

# Exploring the relationship between self-stigma and resilience among people living with HIV: a cross-sectional study

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## Abstract

HIV is a disease that not only affects physical health but also carries a heavy psychological burden, primarily through self-stigma. Self-stigma can lead to low self-esteem, helplessness, and social isolation, weakening resilience or an individual's ability to survive and adapt to life's challenges. However, there is a gap in knowledge regarding the specific mechanisms by which resilience can mitigate the impact of self-stigma on PLHIV. Whether resilience can completely neutralize the effects of self-stigma or

only partially is a question that still requires further answers. This study aims to find out the relationship between self-stigma and resilience among people living with HIV. This research used an observational research design using a cross-sectional approach. 150 HIV patients at Six Public Health Centre of Semarang City were involved in using purposive sampling techniques. The data was gathered using the Indonesian version of CD-RISC and the Indonesian version of the Self-Stigma Questionnaire. Spearman rank correlations were used to analyze the data. The health research ethics committee of the faculty of nursing at Universitas Islam Sultan Agung has approved this study as ethically appropriate. The results found a relationship between self-stigma and resilience where a p-value of  $0.006 < \alpha$  (0.05) with a contingency coefficient value of 0.222. The self-stigma and resilience have a weak correlation. Self-stigma can weaken the ability to create resilience in PLHIV, although the impact may vary depending on other factors. Nurses or health workers need to pay attention to PLHIV, who experience self-stigma, to rise and be resilient while being HIV positive.

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## Introduction

HIV (Human Immunodeficiency Virus) is a global health problem that has posed significant challenges to society. Despite efforts to improve understanding and treatment of HIV, stigma towards People Living with HIV (PLHIV) remains a significant barrier to disease management.<sup>1,2</sup> This stigma does not only come from the general public but can also originate from within the individual, known as self-stigma. Self-stigma occurs when PLHIV internalizes negative views from society and perceives themselves as worthless and sinful or blame themselves for their condition.<sup>3</sup> This self-stigma often leads to a decline in quality of life, mental health, and overall well-being.<sup>4,5</sup>

Self-stigma was found to often occur over two years from the initial diagnosis and was formed through several stages.<sup>6</sup> Self-stigma is formed through four stages: awareness, belief or self-approval, application or action, and loss.<sup>7</sup> The formation of individual awareness that HIV-AIDS is an infectious and deadly disease, belief or self-agreement that ODHIV will be ostracized, application or action to cover up their HIV status and losses characterized by the absence of opportunities for self-improvement.<sup>8</sup> Self-stigma formed in HIV patients arises because of the knowledge and negative information obtained previously.

Resilience, or the ability to bounce back from adversity and persist in challenging situations, is a crucial factor in the well-being of PLHIV.<sup>9</sup> Resilience can help individuals deal with stigma, overcome challenges associated with HIV, and stay connected to social support networks.<sup>10,11</sup> However, the relationship between self-stigma and resilience in PLHIV still needs to be fully understood. Some studies suggest that self-stigma can reduce the level of resilience.<sup>12</sup> In contrast, others have found that individuals with

solid resilience can counter the negative impact of self-stigma.<sup>13</sup>

Data from a previous study in Semarang City, Indonesia, found that 54.5% of ODHIV were found to experience moderate levels of self-stigma, where ODHIV felt insecure, and the majority had not been able to adapt well to problems that arose during the diagnosis of HIV/AIDS.<sup>14</sup> The resilience rate in a previous study in Semarang City found that 41.2% of ODHIV still had a moderate level of resilience, which means that improvement efforts are still needed.<sup>15</sup> Self-stigma can prevent PLHIV from seeking necessary care, adhering to treatment, and participating in social life. Self-stigma can also exacerbate psychological conditions such as depression and anxiety, which in turn can affect resilience.<sup>3,12</sup> Previous research has shown that resilience can be a protective barrier against various psychosocial stressors, including self-stigma.<sup>12</sup> However, there is a gap in knowledge regarding the specific mechanisms by which resilience can mitigate the impact of self-stigma on PLHIV. Whether resilience can completely neutralize the effects of self-stigma or only partially is a question that still requires further answers. To fill the research gap, our study attempts to investigate and comprehend the association between self-stigma and resilience in PLHIV.

## Materials and Methods

### Research design

This study utilized a cross-sectional design.

### Study participants

Data were collected at Six Public Health Centre, Semarang City, Central Java, Indonesia. This study used a purposive sampling technique. The Lemeshow formula calculated the sample size; a minimum sample size of 150 PLHIV would provide actual values at a 95% confidence interval (95% CI) level.<sup>16</sup> This study's inclusion criteria are HIV patients who have been diagnosed for less than a year, are willing to participate, and can read and write. Exclusion criteria include being referred to the hospital, being

uncooperative, and having cognitive impairment. All subjects provided informed consent before data collection.

### Variable, instrument, and data collection

The independent variable in this study was self-stigma, and the dependent variable was resilience. This study used a 25-item Connor Davidson Resilience Scale (CD-RISC) Indonesian Version. The CD-RISC validity test yielded an r-value ranging from 0.255 to 0.666, and the instrument had a high-reliability coefficient of 0.879. Self-Stigma Questionnaire Indonesian Version, 28 items. The Indonesian version of the questionnaire was evaluated for validity and reliability, yielding a Cronbach's alpha score of 0.769. The validity test findings yielded an r-value of 0.367–0.839. The reliability test had a Cronbach alpha of 0.955. Data collection was carried out by distributing questionnaires to respondents through online forms.

### Data analysis

Data were analyzed univariately using a frequency distribution table for each variable in the study, both dependent and independent. A bivariate analysis was performed to determine the association between the dependent and independent variables using the Spearman test with a significance level of 5%. The data was analyzed using SPSS software.

## Results

### Univariate analysis of participants demographic and variable

The average age of responders was 30.35 years, with the youngest at 26 years and the oldest at 47 years. Most responses were male, accounting for 92 (61.3%). The most common marital status among respondents is single, with 98 (65.3%). The frequency of self-stigma distribution reveals that most respondents have a high level of self-stigma, with 95 (63.3%). The frequency of resilience distribution demonstrates that the dominating respondents had a low level of resilience, with 104 (69.3%; Table 1).

**Table 1.** Participants demographic and variable description (n=150).

| Variable       | Mean±SD    | Median    | Minimum-Maximum |
|----------------|------------|-----------|-----------------|
| Age            | 30.35±4.85 | 28.00     | 26-47           |
|                | Variable   | Frequency | Percentage      |
| Gender         | Male       | 92        | 61.3            |
|                | Female     | 58        | 38.7            |
|                | Total      | 150       | 100.0           |
|                | Variable   | Frequency | Percentage      |
| Marital Status | Single     | 98        | 65.3            |
|                | Married    | 40        | 26.7            |
|                | Divorced   | 12        | 8.0             |
|                | Total      | 150       | 100.0           |
|                | Variable   | Frequency | Percentage      |
| Self-stigma    | Low        | 15        | 10.0            |
|                | Moderate   | 40        | 26.7            |
|                | High       | 95        | 63.3            |
|                | Total      | 150       | 100.0           |
|                | Variable   | Frequency | Percentage      |
| Resilience     | Low        | 104       | 69.3            |
|                | Moderate   | 9         | 6.0             |
|                | High       | 37        | 24.7            |
|                | Total      | 150       | 100.0           |

## Relationship between self-stigma and resilience

The study found a strong association between self-stigma and resilience among PLHIV (sig value = 0.006;  $p < 0.05$ ). The correlation score of 0.222 suggests the association is positive and weak (Table 2).

## Discussion

The study's results revealed a relationship between self-stigma and resilience. Self-stigma was measured using a scale that identifies the level of internalization of stigma in individuals living with HIV. In contrast, resilience was measured through a scale that assesses an individual's ability to survive and adapt to life challenges. Although a correlation was found between self-stigma and resilience, the results showed that this relationship was not very strong, indicating that other factors may play a more significant role in shaping resilience in PLHIV.

Self-stigma may affect resilience by decreasing motivation to seek help or engage in self-care, which is essential for the well-being of PLHIV.<sup>17</sup> However, there are also individuals who, despite experiencing self-stigma, still show a high level of resilience. This correlation indicates that other factors, such as social support, effective coping strategies, and life experiences, may act as protective barriers that help individuals overcome the negative impact of self-stigma.<sup>18</sup>

The results of this study show that the average age of respondents is in young adulthood. Younger ODHIV tend to have stronger self-stigma because they face more significant social pressures related to life expectations, work, and social relationships.<sup>19,20</sup> In addition, younger ODHIV may not have sufficient experience or skills to manage negative emotions or deal with discrimination effectively. However, this contradicts previous research, which found that older people were more prone to self-stigma due to the decline in physical abilities in older people.<sup>21</sup>

The research findings show that gender influences the level of self-stigma in PLHIV. There is a significant difference in self-stigma levels between male and female genders, with some studies showing that women tend to experience higher levels of self-stigma than men.<sup>22</sup> Different social and cultural factors, as well as gender roles in society, may influence an individual's self-perception of the disease and the stigmatization associated with HIV.

Marital status has an impact on self-stigma in PLHIV. Married individuals tend to experience lower levels of self-stigma than individuals who are not married or who are in unstable relationships.<sup>23,24</sup> Married people experience lower levels due to more robust emotional and social support from their spouse, which can reduce feelings of isolation and worthlessness that are often associated with the self-stigma of PLHIV. In addition, intimacy and more open communication within the marital relationship may create an environment that promotes self-acceptance and reduction of internalized HIV-related stigma.<sup>25</sup>

The relationship between self-stigma and resilience arises because self-stigma can hinder self-development and an individual's ability to overcome life's challenges. Feeling ashamed or

devalued because of the internalized stigma can reduce their self-confidence, self-esteem, and ability to bounce back from difficult situations, which is at the core of resilience.<sup>26,27</sup> Individuals with high self-stigma may feel less capable or deserving of social support, resulting in social isolation and a lack of support networks essential for building resilience. Conversely, if individuals can overcome self-stigma by developing self-acceptance, understanding their condition, and seeking social support, they can increase their resilience.<sup>28</sup>

Self-stigma, which occurs when individuals internalize HIV-related social stigma, often contributes to decreased self-confidence, feelings of shame, and social isolation. Self-stigma can hinder individuals' ability to access necessary emotional and medical support, reducing their ability to survive and adapt to life's challenges. On the other hand, resilience is the ability to bounce back from adversity and remain optimistic in the face of obstacles, which is critical for PLHIV to maintain a good quality of life.<sup>29,30</sup>

This study has various limitations because of bidirectional causation and confounding variables. Determining a direct cause-and-effect link can be difficult because many studies are cross-sectional. Furthermore, the study's sample size of only 150 respondents may be typical of the larger community of PLHIV who experience self-stigma. Given the small sample size, the study's conclusions must be more broadly applicable. Furthermore, it is possible that several variables that could influence the correlation between self-stigma and resilience—like mental health and social support—were not fully considered in this analysis, which could impact the study's internal validity.

## Conclusions

This study revealed a correlation between self-stigma and resilience among PLHIV. High self-stigma tends to be associated with lower levels of resilience, suggesting that the internalized stigma felt by PLHIV may hinder their ability to deal with the challenges and stress related to their condition. Conversely, high levels of resilience could potentially help PLHIV to cope more effectively with self-stigma, supporting them in maintaining better mental health and quality of life. We suggest that future research could benefit from adopting a longitudinal design that better assesses causality between self-stigma and resilience over time, reducing the issue of bidirectional causation. Increasing the sample size would improve the generalizability of findings to a broader population of people living with HIV (PLHIV), thus making conclusions more robust.

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**Table 2.** Relationship between self-stigma and resilience (n=150).

|             |   | Resilience |
|-------------|---|------------|
| Self-stigma | r | 0.222      |
|             | p | 0.006      |
|             | n | 150        |

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