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Wardani E. M.[1, 3], Yusuf A.[2], Nugroho R. F.[4],
Setiyowati E.[3], Septianingrum Y.[3]

The implementation of self-help group (SHG) therapy on anxiety, stress and depression levels in MSM with HIV

[1] Doctoral Student of Nursing, Faculty of Nursing, Universitas Airlangga, 60115 Surabaya, East Java, Indonesia
[2] Faculty of Nursing, Universitas Airlangga, 60115 Surabaya, East Java, Indonesia
[3] Department of Nursing, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya, 60237 Surabaya, East Java, Indonesia
[4] Department of Nutrition, Politeknik Kesehatan Kemenkes Surabaya, 60282 Surabaya, East Java Indonesia

Вардані Е. М.[1, 3], Юсуф А.[2], Нугрохо Р. Ф.[4],
Сетійовати Е.[3], Септіанінгрум Ю.[3]

Вплив терапії у групах самодопомоги (ГСД) на рівень тривожності, стресу та депресії серед чоловіків, які мають секс із чоловіками та живуть із ВІЛ

[1] Докторська програма з медсестринства, факультет медсестринства, Університет Airlangga, Сурабая, Індонезія
[2] Факультет медсестринства, Університет Airlangga, Сурабая, Індонезія
[3] Кафедра медсестринства, факультет медсестринства та акушерства, Університет Nahdlatul Ulama Surabaya, Сурабая, Індонезія
[4] Кафедра нутриціології, Політехнічний інститут охорони здоров'я Міністерства охорони здоров'я Сурабаї, Сурабая, Індонезія

erika@unusa.ac.id

Introduction

The challenge of overcoming HIV/AIDS today is getting harder with the increasing prevalence of HIV/AIDS cases from year to year in Indonesia. Of course this can endanger human life in this country because HIV/AIDS is a deadly disease and there is no definite cure [1]. Human Immunodeficiency Virus (HIV) is a virus that attacks white blood cells, causing the immune system or body's resistance to decrease, although the person can transmit it to others through sexual intercourse or injection needles [2; 3].

Based on UNAIDS data in 2024, Indonesia ranks fourth with the highest number of HIV cases in Asia Pacific after Timor Leste, Thailand and Cambodia. In 2002–2023, the prevalence of HIV in the man who man (MSM) group was dominated by young people, which was 32% [4]. The prevalence of HIV in the majority of cases was found in patients with a homosexual orientation (MSM) at 62.5% and around 73.6% of cases had positive HIV status [5]. HIV sufferers in East Java who have just been diagnosed as HIV positive are 10.671 people [6]. Surabaya City is the city with the highest number of HIV positive cases, with 1.260 cases [7]. Based on data obtained from the Mahameru Foundation of Surabaya City, there were 274 HIV positives recorded in 2024 and 240 MSM had HIV positive status [8].

Looking at the distribution data, it is clear that the spread of HIV/AIDS in Surabaya City is very high, but the spread of HIV/AIDS in society is like an iceberg phenomenon. Problems that tend to occur in the MSM group with HIV are physical problems and psychological problems [9]. MSM with HIV who experience anxiety, stress, and even depression can occur due to physical problems and have a direct impact on immune function which is indicated by a decrease in the number of white blood cells or CD4+ [10]. The course of the HIV virus requires a long incubation period until clinical signs of AIDS appear. HIV sufferers during the incubation period experience a decrease in the immune system [11]. As the disease progresses, HIV sufferers are often faced with physical, psychosocial, psychological and mental problems [12]. Physical changes in the form of weight loss, itchy and darkening skin can lead to psychological stress, such as feelings of shame and depression [13]. Socially, HIV sufferers tend to withdraw and keep their illness a secret from their family and environment because they are afraid of being rejected [14]. These stressors will affect each other which must be faced every day and throughout life [15].

MSM with HIV who have good self-acceptance are able to grow new hopes for life, are able to socialize with the environment and are able to prepare for a quality future and undergo lifelong treatment. However, if MSM with HIV have low self-acceptance, they often have uncertainty in accepting the fact that they are infected with HIV [16]. MSM with HIV who experience repeated anxiety and pessimism about getting healthy again, this condition becomes a severe stage which often gives rise to depression and even suicidal thoughts slowly [17].

One of the efforts to reduce the impact is to conduct therapy for HIV sufferers with self-help groups

or Self Help Groups (SHG). Self Help Group is a group or peer where each member shares problems, both physical and emotional, or certain issues. Self Help Group aims to develop empathy among fellow group members where they provide mutual reinforcement to form adaptive coping and help overcome their problems which are resolved together in the group [18].

The purpose of the research is to evaluate the effectiveness of Self-Help Group (SHG) therapy as a psychosocial intervention in reducing anxiety, stress, and depression among men who have sex with men (MSM) living with HIV.

Object, materials and research methods

General Background of Research

This type of research is quantitative. The research method uses a quasi-experimental design with a pre-experimental design using a pre-test and post-test design.

Sample of Research

This study has a population of 240 LSL with HIV who were diagnosed as HIV positive in the city of Surabaya, Indonesia from January to May 2025 with a sample of 150 respondents using a purposive sampling technique.

Instrument and Procedures

The instruments used in this study were the Depression Anxiety Stress Scales (DASS) questionnaire and the medication adherence questionnaire. The DASS is a self-assessment scale that measures a person's negative emotional states, such as stress, anxiety, and depression [19]. The research procedure is to distribute questionnaires to respondents who are willing to be research subjects.

The implementation SHG was carried out for one month at the same intensity for ten to fifteen minutes. SHG implementation stages:

1. Forming Stage

a. Selecting and recruiting group members with the same problem or goal.

b. Determining the goals, group rules, meeting frequency, and methods used.

c. Introducing the facilitator (can be a professional or a trained volunteer).

2. Orientation Stage

a. Members get to know each other and create a safe and comfortable atmosphere.

b. Explanation of member roles, meeting structure, and group expectations.

c. Establishing shared norms and commitments such as confidentiality.

3. Active Participation Stage

a. Members begin to share experiences, feelings, and support each other.

b. Discussions are directed to focus on solutions and coping mechanisms.

c. There is a process of mutual learning through each other's experiences (peer support).

d. The facilitator acts as a mediator and motivator, not as the main director.

4. Norming Stage

a. The group becomes more stable and cohesive.

b. Members feel ownership of the group and solidarity emerges.

c. Interactions become more open and honest.

5. Evaluation & Reflection Stage

a. Assess the results achieved individually and in groups.

b. Reflect on changes in attitudes, behaviors, and coping skills.

c. Evaluate the effectiveness of the methods or activities carried out.

6. Termination Stage (Closing)

a. Done if the group's goals have been achieved or according to the specified time.

b. A separation process is carried out while maintaining informal networks between members.

c. Emphasis is placed on the continuity of change and personal strengthening outside the group [20].

The collected data is then analyzed and interpreted so that the analysis's findings can be used to make decisions about future issues. The primary data collection method in this study was a pre- and post-test, respectively, administered prior to and following SHG therapy, respectively.

Data Analysis

The next step is to analyze the data after it has been processed. The statistical Wilcoxon test is the desired type of analysis using the Windows program and SPSS 25, with a significant level of 0.05. The Ethics Commission of Universitas Nahdlatul Ulama Surabaya issued No. 0678/EC/KEPK/UNUSA/2025, certifying that this study met all ethical standards.

Research results

1. Demographic data (Table 1, 2).

Based on the table above, by using the Wilcoxon Signed Rank tests, it can be concluded that there is a significant difference in the level of anxiety, stress and depression between the pretest and post-test (p value = 0.000 < 0.05), which means there is an effect of SHG on anxiety, stress and depression level.

Discussion of research results

Based on the results of the study, the majority of MSM with HV were aged 25–49 years old with primary high school education and single status. They have high levels of anxiety, stress and depression. The results of the statistical test showed that there was an effect of SHG on anxiety, stress and depression levels in MSM with HIV.

SHGs formed by or for MSM with HIV play a very strategic role in the physical, psychological, and social recovery process for their members. One of the main foundations of the effectiveness of these groups is the social support provided reciprocally between members. In the context of HIV patients, social support is not only a source of emotional strength, but also plays a role in increasing adherence to treatment, reducing stigma, and encouraging a better quality of life [21].

Table 1

Demographic data LSL with HIV (n=150)

No	Variable	Group	
		Intervention (%)	Control (%)
1.	Age (Years)		
	15–19	8 (10.67%)	10 (1.33%)
	20–24	22 (29.3%)	20 (26.7%)
	25–49	35 (46.7%)	34 (45.3%)
	More than 50	10 (1.33%)	11 (14.7%)
2.	Level of education		
	Not educated	16 (21.3%)	8 (10.7%)
	Elementary school	18 (24%)	22 (29.3%)
	Primary high school	23 (30.7%)	22 (29.3%)
	Academy	18 (24%)	10 (1.33%)
3.	Marital status		
	Single	53 (70.7%)	44 (58.7%)
	Married	22 (29.3%)	31 (41.3%)
4.	Time of illness (Years)		
	Less than 5	46 (61.3%)	22 (29.3%)
	More than 5	29 (38.7%)	53 (70.7%)
5.	Therapy duration (Years)		
	Less than 6	48 (64.0%)	47 (62.7 %)
	More than 6	27 (36.0%)	28 (37.3 %)
6.	History of alcohol		
	Yes	33 (44%)	30 (40%)
	No	42 (56%)	45 (60%)
7.	Anxiety level		
	Normal	12 (16%)	13 (17.3%)
	Mild	19 (25.3%)	17 (22.7%)
	Medium	44 (58.7%)	45 (60%)
8.	Stress level		
	Normal	11 (14.7%)	9 (12%)
	Mild	19 (25.3%)	17 (22.7%)
	Medium	45 (60%)	49 (65.3%)
9.	Depression level		
	Normal	3 (4%)	6 (8%)
	Mild	19 (25.3%)	17 (22.7%)
	Medium	53 (70.7%)	52 (69.3%)

Table 2

Effect of SHG on anxiety, stress and depression level (n=150)

	N	Mean	SD	Min	Max	P value	
						Pretest	Post-test
Anxiety level							
Pretest	75	13.29	3.54	17.00	33.09	0.000	
Post-test	75	7.59	3.47				0.000
Stress level							
Pretest	75	12.28	3,26	23,00	52,03	0.000	
Post-test	75	9.58	3.15				0.000
Depression level							
Pretest	75	17.21	2.83	14.00	24.00	0.000	
Post-test	75	5.39	2.76				0.000

Social support in SHGs generally comes in three main forms: emotional, instrumental, and informational. Emotional support includes providing a sense of security, acceptance, and empathy for fellow members who often experience discrimination and social rejection [22]. This supportive environment provides a safe space for MSM with HIV to express their feelings without fear of being judged. In many cases, involvement in SHGs provides a sense of empowerment and reduces the risk of depression, anxiety, stress, and social isolation [23].

Instrumental support refers to direct assistance such as assistance in accessing health services, reminders to take antiretroviral (ARV) drugs, and logistical assistance such as basic necessities or transportation to medical facilities [24]. This type of support is very important, especially for members who face economic difficulties or barriers to accessing health services. The presence of other members who are willing to help in real terms shows solidarity in action, not just talk [25].

Meanwhile, informational support is often provided through group discussions, peer counseling, training, or education on HIV management, drug side effects, nutrition, and transmission prevention. Sharing experiences of living with HIV openly encourages members to better understand their condition and develop healthy living strategies. Information obtained from fellow MSM with HIV tends to be more easily accepted because it is delivered with an empathetic and contextually relevant approach [26].

In addition to direct benefits, involvement in SHGs also strengthens individual and community resilience. MSM with HIV who are members of groups tend to be more optimistic, have a high life expectancy, and show increased social participation. Positive interactions built within the group help reduce internalized stigma which is often a major obstacle in the recovery process. Conversely, without adequate social support, MSM with HIV are at risk of social isolation, decreased adherence to treatment, and decreased quality of life [27].

SHG research shows that MSM with HIV who receive social support from peer groups show higher levels of ARV adherence and have a better quality of life compared to MSM with HIV who are not members of groups. This proves that the role of SHG is not only social, but also has a direct impact on the physical health of its members.

Limitation

Social support in SHGs also faces challenges, especially in terms of program sustainability, limited resources, and stigma from the external environment. In addition, not all MSM with HIV have the confidence to be actively involved in groups due to deep social trauma. Therefore, support is needed from various parties such as health institutions, NGOs, and the government to strengthen the capacity of SHGs and ensure the sustainability and inclusiveness of the group.

Prospects for further research

Future studies should include larger sample sizes and participants from multiple settings to increase the external validity of the findings. Long-term follow-up is needed to determine the sustainability of SHG therapy outcomes on psychological well-being and treatment adherence. Further research is also recommended to assess the effects of SHG therapy on clinical outcomes, including CD4 counts, viral load suppression, and quality of life among MSM living with HIV.

Conclusions

Based on the research results, SHG is effective as a psychosocial approach for MSM with HIV. This intervention can reduce levels of anxiety, stress, and depression by building emotional support networks, increasing self-confidence, and encouraging self-acceptance. It is hoped that nurses and health workers can integrate SHG into comprehensive services for MSM with HIV, by facilitating peer-support on an ongoing basis.

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The challenge of overcoming HIV/AIDS is getting harder with the increasing prevalence in Indonesia. Self Help Group aims to develop empathy among fellow group members where they provide mutual reinforcement to form adaptive coping and help overcome their problems which are solved together in the group.

The purpose of the research is to analyze the effect of SHG therapy on anxiety, stress, and depression levels among MSM living with HIV in Surabaya, Indonesia.

Materials and Methods. A quasi-experimental pre-test and post-test control group design was conducted among 150 MSM living with HIV selected from a population of 240 individuals in Surabaya, Indonesia. Anxiety, stress, and depression were measured using the Depression Anxiety Stress Scale (DASS-21). SHG therapy was implemented for one month through structured peer-support sessions. Data were analyzed using the Wilcoxon Signed Rank Test with a significance level of $p < 0.05$.

Results. Most respondents were aged 25–49 years and experienced moderate anxiety, stress, and depression before the intervention. SHG therapy significantly reduced anxiety (13.29 to 7.59), stress (12.28 to 9.58), and depression (17.21 to 5.39). The results of the Wilcoxon statistical test obtained $p = 0.000$ which showed a significant difference between the treatment group and the control group.

Conclusions. SHG therapy effectively improved psychological well-being by providing emotional, informational, and instrumental support. Future studies should include larger populations and assess long-term outcomes. SHG therapy can be recommended as an effective psychosocial intervention for MSM living with HIV.

Key words: SHG, anxiety, stress, depression.

Подолання проблем, пов'язаних із ВІЛ/СНІД, стає дедалі складнішим у зв'язку зі зростанням поширеності ВІЛ в Індонезії. Метою груп самодопомоги є розвиток емпатії між учасниками, в яких вони надають одне одному підтримку для формування адаптивних стратегій подолання труднощів і спільного розв'язання проблем у межах цієї групи.

Мета дослідження – проаналізувати вплив терапії у групах самодопомоги на рівень тривожності, стресу та депресії серед чоловіків, які мають секс із чоловіками (ЧСЧ) та живуть із ВІЛ, у місті Сурабая, Індонезія.

Матеріали та методи. Дослідження проведено за квазіекспериментальним дизайном із вимірюваннями до та після втручання в контрольній групі. У ньому взяли участь 150 чоловіків, які мають секс із чоловіками та живуть із ВІЛ, відібраних із популяції чисельністю 240 осіб у місті Сурабая, Індонезія. Рівень тривожності, стресу та депресії оцінювали за допомогою шкали депресії, тривожності та стресу (Depression Anxiety Stress Scale, DASS-21). Терапію у групах самодопомоги проводили протягом одного місяця у форматі структурованих сесій взаємної підтримки. Дані аналізувалися за допомогою критерію знакових рангів Вілкоксона за рівня статистичної значущості $p < 0,05$.

Результати. Більшість респондентів були віком від 25 до 49 років і до початку втручання мали помірний рівень тривожності, стресу та депресії. Терапія у групах самодопомоги статистично значуще знизила рівень тривожності (з 13,29 до 7,59), стресу (з 12,28 до 9,58) і депресії (з 17,21 до 5,39). За результатами статистичного тесту Вілкоксона отримано значення $p = 0,000$, що свідчило про статистично значущу різницю між групою втручання та контрольною групою.

Висновки. Терапія у групах самодопомоги сприяла покращенню психологічного благополуччя завдяки емоційній, інформаційній та практичній підтримці. У подальших дослідженнях доцільно залучати більші вибірки та оцінювати довгострокові результати. Терапію у групах самодопомоги можна рекомендувати як ефективне психосоціальне втручання для чоловіків, які мають секс із чоловіками та живуть із ВІЛ.

Ключові слова: групи самодопомоги, тривожність, стрес, депресія.

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Information about the authors

Wardani Erika Martining – Doctoral Student of the Department of Nursing of Universitas Airlangga, Lecturer at the Department of Nursing, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya; Jl. SMEA No. 57, Surabaya, East Java, Indonesia, 60237.
erika@unusa.ac.id, ORCID ID: 0000-0002-0178-0024 [A, B, D, F]

Yusuf Ah – Professor at the Faculty of Nursing, Universitas Airlangga, 60115 Surabaya, East Java, Indonesia.
ah-yusuf@fkp.unair.ac.id, ORCID ID: 0000-0002-6669-0767 [E, F]

Nugroho Riezky Faisal – Master of Nutrition, Lecturer at the Department of Nutrition, Politeknik Kesehatan Kemenkes Surabaya; Jl. Pucang Jajar Tengah No. 56, Surabaya, East Java, Indonesia, 60282.
riifan7@gmail.com, ORCID ID: 0000-0001-9622-6757 [A, E, F]

Setiyowati Eppy – Doctor of Public Health, Lecturer at the Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya; Jl. SMEA No. 57, Surabaya, East Java, Indonesia, 60237.
eppy@unusa.ac.id, ORCID ID 0000-0001-9930-6218 [B, F]

Septianingrum Yurike – Doctor of Nursing, Lecturer at the Department of Nursing, Faculty of Nursing and Midwifery, Universitas Nahdlatul Ulama Surabaya; Jl. SMEA No. 57, Surabaya, Surabaya, East Java, Indonesia, 60237.
yurikesepti1209@unusa.ac.id, ORCID ID: 0000-0002-7206-6389 [C, E]

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