mother to Child Therapy –ed) program. I got the spirit from him. He is the one who always supports to be strong and not give up just because of this disease. From there, I was slowly able to accept the state of my pregnancy which was accompanied by this disease." This statement is in line with previous research, which in its research on the assessment of the emotions experienced by PLHIV (people with HIV/AIDS) and its relation to family support, states that there is a significant role for the family in psychological management in PLWHA. Psychological readiness is very important to accept the situation of PLWHA and continue the HIV treatment program for survival and quality of life.

#### 4. CONCLUSION

This study concluded that support and motivation factors play a large role in the adherence of mothers taking ARVs and efforts to prevent transmission from mother to child. It is hoped that based on this literature review, pregnant women with HIV infection will always be active and comply with the program formulated in the PMTCT or PPIAI program for successful treatment, with the hope that the baby born will not be infected with HIV and will be declared negative. Recommendations are also given to health service providers to always support and not discriminate in carrying out health care management procedures for ODHA clients, especially pregnant women with HIV. This must be supported by the community by not building a negative stigma against ODHA. The researcher also recommends that the government and policy-making stakeholders regarding HIV/AIDS control create regulations that are friendly to ODHA, especially pregnant women with HIV.

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