

# The Effectiveness Meaning in Life and Antiretroviral Therapy (Metart) Book as an to Promotion Adherence Antiretroviral Therapy among New People Living with HIV/AIDS Asesment Pre Intervention

Yafi Sabila Rosyad<sup>1</sup>, Firmina Theresia Kora<sup>2</sup>, Rika Monika<sup>3</sup>, Salis Miftahul Khoeriyah<sup>4</sup>, I Putu Juni Andika<sup>5</sup>

<sup>1</sup>Asist.Prof., Dept. of Mental Health in Nursing, STIKes Yogyakarta, Indonesia, <sup>2</sup>Asist.Prof.Dept of Basic Science and Fundamental of Nursing, STIKes Yogyakarta, Indonesia, <sup>3</sup>Dept. of Community in Nursing, STIKes Yogyakarta, Indonesia, <sup>4</sup>Dept. of Pediatric in Nursing, STIKes Yogyakarta, Indonesia, <sup>5</sup>Dept. of Basic Science and Fundamental of Nursing, STIKes Yogyakarta, Indonesia

## Abstract

Adherence to ART is the primary determinant of viral suppression. Adherence of at least 95% is needed for optimal suppression. One of relationship with HAART is meaning in life. **This study aimed** at assessment meaning in life and adherence antiretroviral therapy before intervention about METART book. **This method** use descriptive statistic analysis to explain social demographic, meaning in life, and adherence antiretroviral therapy. **The result** Characteristics gender people new living with HIV/AIDS this study is 75,6% is Male with 38,5% homosexual. The age range of respondents is in the adult (65,4%). Single merital status is 74.4%. The total respondent with ARV medication is 30.8% under one year. 74.4% has meaningful life but 65,4% respondent has lack adherence ARV. **Conclusion** this research get data pre intervention metart book about demographic, meaning in life, and adherence ARV.

**Keywords:** Adherence ART, meaning in life, HIV/AIDS,

## Introduction

Adherence to ART is the primary determinant of viral suppression and the risk of transmission. it decreases the viral replication and viral load which in turn preserves the CD4 level, decreases the progress of AIDS, and reduces deaths<sup>(1)</sup>. Adherence of at least 95% is needed for optimal suppression<sup>(2,3)</sup>. Antiretroviral therapy has an impressive clinical effect in that WHO has a target that 90% of People Living with HIV/AIDS (PLWHA) already underwent ART by 2016, but the target realization is only 53%. From year to year, PLWHA who undergo antiretroviral therapy is increasing. In 2016, there are 19.5 million or about 53% of the total number of PLWHA, and in mid-June 2017 the number has progressed to 20.9 million or about 56.9% of the total number of PLWHA <sup>(3,4)</sup>. Although adherence is important to the outcomes of therapy<sup>(5)</sup>.

Out of 231 respondents in Nepal , 87.4% (95% CI: 83.2–91.6%) of them had an optimal adherence level and 12.6% of the respondents had an adherence level less than the opti-mal within the last month. i.e. 87.4% of the respondents' attained 95% adherence to prescribed ART regimen<sup>(3)</sup>. Results of the evaluation of adherence to ART in Brazil using CEAT-VIH indicated that 50% (109/220) of the patients presented good adherence, 36% (79/220) presented strict adherence, and 14% (32/220) presented low adherence<sup>(6)</sup>. Based on the results research in Iran, 30.4% (65) of patients were non-adherent and 69.6% (149) showed good adherence to their medication protocols. The most important reason for discontinuation of medication was the patients' unknown personal reasons (n=60, 61.2%), from the non-adherence group<sup>(7)</sup>. Many determinant factors to present non-adherence; quality of life, distress psychology, meaning in life, self-efficacy, peer group, economy, health worker, stigma, motivation, gender <sup>(3,7-11)</sup>.

Effect of non-adherence ARV increases mortality and morbidities. HIV/AIDS has effect to biological, psychological, social, and spiritual. Thus, prevention of co-morbidities, improving knowledge through health education. Psychoeducation should be conducted at the initial evaluation to reduce negative beliefs regarding antiretroviral therapy Assessment of anxiety and depression symptoms should be done throughout therapy as both psychological conditions are associated with patient adherence, success of treatment, and ultimately with patients' quality of life. This study researcher will be increasing of meaning in life to increasing adherence ARV people living with HIV/AIDS.

### Material and Method

The study protocol and consent procedures were reviewed and approved by the Institutional Review Boards of Sekolah Tinggi Ilmu Kesehatan Ngudia Husada Madura with number of ethical clearance 709/KEPK/STIKES-NHM-/EC/IX/2020. In accordance with the approved protocol, written informed consent

was obtained from all study participants prior to data collection. This study is assessment pre intervention of meaning in life and antiretroviral therapy (METART) to promoting adherence antiretroviral therapy. Researcher use meaning in life questionnaire Indonesian version<sup>(12)</sup> and Morisky 8-scale<sup>(13)</sup> to assessment meaning in life and adherence antiretroviral therapy. Data analysis, descriptive statistic<sup>(14-16)</sup> were used to determine statistical differences in demographic variables (i.e., gender, education, marital status, CD4 status, Viral load status, Sexual orientation ), meaning in life and adherence ART.

## Result and Discussion

### Demographic Characteristics

A total of 78 PLWHAs were invited to participate in the study. Demographic Characteristics

Are gender, sexual orientation, age, education level, merital status, ARV medication, CD4 status, and viral load status (Table 1).

**Table 1.1: Demographic Characteristics people new living with HIV/AIDS n=78**

Demographic data	Frequency (n)	Percent (%)
Gender		
Female	16	20.5
Male	59	75.6
Other	3	3.8
Total	78	100
Sexual-orientation		
Heterosexual	26	33.3
Homosexual	30	38.5
Bisexual	15	19.2
Other	7	9
Total	78	100
Age		
Adolescent	24	30.8
Adult	51	65.4
Elderly	3	3.8
Total	78	100
Education-level		
Middle-elementary school	7	9
High school	50	64.1
Undergraduate	20	25.6
Postgraduate	1	1.3
Total	78	100
Merital status		
Sigle	58	74.4
Meried	16	20.5
Window/windower/divorce	4	5.1
Total	78	100

**Cont... Table 1.1: Demographic Characteristics people new living with HIV/AIDS n=78**

ARV-Medication		
0-6 months	18	23.1
7-12 months	24	30.8
13-18 months	17	21.8
19-24 months	19	24.4
Total	78	100
Cd4-Status		
<200	13	16.7
200-300	13	16.7
300-400	20	25.6
400-500	14	17.9
>500	11	14.1
I don't know	7	9
Total	78	100
Viral load status		
Detections	16	20.5
Un-detections	22	28.2
I don't know	40	51.3
Total	78	100

Characteristics gender people new living with HIV/AIDS this study is 75,6% is Male with 38,5% homosexual. Homosexual is romantic sexual attraction, behavior with same sex<sup>(17)(18)(19)</sup>. The age range of respondents is in the adult (65,4%) age range which is above 25-45 where this age is a productive to developmental task of choosing a job and marriage. This time is also a time to build the peak structure of life<sup>(20)</sup>. Sigle merital status is 74.4%. the total respondent with ARV medication is 30.8% under one year. Almost respondent have CD4 under 500, a normal CD4 cell count is about 500 until 1.500 cells/mm<sup>3</sup>. Clinicians use this test to monitor the destruction of CD4 cells, and it also monitors the effectiveness of the antiretroviral treatment (ART). For a physician, the CD4 cell count has become the best indicator of disease

progression and is used to stage disease and guide medical therapy. Per the Center for Disease Control and Prevention (CDC), one of the indications for the diagnosis of AIDS is when CD4 cell count drops below 200 cells/mm<sup>3</sup>. The decline of CD4 T cells can lead to opportunistic infections, and it increases mortality. The results of a viral load test are described as the number of copies HIV RNA in a milliliter of blood, when somebody has undetected of viral load is described if the copies of HIV RNA of blood in very low and its good for healthy<sup>(10,11)</sup>.

**Meaning in life**

The result of meaning in life people with HIV/AIDS in this research is 74.4% has meaningfull life (Tabel 2).

**Tabel 2: Meaning in life people living with HIV/AIDS n=78**

Meaning in Life	Frequency (n)	Percent (%)
Meaningfull life	58	74.4
Low meaning in life	20	25.6
Total	78	100

Meaning in life is comprehended from every event that occurred and experienced both pleasant and distressing events. It will bring a person into a meaningful life so that the feeling of happiness will emerge, on contrary it can lead one to a meaningless empty life if they unsuccessful<sup>(23-25)</sup>. Meaning in life had a different function for each individual, but according to Mackenzie & Baumeister (2014), the function of meaning in life

could be divided into three function themes<sup>(26)</sup>. The first function was to help someone in recognizing and discussing signs and patterns in the environment. The second function was for communication. The third function was for self-control. The meaning in life according to Starck (2014), was said to be the phase where a person reached his life goal<sup>(27)</sup>. The meaning in life have correlations with adherence ARV<sup>(11)</sup>.

### Adherence antiretroviral therapy

**Table 3: Adherence antiretroviral therapy n=78**

Adherence antiretroviral therapy	Frequency (n)	Percent (%)
High adherence	27	32.6
Middle adherence	26	33.3
Low adherence	25	32.1
Total	78	100

From the research results obtained that 59 respondents or 57.8% were adherence to antiretroviral therapy and the rest did not comply as much as 43 respondents or 42.2%. This level of adherence was seen from the accuracy of the dosage and the frequency of time-consuming ARV. The non-adherence of respondents based on the questionnaires due to forgetting to take the drugs by 26.5% and difficult to remember to consume the drugs by 28.4%.

ART treatment has the potential to reduce mortality and morbidity that associated with HIV infection, and improve the quality of life<sup>(28,29)</sup>. A person is said to be adherent in undergoing an optimal antiretroviral therapy if (> 95%) never forgets to take the drug, but it is recommended that the adherence is (100%). According to Bangsberg, Kroetz, & Deeks, (2007), ART adherence should be observed to discern the compliance level of the treatment, as some studies indicate that with treatment adherence of (95%) or more indicates the effectiveness of antiretroviral therapy<sup>(30)</sup>, but on adherence (75%) shows a rise of viruses with retention against drugs<sup>(31)</sup>. Some patients fail to maintain ART adherence<sup>(32)</sup>. Optimal ART adherence was significantly associated with being virally suppressed<sup>(1,7,9,10)</sup>.

Many factors to associate ART is motivation on the relationship between HIV stigma and ART adherence<sup>(10)</sup>.

### Conclusion

Characteristics gender people new living with HIV/AIDS this study is 75,6% is Male with 38,5% homosexual. The age range of respondents is in the adult (65,4%). Single marital status is 74.4%. The total respondent with ARV medication is 30.8% under one year. 74.4% has meaningful life but 65,4% respondent has lack adherence ARV.

**Conflict of Interest:** No conflict on interest

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