

# Factors Determining Coping Strategies in HIV/AIDS Survival

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## ABSTRACT

**Introduction:** Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are still global health problems. Although the incidence of HIV has decreased from 0.40 people per 1000 to 0.26 people per 1000 people who are not infected in 2016, the trend is still concerning. Indonesia is ranked 5th as the country most at risk of HIV/AIDS in Asia, so the HIV/AIDS epidemic is also a problem in Indonesia. **Objective:** To identify determinants of coping strategies for HIV/AIDS survivors. **Methods:** This research is an analytic study with a cross sectional research design, and a quantitative approach. Research subjects in the group were selected randomly. The sample in this study, namely PLWHA who were recorded at the Regional General Hospital (RSUD) of Tangerang Regency, amounted to 36 PLWHA. **Results:** In Education with Coping Strategies, the  $p$ -value was 0.043. **Conclusion:** It can be concluded that there is a relationship between Education and Coping Strategies in Tangerang District Hospital, while the coping strategy with openness status, history of opportunistic infections and outcome expectations stated that there was no relationship with openness. status, history of opportunistic infections, and outcome expectations, with different  $p$ -values.

**Keywords:** *HIV/AIDS; Coping Strategies; Health Information Systems*

## INTRODUCTION

Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are still global health problems. Although the incidence of HIV has decreased from 0.40 people per 1000 to 0.26 people per 1000 people who are not infected in 2016, the trend is still concerning (Hasibuan, Aryani, Simanjuntak 2019). so, Indonesia is ranked 5<sup>th</sup> as the country most at risk of HIV/AIDS in Asia, so the HIV/AIDS epidemic is also a problem in Indonesia (Ministry of Health of the Republic of Indonesia, 2013). Based on data from Ministry of Health of the Republic of Indonesia, Banten Province is in the 16th position which is a province with a fairly large number of cases at the national level. There were 5,600 HIV cases and 1,641 AIDS cases in Banten Province in 2016 with the most sufferers coming from entrepreneurs (22.5%), housewives (18.4%), and HIV cases were mostly suffered by men, amounting to 54% compared to women in the 25–50-year age group (Latipah, Dewi, & Susilo, 2018).

Individuals who are declared to have HIV/AIDS experience very complex problems. PLWHA do not only experience physical suffering due to the disease process it also suffers from psychosocial functions such as stress, frustration, anxiety, anger, denial, grief, and shame. Being diagnosed with HIV with the entry of the HIV virus into the body becomes a biological stressor that has an impact on the sufferer caused by physical symptoms that appear, the effects of drugs taken, fear of death to social problems such as stigma and community discrimination (Hasibuan, Aryani & Simanjuntak 2019; Salami, Muvira & Yualita 2021; Fadli, 2015).

There are several studies that are related to coping strategies for HIV/AIDS survivors, including the research conducted by Salami, aims to explore coping strategies for HIV/AIDS sufferers. The research was conducted using Miles and Huberman's interactive analysis technique. The results obtained revealed six themes: surrender to God; don't want to think about illness; diversion of problems; endeavour to rise; efforts to solve problems; and hiding health status. Based on this research, it can be concluded that HIV/AIDS sufferers have a tendency to do emotion-focused coping (Salami, Muvira, & Yualita, 2021).

Kustanti & Chrisnawati in her research showed that most PLWHA have a Problem Focused Coping (PFC) coping strategy with high self-acceptance as many as 36 respondents, while HIV survivors who have Coping strategy based on

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Emotion Focused Coping (EFC) with self-acceptance as many as 14 respondents with  $p$ -value  $0.001 < 0.1$ , so it can be concluded that there is a relationship between coping strategy and self-acceptance of people with HIV/AIDS. Against this background, it is necessary to make new breakthroughs to strengthen and improve coping strategies for HIV/AIDS survivors. The provision of comprehensive and continuous intervention on coping strategy needs to be given to HIV survivors. Therefore, the media is needed to improve coping strategies and positive attitudes to HIV survivors. The purpose of this study was to identify the determinants of coping strategies in HIV/AIDS survivors.

## METHODOLOGY

This research is an analytic study with a cross sectional research design, and a quantitative approach. The research subjects in the group were selected randomly. The sample in this study, namely PLWHA who were recorded at the Regional General Hospital (RSUD) of Tangerang Regency, amounted to 36 HIV survivors. In this study, the sample criteria include inclusion and exclusion criteria where these criteria determine whether or not the sample can be used. The considerations in determining the sample in this study can be seen as inclusion and exclusion criteria. The research inclusion criteria are active members of the Tangerang Regency General Hospital (RSUD), aged > 17 years, able to read and willing to be respondents.

### Ethical Consideration

This study was approved on May 25th, 2022, by the Regional General Hospital (RSUD) of Tangerang Regency under Decree Number 445/2463-RSU TNG.

## RESULTS

### 1. Demographics of Respondents

*Table 1: Demographics of Respondents (n=36)*

Demographics of Respondents	n	%
<b>Gender</b>		
Male	24	66.7
Female	12	33.3
<b>Education</b>		
Basic	2	5.6
Junior high school	5	13.9
Senior high school	23	63.9
Bachelor	6	16.7

Source: Primary Data, 2022

Based on table 1, it can be seen that the demographics show that sex in HIV survivors is dominated by male as much as 24 (66.7%). In demographics, the highest education level (Senior high school) for HIV survivors is high school graduates as many as 23 (63.9%).

### 2. Characteristics of Respondent

*Table 2: Characteristics of Respondents*

Univariate Analysis	N	(%)
<b>Openness of the Partner Status</b>		
No	11	30.6
Yes	25	69.4
<b>History of Opportunistic Infections</b>		
Infected	18	50.0
Not infected	18	50.0
<b>Outcome Expectation</b>		
Moderate	13	36.1
High	23	63.9
<b>Coping Strategy</b>		
Low	3	8.3
Moderate	8	22.2
High	25	69.4
<b>Total</b>	<b>36</b>	<b>100.0</b>

Source: Primary Data, 2022

Based on Table 2, it can be seen that the characteristics of the respondents showed the openness of the partner status, with the category of knowing as many as 25 (69.4%). The characteristics of respondents showing a history of opportunistic infections have the same results with the category of not infected and infected as many as 18 (50.0%). The characteristics of the respondents showed that the outcome expectation had a high category count of 23 (63.9%).

### 3. Correlation between Education and Coping Strategy

**Table 3: Correlation Between Education and Coping Strategy among HIV/AIDS Survival in Tangerang Public Health Hospital**

Education	Coping Strategy						Total		p-value
	Low		Moderate		High		N	%	
	N	%	N	%	N	%			
Basic	0	0	0	0	2	100.0	2	100.0	0.043
Junior high school	2	40.0	0	0	3	60.0	5	100.0	
Senior high school	1	4.3	8	34.8	14	60.9	23	100.0	
Bachelor	0	0	0	0	6	100.0	6	100.0	
<b>Total</b>	3	8.3	8	22.2	25	69.4	36	100.0	

Source: Primary Data, 2022

Based on table 3, it can be seen that the relationship between education and coping strategy states that the highest score for high school graduates is 14 respondents. then the results of statistical tests with a p-value of 0.043 which states that there is a relationship between education and coping strategy at Tangerang District Hospital.

### 4. Relationship Status Openness in Couples with Coping Strategy.

**Table 4: Relationship Status Openness in Couples with Coping Strategy among HIV/AIDS Survival in Tangerang Public Health Hospital**

Openness of the Partner Status	Coping Strategy						Total		p-value
	Low		Moderate		High		N	%	
	N	%	N	%	N	%			
No	1	9.1	3	27.3	7	63.6	11	100.0	0.874
Yes	2	8.0	5	20.0	18	72.0	25	100.0	
<b>Total</b>	3	3.8	8	22.2	25	69.4	36	100.0	

Source: Primary Data, 2022

Based on table 4, it can be seen in the relationship of status disclosure in couples with coping strategies, with the highest value in couples who know the status of their partners, as many as 18 respondents. Then came the results of the statistical test with a p-value of 0.874 which states that there is no relationship between the status disclosure of couples and their coping strategy at the Tangerang District Hospital.

### 5. Relationship History of Opportunistic Infections with Coping Strategy

**Table 5: Relationship History of Opportunistic Infections with Coping Strategy among HIV/AIDS Survival in Tangerang Public Health Hospital**

History of Opportunistic Infections	Coping Strategy						Total		p-value
	Low		Moderate		High		N	%	
	N	%	N	%	N	%			
Infected	0	0.0	4	22.2	14	77.8	18	100.0	0.186
Not infected	3	16.7	4	22.2	11	61.1	18	100.0	
<b>Total</b>	3	8.3	8	22.2	25	69.4	36	100.0	

Source: Primary Data, 2022

Based on Table 5, it can be seen that the relationship between a history of opportunistic infections and coping strategy stated that the highest score was in HIV survivors who had been infected, with as many as 14 respondents. So, the results of statistical tests with a *p*-values of 0.186 which states that there is no relationship between a history of opportunistic infections and coping strategy at the Tangerang District Hospital.

6. Relationship between Outcome Expectations and Coping Strategy.

**Table 6: Relationship between Outcome Expectations and Coping Strategy among HIV AIDS Survival in Tangerang Public Health Hospital**

Outcome Expectation	Coping Strategy						Total		Correlation coefficient <i>r</i> ; <i>p</i> -value
	Low		Moderate		High		N	%	
	N	%	N	%	N	%			
Moderate	2	15.4	4	30.8	7	53.8	13	100.0	0.273
High	1	4.3	4	17.4	18	78.3	23	100.0	
Total	3	8.3	8	22.2	25	69.4	36	100.0	

Source: Primary Data, 2022

Based on table 6, it can be seen that the relationship between outcome expectations and coping strategy stated the highest score on outcome expectations as many as 18 respondents. Then the results of statistical tests with *p*-value get a value of 0.273 which states that there is no relationship between coping strategy and outcome expectations in Tangerang District Hospital.

**DISCUSSION**

**1. Relationship between Education and Coping Strategy**

Based on what the researchers found about the relationship between education and coping strategy, the highest score for high school graduates was 14 respondents. then the results of statistical tests with a *p*-value of 0.043 which states that there is a relationship between education and coping strategy at Tangerang District Hospital.

Education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state. Republic of Indonesia, 2003. Law No. 20 of 2003 concerning Education No.1). This is directly proportional to showing a significant relationship between education and stigmatization for HIV survivors (Berek, Pius & Wendelina, 2019).

**2. Relationship Status Openness in Couples with Coping strategy**

Based on table 4, it can be seen in the relationship of status disclosure in couples with coping strategy, stating the highest value in couples who know the status of partners were as many as 18 respondents. So, the results of the statistical test using the phi correlation test with a 95% confidence degree ( $\alpha = 0.05$ ) with *p*-value getting a value of 0.874 which states that there is no relationship between status openness in couples with coping strategy at Tangerang District Hospital (Andriati *et al.*, 2022).

Some HIV survivors are able to do self-disclosure. The results obtained by HIV survivors after disclosing their HIV status to their families are that the family gives positive support to HIV survivors to always take treatment, even though at the beginning of self-disclosure they experienced ostracism by the family. Self-disclosure is carried out by HIV survivors because it has a certain drive and purpose. The benefits of self-disclosure felt by the subject to those closest to him are that the subject feels calm, the burden of thinking about his illness is reduced, and he can share experiences with those who listen to the story so that they are careful and do not get infected like infected (Suriana & Dewi, 2013).

This is directly proportional to which shows that there is no relationship between openness about HIV status and the self-stigma of HIV survivors at JCC+, Jombang Regency. So, the hypothesis (*H*<sub>0</sub>) is accepted, namely that there is no significant relationship between openness about HIV/AIDS status and self-stigma in HIV survivors at Jombang Care Center Plus (JCC+) (Pujilestari, 2020).

### 3. Relationship History of Opportunistic Infections with Coping Strategy

Based on what the researchers found, the relationship between a history of opportunistic infections and coping strategy stated that the highest score was in patients living with HIV who had been infected, with as many as 14 respondents. Then the results of the statistical test using the phi correlation test with a 95% confidence degree ( $\alpha = 0.05$ ) with  $p$ -value getting a value of 0.186 which states that there is no relationship between a history of opportunistic infections and coping strategy at the Tangerang District Hospital.

Infections are caused by a decrease in the immune system and occur because of microorganisms that enter the body (bacteria, fungi, viruses, etc.). OIs can also be caused by the reactivity of latent infections, which are normally controlled by the body's immune system. Initially, HIV patients do not show symptoms, but many clinical manifestations arise due to immunological disorders. Opportunistic infections, or OIs can cause >90% mortality in AIDS patients. OIs that are often found include fungal infections, herpes, toxoplasmosis and CMV (Machhi *et al.*, 2020; Bhuvana, Hema & Patil, 2015).

This is directly proportional to where, showing a significant relationship between comorbidities (Comorbidity/Opportunistic Infections (IO) and the level of ARV adherence (Framasari *et al.*, 2020).

### 4. Relationship between Outcome Expectations with Coping Strategy

Based on what the researchers got, it can be seen that the relationship between outcome expectations and coping strategy stated the highest score on outcome expectations as many as 18 respondents. Then the results of the statistical test using the phi correlation test with a 95% confidence degree ( $\alpha = 0.05$ ) with  $p$ -value getting a value of 0.273 which states that there is no relationship between coping strategy and outcome expectations in Tangerang District Hospital.

Outcome expectancies are subjective beliefs about the likelihood of individual behavior with subsequent results. The results are evaluated according to the level of negative favorability that a person expects by changing the behavior, the more likely the person will form an intention that supports the target behavior. Expectations of both positive and negative outcomes correspond to two distinct dimensions, although they do not necessarily stand alone. Outcome expectations are seen as important in the motivational stage, when one balances the pros and cons of the consequences of certain behaviors. Furthermore, one must believe in one's own ability to perform the desired action. Otherwise, the outcome expert will fail to take action. Outcome expectancies collaborate with self-efficacy, so that both contribute substantially to the formation of intentions (Pujilestari, 2020).

This is not in line with showing a significant relationship between outcome expectations and adherence to antiretroviral therapy for HIV survivors. The level of correlation that exists is moderate. The correlation is in a positive direction, which means that the higher the outcome expectations, the better the expected outcome for HIV survivors from the antiretroviral therapy they are undergoing.

## CONCLUSION

A good education will affect a person's knowledge and the way a person behaves in coping strategy for HIV survivors. Understanding someone's knowledge can help policymakers make decisions based on that information.

## Recommendation

Innovative steps are needed to improve coping strategies for HIV survivors.

## Conflict of Interest

The authors declare that they have no conflict of interest.

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