

Resilience, Social Support, and Quality of Life Among People Living with HIV/AIDS

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Abstract

One of the most common challenges faced by people living with human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) is a low quality of life, particularly during the coronavirus disease 2019 (COVID-19) pandemic, as they are considered a vulnerable group. This study aimed to examine the relationship between resilience, social support, and quality of life among people living with HIV/AIDS during the pandemic. Conducted as a cross-sectional study, it involved 433 respondents. Data collection was carried out using a questionnaire, with Connor–Davidson Resilience Scale-25 (CD-RISC-25), Multidimensional Scale of Perceived Social Support (MSPSS), and World Health Organization Quality of Life–HIV Brief Version (WHO QoL-HIV-BREF) as the study instruments. The results indicated that resilience and social support were significantly associated with quality of life ($p = 0.000$; $p = 0.000$). Multiple logistic regression analysis identified resilience as the dominant factor influencing quality of life in people living with HIV (OR = 59.533). Respondents with high resilience were found to have a 59.53 times greater likelihood of experiencing a good quality of life compared to those with medium and low resilience after adjusting for marital status, income status, and length of time since HIV diagnosis. Resilience plays a crucial role in determining a person's quality of life. HIV patients who actively participated in foundation-based assistance demonstrated greater optimism and a more positive acceptance of their condition, enabling them to cope with difficulties better.

Keywords: HIV/AIDS, resilience, social support, quality of life

Abstrak

Resiliensi, Dukungan Sosial, dan Kualitas Hidup Penderita HIV/AIDS. Salah satu tantangan yang paling umum dihadapi oleh penderita HIV/AIDS adalah rendahnya kualitas hidup, terutama saat pandemi COVID-19, karena mereka termasuk dalam kelompok rentan. Penelitian ini bertujuan untuk menguji hubungan antara resiliensi, dukungan sosial, dan kualitas hidup pada orang dengan HIV/AIDS di masa pandemi. Penelitian ini merupakan penelitian cross-sectional yang melibatkan 433 responden. Pengumpulan data dilakukan dengan menggunakan kuesioner Connor–Davidson Resilience Scale-25 (CD-RISC-25), Multidimensional Scale of Perceived Social Support (MSPSS), dan World Health Organization Quality of Life–HIV Brief Version (WHO QoL-HIV-BREF) sebagai instrument penelitian. Hasil penelitian menunjukkan bahwa resiliensi dan dukungan sosial memiliki hubungan yang signifikan dengan kualitas hidup ($p = 0,000$; $p = 0,000$). Analisis regresi logistik berganda menunjukkan bahwa resiliensi merupakan faktor dominan yang memengaruhi kualitas hidup orang dengan HIV (OR = 59,533). Responden dengan resiliensi tinggi memiliki kemungkinan 59,53 kali lebih besar untuk memiliki kualitas hidup yang baik dibandingkan dengan responden dengan resiliensi sedang dan rendah, setelah mempertimbangkan status perkawinan, pendapatan, dan durasi sejak didiagnosa HIV. Resiliensi berperan penting terhadap kualitas hidup seseorang. Pasien HIV yang terlibat aktif dalam mengikuti pendampingan berbasis lembaga menunjukkan sikap yang lebih optimis dan penerimaan yang lebih positif terhadap kondisi mereka, sehingga membuat mereka mampu menghadapi tantangan dengan lebih baik.

Kata Kunci: dukungan sosial, HIV/AIDS, kualitas hidup, resiliensi

Introduction

Human immunodeficiency virus (HIV) is an in-

fectious disease that attacks and weakens the human immune system (Centers for Disease Control and Prevention [CDC], 2016). During

the pandemic, people faced significant challenges, and healthcare providers struggled with new regulations, including restrictions on community activities and isolation (*Pemberlakuan Pembatasan Kegiatan Masyarakat [PPKM]*, in 2020). People living with HIV/acquired immune deficiency syndrome (AIDS) (PLWHA) often encountered obstacles and limitations in accessing healthcare services during this period. In addition, PLWHA experienced stress and anxiety due to fears of contracting COVID-19 (Dorward et al., 2021), which was further intensified by the stigma they faced, leading to a decline in their quality of life (MacLean & Wetherall, 2021; Prabhu et al., 2020; Tam et al., 2021).

Since its discovery, HIV has remained a global health issue that has yet to be resolved. According to a report from The Joint United Nations Program on HIV/AIDS (UNAIDS, 2021), the cumulative number of HIV/AIDS cases has reached 37.7 million, with approximately 680,000 to 1 million deaths occurring in 2021 due to HIV/AIDS. Meanwhile, a report from the Ministry of Health Republic Indonesia (2021) stated that in East Java, 77 people with HIV had been exposed to COVID-19; of these, 33 were declared cured, 36 remained under treatment, and eight were confirmed dead. People with HIV may face a higher risk of COVID-19 exposure due to their weakened immune systems (World Health Organization [WHO], 2021).

According to Tam et al. (2021), due to the COVID-19 pandemic, approximately 23.2% of PLWHA experienced anxiety, 33.4% faced severe distress, and 22.8% suffered from depression. Similarly, MacLean and Wetherall (2021) reported that the quality of life for PLWHA declined during the COVID-19 pandemic due to the stress and stigma they experienced (Dida et al., 2021). Because of their weakened immune systems, PLWHA are highly susceptible to illnesses, particularly those affecting both physical and psychological health (Putera et al., 2020).

Likewise, a study conducted by Zhou et al. (2017)

found that the COVID-19 pandemic had a psychological impact, leading to a decline in the quality of life for people living with HIV (PLHIV). The quality of life among PLWHA is influenced by several factors, including age, education level, employment status, monthly income, social support, spiritual well-being, coping mechanisms, and adaptation processes (Wani, 2020; Yang et al., 2016).

Apart from that, in dealing with these various changes and problems, PLWHA need social support—not only from their families but also from friends, healthcare workers, and others. Such support plays a crucial role in helping individuals with HIV/AIDS navigate difficult times and positively impacts both their physical and psychological health (Firman et al., 2022; Oladunni et al., 2021).

This is in line with research by Rzeszutek (2018), who found that the social support received and perceived by PLWHA fosters feelings of care, assistance, and appreciation. These conditions, in turn, boost motivation and optimism, encouraging individuals to use all available resources to overcome the difficulties they face. Other studies also highlight that social support has a significant relationship with the quality of life of PLWHA (Oladunni et al., 2021).

A study conducted by Safren et al. (2021) on 250 people with HIV in Africa showed that social support among respondents was low (71.4%), while 62.7% exhibited symptoms of stress. In addition, a study by Wani and Sankar (2017) explored the relationship between social support and quality of life among 170 respondents. The findings revealed that 80.33% of respondents had low social support, 24% had a very low quality of life, and 73.33% experienced suicidal ideation.

Based on these findings, social support plays an important role in determining quality of life. When social support is perceived as low, the quality of life also tends to be lower, and there

is an increase in suicidal ideation. However, research by Rosnaini et al. (2021) found that social support had no significant effect on the quality of life of PLHIV.

Therefore, this study aimed to examine the relationship between resilience, social support, and quality of life among PLWHA during the pandemic. This research provided important insights into both the advancement of scientific knowledge and healthcare services by highlighting the impact of resilience and social support on the quality of life of HIV patients.

Methods

This cross-sectional study focused on a single time-point measurement and included demographic data collected through a questionnaire, independent variable data (resilience and social support), and the dependent variable (quality of life). The study was conducted at the Mahameru Community, a foundation that supports all HIV patients in Surabaya. A total of 433 PLWHA participated as study samples. Participants were selected using convenience sampling based on specific inclusion criteria.

The inclusion criteria for this study were as follows: individuals diagnosed as HIV-positive for at least one month and individuals older than 18 years (classified as adults with HIV). The exclusion criteria included individuals who were illiterate.

Four instruments were applied in this study. First, a demographic questionnaire collected data on age, gender, education, occupation, marital status, personal income, and length of time since HIV diagnosis. Second, to measure resilience, the study adopted the Connor–Davidson Resilience Scale (CD-RISC-25), an instrument developed by Kuiper et al. (2019). A trial of this resilience instrument demonstrated good validity, with a coefficient value of $r = 0.380–0.811$ and a Cronbach's alpha of 0.917. Third, to measure social support, we used the Multi-dimensional Scale of Perceived Social Support

(MSPSS), an instrument developed by Wallace et al. (2019). The validity test showed strong reliability, with a coefficient value of $r = 0.409–0.845$ and a Cronbach's alpha of 0.886. Fourth, we adopted the World Health Organization Quality of Life-HIV Brief (WHO QoL-HIV-BREF) to measure the quality of life. The instrument demonstrated good validity, with a coefficient value of $r = 0.457–0.880$ and a Cronbach's alpha of 0.955.

All questionnaires were used in the Indonesian version with a Likert scale. The resilience and social support questionnaires categorized responses into three levels, namely, low, medium, and high, while the quality-of-life questionnaire classified responses into two categories: good and bad. Data collection took place over two months.

Each participant was provided with a private room in Surabaya and given sufficient time to complete the questionnaire voluntarily, with an average completion time between 10–15 minutes per participant. Participants were also given the opportunity to ask questions regarding the questionnaire, and their responses were reviewed to ensure all questions had been answered. The researchers and participants strictly adhered to safety protocols, including wearing masks correctly throughout the data collection process.

The data were analyzed using SPSS-25. Before performing the analysis, distribution plots were examined for each variable to assess normality. The analysis confirmed that all studied variables followed a normal distribution. Demographic characteristics were analyzed using descriptive statistics, while bivariate analysis was performed using the chi-square test. Multiple logistic regression was applied for multivariate analysis.

Ethical Considerations. This study was reviewed and approved by the Commission of Ethics of the Faculty of Nursing, Universitas Indonesia, under ethics review approval number KET-

130/UN2.F12.D1.2.1/PPM.00.02/2022.

The researchers provided participants with detailed information about the study objectives, procedures, and their rights. All participants signed an informed consent form before taking part in the study.

Results

The majority of respondents were between 26–35 years old (39.8%), male (69.2%), and employed (42.1%). Most had a junior high school education (36.8%) and were unmarried (45.1%). Regarding income levels, 32.2% earned < IDR 1,000,000. Moreover, based on the length of time since their HIV diagnosis, the majority had

been diagnosed for 5–6 years (39.1%) (Table 1). Most respondents had high resilience (51.9%), high social support (77.4%), and good quality of life (69.2%) (Table 2).

The results of the relationship analysis in Table 3 indicate a significant relationship between the level of resilience and the quality of life of PLWHA. Specifically, individuals with high resilience were more likely to have a high or good quality of life, as evidenced by the statistical value ($p = 0.000 < \alpha = 0.05$). Among respondents with high resilience, 92.8% reported a good quality of life, while only 7.2% experienced a low quality of life. These findings suggest that resilience plays a crucial role in influencing the quality of life of people with HIV/AIDS.

Table 1. Demographics of Respondents

Variable	n	%
Age		
17–25 years old (late teens)	85	7.5
26–35 years old (early adulthood)	128	39.8
36–45 years old (late adulthood)	122	35.3
46–55 years old (early seniors)	98	17.3
Gender		
Male	242	69.2
Female	191	30.8
Occupation		
Employee	131	42.1
Trader	97	19.5
Unemployed	115	27.8
Housewife	93	13.5
Education		
Elementary school	93	13.5
Junior high school	124	36.8
Senior high school	121	34.5
Bachelor	95	15
Marital status		
Married	138	28.5
Never married	160	45.1
Widow/widower	135	26.3
IDR Income Level		
< 1,000,000	118	32.2
1,000,000–1,500,000	104	21.8
> 1,500,000–3,000,000	115	30
> 3,000,000	96	15.7
Time Since HIV Diagnosis		
< 1 year	83	6
2–4 years	108	24.8
5–6 years	127	39.1
> 6 years	115	30.1

Table 2. Distribution of Respondents Based on Resilience at Surabaya

Variable	Category	n	%
Resilience	High	169	51.9
	Medium	151	38.3
	Low	113	9.8
Social Support	High	203	77.4
	Medium	117	12.8
	Low	113	9.8
Quality of Life	Bad	191	30.8
	Good	242	69.2

Table 3. Relationship between Resilience and Quality of Life of People Living with HIV/AIDS at Surabaya

Variable	Quality of Life				p
	Good		Bad		
	n	%	n	%	
Resilience					
High	114	92.8	55	7.2	0.000*
Medium	75	49	76	51	
Low	53	23.1	60	76.9	

*p = < α : 0.05

Table 4. Relationship between Social Support and Quality of Life of People with HIV/AIDS at Surabaya

Variable	Quality of Life				p
	Good		Bad		
	n	%	n	%	
Social Support					
High	132	79.6	71	20.4	0.000*
Medium	56	35.3	61	64.7	
Low	54	30.8	59	69.2	

*p = < α : 0.05

Table 4 demonstrates a significant relationship between social support and the quality of life of PLWHA ($p = 0.000 < \alpha = 0.05$). Among respondents with high social support, 79.6% reported a good quality of life, while 20.4% had a low quality of life. Conversely, among those with low social support, only 30.8% reported a good quality of life, whereas 69.2% experienced a low quality of life. These findings confirm that social support has a meaningful impact on the quality of life of people with HIV/AIDS.

These results indicate that resilience is the dominant factor affecting the quality of life of respondents, as it has the highest odds ratio (OR

= 59.533). Based on the results of this model (Table 5), it can be concluded that respondents with high resilience are 59.53 times more likely to have a good quality of life compared to those with low resilience, even after controlling for marital status, income level, and the length of time since their HIV diagnosis (OR 95% CI: 7.002–504.730).

Discussion

The results of the analysis indicate a significant relationship between resilience levels and the quality of life of PLWHA. The higher the resilience perceived by respondents, the better their

Table 5. Final Model of the Results of Multivariate Analysis in the Relationship between Resilience and Social Support with Quality of Life of People with HIV/AIDS

Variable	p	OR	(95% CI)
Resilience	0.000*	59.533	(7.002–504.730)
Social support	0.011*	32.421	(4.103–273.102)
Marital status	0.020*	14.211	(1.507–134.007)
Income Level	0.001*	10.787	(2.701–430.69)
Long HIV Diagnosis	0.019*	26.962	(1.398–520.112)
Constant	0.000	0.000	

* $p < \alpha: 0.05$

quality of life, as evidenced by the statistical value ($p = 0.000 < \alpha = 0.05$). These findings align with previous research by Asdiwinata et al. (2021), which also identified a relationship between resilience and quality of life ($p = 0.000$). The correlation strength was moderate, with a coefficient of 0.785, and the direction of the correlation was positive or unidirectional, which means that higher resilience is associated with a better quality of life.

Tam et al. (2021) reported that resilience is a strength developed and trained by individuals to help them navigate difficult situations and sustain themselves through adversity. Similarly, Kuiper et al. (2019) stated that an individual's resilience is influenced by their environment and the support he gets. Resilience cannot be separated from the role of external support and the surrounding environment. This aligns with the context of the respondents in this study, who were members of a supportive community of PLHIV. In this community, individuals not only receive material support but also share experiences with fellow PLWHA, enabling them to endure challenges and maintain their well-being despite difficult health conditions.

PLWHA who join a community can develop positive aspects while building adaptive coping mechanisms. The interaction processes within the foundation are directed toward strengthening individuals as PLWHA, and the education they obtain helps transform unhealthy behaviors into healthier ones. As explained by Kuiper et al. (2019), one form of adaptive coping is

positive acceptance and adaptability to changing conditions, as well as the adaptability to establish good relationships with others. The adaptability of PLWHA to changes in both physical and environmental conditions enhances their resilience. Furthermore, overcoming past problems strengthens their ability and confidence to overcome future difficulties. This, in turn, fosters a sense of self-satisfaction, positively impacting their physical, psychological, and social well-being.

The findings also revealed a significant relationship between social support and quality of life ($p = 0.000 < \alpha = 0.05$) among PLWHA. These results are in line with Wani's study (2020), which found that social support influences quality of life. This means that individuals with higher social support tend to experience a better quality of life. Similarly, several studies have demonstrated that social support plays a crucial role in improving quality of life (Kurniawan et al., 2021; Martiana et al., 2021; Oladunni et al., 2021).

In general, PLWHA not only face health challenges due to the virus attacking their immune system but also endure stigma and discrimination. As noted by Sari and Wardani (2017), individuals with HIV are often stigmatized because of the virus that infects them. PLWHA are frequently labeled as people who engage in casual sex, as promiscuous women, or as individuals involved in deviant social circles. As a result, many choose to keep their health status a secret from family, friends, and close relatives

(Safitri, 2020). These conditions negatively impact their quality of life (Edianto et al., 2020).

Therefore, social support plays a crucial role in improving the well-being of PLWHA. Wani and Sankar (2017) emphasized that when social support is low, the quality of life also declines. Furthermore, their study revealed that around 73.33% of respondents experiencing low social support reported having suicidal thoughts. This underscores the importance of fostering strong social support networks for individuals living with HIV/AIDS.

In this study, respondents tended to have high social support because they were actively involved in the foundation's activities. Through this involvement, they received substantial support from both fellow PLWH and the foundation's management officers. As stated by Wu et al. (2015), social support is vital in reducing stress symptoms, ultimately contributing to a better quality of life.

This is in line with previous studies by Shoimatul et al. (2022), which highlighted that when stress and anxiety are well managed, quality of life improves. Similarly, research by Hayati et al. (2023) and Yona et al. (2023) showed that strong social support—particularly through family presence and peer acceptance—can help prevent risky sexual behavior and the use of illegal drugs among PLHIV. Wallace et al. (2019) further explained that social support serves as a form of acceptance from one's environment, fostering feelings of care, assistance, and love.

Resilience has an important role in a person's quality of life, particularly for PLWHA, who face various challenges in their daily lives due to their condition. Therefore, they need the ability to adapt effectively. According to Rzeszutek (2018), high resilience affects all dimensions of a person's quality of life. Resilience is also one of the key factors in maintaining health, even in unfavorable environmental conditions. As explained by Tam et al. (2021), individuals with resilience demonstrate their ability to modify

their environment to promote better health. One aspect of quality of life is satisfaction with one's living environment (WHO, 2021).

Individuals with high resilience have the ability to grow stronger even after experiencing adversity. Resilience allows individuals to transform difficult or unpleasant situations into manageable ones (Hayati et al., 2023). A resilient person is also characterized by the ability to rise from negative circumstances to positive ones. According to Wenger et al. (2021), resilient individuals actively confront their problems and quickly recover from setbacks using their existing abilities.

Furthermore, individuals with high resilience tend to experience positive emotions derived from hope and personal satisfaction related to overcoming their problems (Tansey et al., 2016). Life satisfaction is an essential dimension in perceiving a better quality of life. In addition, resilience can help reduce stress symptoms, as positive emotions lead to feelings of satisfaction and happiness, which ultimately enhance quality of life (Asdiwinata et al., 2021). This finding supports the idea that PLWHA are capable of developing adaptive coping mechanisms. Roy's adaptation theory views individuals as adaptation systems, with the goal of helping them adapt and improve their health by changing maladaptive behaviors into adaptive ones (Jennings, 2017).

The study was conducted during the pandemic, which made it difficult to find respondents. Therefore, data collection was carried out separately, mostly through NGOs, while some respondents were visited directly with the help of research assistants at predetermined locations. Convenience sampling was used for participant selection. Since research assistants conducted data collection during visits, the researchers were unable to monitor respondents directly as they completed the questionnaire. To minimize bias, research assistants were asked to take photo documentation, with the respondents' permission, while they filled out the questionnaire.

However, the documentation did not include any identifying details, such as faces.

Conclusion

Resilience and social support have a significant relationship with quality of life. Among these factors, resilience is the most dominant variable influencing quality of life. Respondents with high resilience were 59.53 times more likely to have a good quality of life compared to those with medium or low resilience, even after controlling for marital status, income level, and length of time since HIV diagnosis.

Resilience plays a crucial role in improving the quality of life for PLWHA. HIV patients who actively participate in support programs within foundations develop stronger resilience by cultivating an optimistic mindset and positively accepting their condition. This resilience enables them to better navigate difficulties, ultimately leading to an improved quality of life. Moreover, when providing healthcare services to PLHIV, marital status, income level, and length of time since HIV diagnosis should be considered as key factors influencing their well-being. To enhance their quality of life, it is essential for PLWHA to cultivate high resilience, which can be achieved through active participation in peer-support activities in the community.

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