



Analysis of Coping Strategies and Self-Stigma Among People Living with HIV (PLHIV): A Cross Sectional Study

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Abstract:

Introduction: People living with HIV (PLHIV) generally experience physical and psychological stress, often including self-stigma, which impedes their ability to seek treatment and reveal their status. Implementing effective coping strategies helps them manage these impacts on well-being. However, research that explores coping strategies and self-stigma in newly diagnosed people with HIV in Indonesia is still limited.

Objective: This study aimed to investigate the relationship between coping strategies and self-stigma in people living with HIV.

Methods: This cross-sectional study was conducted at the Poncol and Halmahera Public Health Centers in Semarang City, Indonesia, involving 150 PLHIV diagnosed for no more than one year. This study used the Way of Coping Questionnaire and Self-Stigma Questionnaire as instruments. Data were analyzed using the Sommers test.

Results: The majority of respondents, accounting for 64.7%, had low coping strategies, while 74% experienced self-stigma in the high category. The correlation test results revealed a p-value of 0.001 with a correlation strength of 0.375, falling within the moderate category.

Conclusion: It is concluded that there is a relationship between coping strategies and self-stigma among PLHIV.

Keywords: Coping strategies, Cross-sectional, HIV, Indonesia, Public health center, Self-stigma.

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1. INTRODUCTION

HIV is a severe disease that has far-reaching effects on the physical and psychological health of infected individuals. In addition to the physical stress and symptoms of the disease, people living with HIV (PLHIV) also experience significant psychological distress [1, 2]. Self-stigma in HIV refers to individuals' experience of feeling shame, guilt, or self-degradation due to their condition. Self-stigma can prevent individuals from

seeking appropriate care, disclosing their HIV status to others, or leading productive and meaningful lives [3].

Research indicates that self-stigma is a significant issue for PLHIV in developing countries, creating a severe obstacle in the management of HIV/AIDS. In Indonesia, for example, self-stigma is one of the primary challenges faced by people with HIV/AIDS, as the negative perception of their condition by the public often hinders access to necessary healthcare and social support [4]. Surveys show

that self-stigma is often triggered by a negative perception of the disease, uncertainty about treatment, and shame caused by existing stigma. These factors result in delays in seeking optimal HIV/AIDS treatment [5].

Several distinctions emerge when comparing coping strategies and self-stigma between Organization for Economic Co-operation and Development (OECD) countries and Low- and Middle-Income Countries (LMICs). OECD nations often possess more robust mental health infrastructure and resources, allowing for greater access to diverse coping mechanisms, including professional counseling, support groups, and psychotherapy [6]. In contrast, LMICs may face resource constraints and limited access to mental health services, resulting in reliance on informal coping strategies, such as social support from family and community networks [7]. Moreover, while self-stigma remains prevalent across both settings, the manifestation may differ. In OECD countries, awareness campaigns and advocacy efforts have contributed to reducing public stigma, potentially mitigating self-stigma among individuals with mental health conditions [6]. Conversely, in LMICs, where mental health literacy and awareness are lower, self-stigma may be exacerbated by societal misconceptions and cultural beliefs surrounding mental illness [8]. Therefore, while coping strategies and self-stigma are universal experiences, their expression and effectiveness can vary significantly between OECD and LMIC contexts. This underscores the importance of tailored interventions and policy frameworks to address the unique challenges faced by each population.

Coping strategies are efforts that individuals make to cope with stress, manage negative emotions, and deal with challenging situations [9, 10]. In the context of HIV, individuals living with this condition employ various coping strategies to navigate the physical, social, and psychological impacts associated with the disease [11]. Analyzing coping strategies provides valuable insights into the effective ways individuals living with HIV manage the challenges associated with the disease, fostering resilience and improved well-being. Examining coping strategies empowers individuals living with HIV to identify and utilize adaptive approaches to navigate the physical, social, and psychological impacts of the disease, leading to enhanced quality of life.

Analyzing coping strategies and HIV self-stigma is also important in designing effective psychosocial interventions and support for individuals living with HIV. Appropriate support can help individuals develop adaptive coping strategies, reduce self-stigma, and improve their quality of life [12]. After analyzing coping strategies and self-stigma, interventions can be designed to strengthen personal resources, increase social support, and promote positive mental health for individuals with HIV.

Nurses play a vital role in analyzing coping strategies and addressing self-stigma among HIV patients. As trusted healthcare professionals, nurses have a unique opportunity to establish a supportive and empathetic relationship with HIV patients, creating a safe space for open communication [13]. By actively listening and

observing patients' behaviours, nurses can assess coping mechanisms employed by individuals to deal with the challenges of living with HIV. They can provide education and guidance on effective coping strategies, such as seeking social support, engaging in self-care activities, and accessing mental health services. Additionally, nurses can help patients address self-stigma by promoting self-acceptance, fostering positive self-image, and challenging negative beliefs [14]. By working closely with HIV patients, nurses contribute to enhancing their overall well-being and empowering them to live fulfilling lives with reduced self-stigmatization.

Few studies have been conducted to explore self-stigma among PLHIV in Indonesia. Ignoring the analysis of coping strategies hinders the understanding of effective methods for individuals living with HIV to deal with the challenges they face, potentially perpetuating negative outcomes and diminished well-being. Neglecting the analysis of self-stigma related to HIV undermines efforts to address the internalized shame and negative self-perceptions experienced by individuals with the disease, hindering their ability to seek necessary support and engage in self-care [15].

Investigating coping strategies and self-stigma among PLHIV holds significant clinical importance in understanding the psychosocial dynamics of HIV management. By exploring how PLHIV cope with stigma internally and externally, healthcare professionals can tailor interventions to enhance patients' mental and emotional well-being while optimizing treatment adherence and health outcomes. Understanding the efficacy of various coping strategies can inform the development of targeted interventions to reduce self-stigma and improve overall quality of life for PLHIV [16, 17].

This study is unique in that it focuses on the population of individuals diagnosed with HIV. Specifically, the study is conducted on newly diagnosed HIV patients in two public health centers. The results of this study will be valuable in identifying ways to minimize coping strategies, as well as reducing the negative impact of self-stigma among those living with HIV. This study provides valuable insights into the coping strategies PLHIV employs to manage self-stigma. Understanding these strategies enhances our knowledge of how individuals adapt to and navigate the challenges posed by self-stigma. Thus, this study aimed to examine the relationship between coping strategies and self-stigma among PLHIV.

2. METHODS

2.1. Research Design

This study utilized a cross-sectional design.

2.2. Study Participants

Data collection occurred from November 2022 to February 2023 at Poncol and Halmahera Public Health Centers in Semarang, Central Java, Indonesia. The Lemeshow formula was used to calculate the sample size,

determining that a minimum sample size of 150 PLHIV would provide accurate values at a 95% confidence interval (95% CI) level. PLHIV were recruited through purposive sampling to complete a self-administered questionnaire. This study targeted PLHIV who met specific criteria, such as those diagnosed with HIV for not more than one year. PLHIV with cognitive impairments and those in deteriorating conditions were excluded. Informed consent was obtained from all participants and their families before data collection.

2.3. Variable, Instrument, and Data Collection

The independent variable was coping strategies, while the dependent variables were self-stigma. Respondent characteristics, including age, gender, and educational attainment, were also collected.

Coping strategies were assessed using the Way of Coping Questionnaire (WOCQ) Indonesian version. The WOCQ consists of 50 items, with three domains of problem-focused coping and five domains of emotion-focused coping. The validity test values ranged from 0.70 to 0.81, and the reliability test obtained a Cronbach alpha value of 0.725.

Self-stigma was measured using the Indonesian version of the Self-Stigma Questionnaire with 28 items. The validity and reliability of the Indonesian version of the questionnaire were tested, resulting in a Cronbach's alpha value of 0.769. The self-stigma questionnaire comprises 35 items with three indicators: cognitive, attitude and

behavior. The validity test results obtained an r-value of 0.367-0.839, while the reliability test received a Cronbach's alpha value of 0.955.

2.4. Data Analysis

The Sommer test assessed the relationship between coping strategies and self-stigma. Participant characteristics were presented using descriptive statistical methods, including frequency distribution, percentage, mean, and standard deviation. A p-value of 0.05 or lower determined statistical significance. Data analysis was conducted using SPSS software.

3. RESULTS

3.1. Demographic and Clinical Characteristics of Participants

Table 1 provides an overview of the demographic characteristics of the participants. The mean age of participants was 30 years old. The average duration of illness was two months. Most participants, or 64%, were male, and 46.6% had completed senior high school. Regarding marital status, the majority were single (70%).

3.2. Coping Strategies and Self-stigma

Table 2 illustrates the coping strategies and self-stigma among PLHIV. In terms of coping strategies, the majority of the participants reported a good level of coping, while for self-stigma, the majority of the participants were found to have a low level of self-stigma.

Table 1. Demographic characteristics of participants (N=150).

Characteristics	Mean (SD)	n (%)
Age (years)	30.13±4.755	-
Illness duration (month)	2.16±1.443	-
Gender	-	-
Male	-	96 (64.0)
Female	-	36 (36.0)
Education	-	-
Elementary	-	0 (0)
Junior high	-	25 (16.7)
Senior high	-	70 (46.6)
Higher education	-	55 (36.7)
Marital status	-	-
Single	-	105 (70.0)
Married	-	33 (22.0)
Divorced	-	12 (8.0)

Table 2. Frequency distribution of coping strategies and self-stigma among PLHIV (N=150).

Variables	n (%)
Coping Strategies	-
High	97 (64.7)
Moderate	13 (8.6)
Low	40 (26.7)
Total	150 (100.0)
Self-stigma	-

(Table 2) contd....

Variables	n (%)
Low	111 (74.0)
Moderate	25 (16.7)
High	14 (9.3)
Total	150 (100.0)

Table 3. Relationship between coping strategies and self-stigma (N=150).

		Self-stigma				r	P-value
		High	Moderate	Low	Total		
		N	N	N	N		
Coping Strategies	Low	85	12	0	97	0.375	0.0001
	Moderate	2	6	5	13		
	High	24	7	9	40		
Total		111	25	14	150	-	

3.3. Relationship between Coping Strategies and Self-stigma among PLHIV

The Sommers test indicated a relationship between coping strategies and self-stigma, with a p-value of 0.0001 ($p < 0.05$). Additionally, the strength of the relationship was identified as a low positive correlation ($r = 0.375$) (Table 3).

4. DISCUSSION

The age characteristics of PLHIV who experience self-stigma show important variations in their perceptions and experiences of their condition. Individuals diagnosed with HIV at a younger age tend to experience higher levels of self-stigma because they may still be in the process of identity formation and face greater social pressure to conform to social norms [18, 19]. Additionally, they may lack experience in managing stigma and discrimination, making them more vulnerable to its negative impacts. On the other hand, individuals diagnosed at a later age in their lives may have greater knowledge and experience in dealing with emotional and social challenges, which may help them better cope with self-stigma [5].

Research indicates that men are more likely to experience HIV-related self-stigma than women. This can be caused by several factors, including traditional gender roles that place men in a position that is more vulnerable to health-related stigma. Men may feel pressured by societal expectations to demonstrate strength, courage, and masculinity, making it difficult for them to express emotions or seek help when confronted with HIV-related stigma [19].

The recent educational attainment of PLHIV who experience self-stigma can influence their perceptions and abilities in dealing with this condition. Individuals with low or limited education may be more vulnerable to self-stigma because they may have limited access to accurate information about HIV and treatment, as well as a lack of ability to challenge stereotypes and discrimination against the disease [19, 20]. In contrast, individuals with higher education levels may have greater knowledge about HIV and the ability to seek and understand available resources to overcome self-stigma.

The length of illness in PLHIV who experience self-stigma can influence their perception of their condition. Individuals recently diagnosed with HIV may experience higher levels of self-stigma because they are still in the process of accepting and understanding their diagnosis and face great social and emotional pressure to conceal their HIV status [21, 22]. On the other hand, individuals living with HIV for longer periods may have developed better-coping strategies and built strong support networks, which may help them overcome self-stigma more effectively.

The marital status of PLHIV who experience self-stigma can significantly influence their experiences. Married individuals may experience additional concerns related to their partner's reaction to their HIV status. They may feel burdened by fears of rejection, loss of support, or a breakdown in their relationship [23]. On the other hand, individuals who are not married or in non-official relationships may feel isolated and lonely in facing the stigma associated with HIV without the support of a partner.

HIV diagnosis and ongoing management can lead to a range of emotional challenges, including anxiety, depression, and stress. Effective coping strategies can help individuals regulate and manage their emotions effectively. These strategies may involve seeking social support, engaging in therapy or counseling, practicing mindfulness or meditation, and engaging in activities that promote relaxation and emotional well-being. By implementing these coping strategies, individuals can reduce emotional distress and enhance their overall quality of life [24, 25].

Living with HIV can introduce enormous stressors related to health management, stigma, disclosure selections, and social relationships. Coping techniques help individuals effectively manage and reduce stress levels. Coping strategies may include engaging in regular exercises, practising relaxation techniques (e.g., deep breathing, progressive muscle relaxation), maintaining a healthy lifestyle, and seeking support from friends, family, or support groups. By managing stress efficiently, indivi-

duals can enhance their standard of living, well-being, and immune system function [26, 27].

HIV patients regularly encounter diverse practical challenges related to healthcare navigation, disclosure, employment, and monetary concerns. Coping techniques focusing on problem-solving skills can empower individuals to address these demanding situations effectively. By enhancing their problem-solving abilities, individuals can identify potential solutions, access appropriate sources, and take proactive steps to overcome barriers. These coping strategies can enhance their sense of control, self-efficacy, and ability to navigate the complexities of living with HIV [28-30].

Building and maintaining social support networks are crucial for individuals living with HIV. Coping strategies that involve seeking and nurturing social support can provide emotional, practical, and informational assistance. These strategies may include reaching out to friends, family, support groups, or community organizations specializing in HIV support. By fostering social connections, individuals can combat isolation, reduce stigma-related stress, and access resources that contribute to better HIV management and overall well-being [31, 32].

Furthermore, coping strategies can impact self-stigma. When individuals internalize negative beliefs about themselves, they may engage in maladaptive coping mechanisms, such as avoidance, denial, or substance abuse, to cope with the emotional distress caused by self-stigma [33, 34]. However, these coping strategies are often ineffective in addressing the challenges of living with HIV and can further perpetuate negative outcomes.

Self-stigma can affect adherence to HIV treatment regimens. Individuals who hold stigmatizing beliefs about themselves may exhibit self-sabotaging behaviours, such as intentionally missing medication doses or neglecting healthcare appointments [35-37]. Consequently, this can lead to suboptimal health outcomes and increased viral load, which further reinforces negative self-perceptions and exacerbates the cycle of self-stigma.

Self-stigma is associated with higher rates of anxiety, depression, and psychological distress among individuals living with HIV. These mental health challenges can further hinder coping strategies, as individuals may struggle to engage in self-care activities, seek support, or implement effective stress management techniques [20, 38]. Therefore, addressing self-stigma is crucial for promoting positive mental health outcomes and improving coping abilities.

The Indonesian government has implemented several initiatives to manage the stigma associated with HIV within the country. These programs include promoting health education through mass media to address discriminatory attitudes towards PLWH [39]. Furthermore, through the National Action Plan, efforts have been made to reduce stigma and discrimination against PLWH at the district and city levels [40]. However, challenges like the stigma attached to HIV/AIDS impede the formulation of effective government policies and regulations due to

limited community participation [41]. Nonetheless, organizations such as the Indonesia AIDS Coalition (IAC) are committed to supporting the government's efforts to end AIDS by 2030, aligning with global targets to achieve the 95-95-95 goals [42]. This collaborative approach between governmental and non-governmental entities underscores the importance of addressing HIV-related stigma as part of a comprehensive strategy to combat the HIV/AIDS epidemic in Indonesia.

PLHIV who experience self-stigma may avoid necessary care, increase the risk of disease transmission, and refrain from getting the social support they need to overcome the challenges they face [43]. In addition, self-stigma can worsen symptoms of depression and anxiety, as well as hinder effective adaptation and coping processes in dealing with an HIV diagnosis. In the long term, self-stigma can harm overall HIV prevention and control efforts, and adversely impact the well-being of affected individuals. Therefore, it is important to address self-stigma with a holistic approach and ensure that individuals living with HIV receive the support they need to live healthy and meaningful lives.

This study showed a relationship between coping strategies and self-stigma. It can be defined that coping strategies can also have an effect on individuals' conduct and their decision to reveal their HIV status. Individuals who have developed effective coping techniques may be more likely to disclose their status and engage in behaviors that promote self-care, seeking support, and accessing appropriate healthcare services. Nonetheless, self-stigma can act as a barrier to disclosure and may impact individuals' coping strategies by leading to avoidance, secrecy, or social withdrawal.

There were various limitations to this investigation. Initially, to guarantee generalizability, a greater number of HIV-positive individuals should be included in the next investigations. Recall bias may be considered present in our data, considering that it relied on PLHIV self-reported data. Furthermore, there were no objective coping mechanisms, self-stigma assessments using equipment, or clinically recorded stress symptoms. The most popular self-reported indicators of coping strategies and self-stigma, however, are the validated measures of the way of coping questionnaire and the self-stigma questionnaire. Therefore, it is doubtful that our estimations are significantly off.

CONCLUSION

This study has demonstrated a significant relationship between coping strategies and self-stigma. Effective coping strategies can play a crucial role in mitigating self-stigma and its negative impact on the well-being of individuals with HIV. By implementing adaptive coping strategies, such as seeking social support, practicing self-care, and challenging negative self-beliefs, individuals can reduce self-stigma, enhance their self-esteem, and improve their overall psychological well-being. However, it is essential to recognize that addressing self-stigma requires a comprehensive and multifaceted approach that

includes education, support networks, and creating inclusive environments. Future research should continue to explore the intricate interplay between coping strategies and self-stigma while considering diverse populations and cultural contexts to inform targeted interventions and support for individuals living with HIV nationwide.

LIST OF ABBREVIATIONS

PLHIV	=	People living with HIV
OECD	=	Co-operation and Development
LMICs	=	Low- and Middle-Income Countries
WOCQ	=	Way of Coping Questionnaire

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The research has received ethical approval from the Health Research Ethics Committee, Faculty of Nursing, Universitas Islam Sultan Agung, Semarang, based on ethical certificate 920/A.1/KEPK-FIK-SA/XI/2022.

HUMAN AND ANIMAL RIGHTS

No animals were used that are the basis of this study. All human research procedures were followed in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national) and with the Declaration of Helsinki.

CONSENT FOR PUBLICATION

Written informed consent was obtained for anonymized patient information to be published in this article.

STANDARDS OF REPORTING

STROBE guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

The data supporting the findings of the article is available in the Amal, A. I. (2024). Data Support Findings of Analysis of Coping Strategies and Self-Stigma Among People Living with HIV (PLHIV): A Cross Sectional Study. Zenodo. <https://doi.org/10.5281/zenodo.10906996>.

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CONFLICT OF INTEREST

The authors declare no conflict of interest financial or otherwise.

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