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Review

Community-led interventions for HIV and AIDS prevention, treatment, and care in Southern Africa: a scoping review

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Abstract

Background Over the past few decades, significant progress has been made in containing the HIV epidemic worldwide. A few countries, primarily in Southern Africa, have met the UNAIDS 95-95-95 goals. However, this does not warrant complacency. The contribution of communities to these gains is immeasurable. Therefore, there is a need to sustain and expand the involvement of communities in the testing, prevention, and treatment of HIV.
Aim This study aims to assess the scope and outcomes of community-led HIV interventions conducted in Southern Africa.
Study design This study followed a scoping review design.
Data sources PubMed, ScienceDirect, SCOPUS, Google Scholar, and Africa Journals Online (AJOL) databases were searched for peer-reviewed articles published in English between 2013 and 2023.
Methodology The scoping review was guided by the Joanna Briggs Institute methodology for scoping reviews. The reporting followed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) checklist. Primary studies using mixed-methods, quantitative, and qualitative approaches that detailed HIV and AIDS community-led interventions carried out in Southern Africa were considered for this review. Two reviewers separately extracted the data from the included studies using a data extraction tool in Microsoft Excel. We used NVivo to develop codes and categories for the scope and outcomes of community-led interventions.
Results Thirteen articles were included in this scoping review. Eleven of the studies were quantitative studies, one was a mixed-methods study, and another one was a qualitative study. Peer-based programs, adherence clubs, community conversations, support groups, community-based HIV testing, and antiretroviral therapy (ART) linkage are some of the community-led interventions found in this scoping review. The outcomes of these interventions include increased awareness of HIV and AIDS, decreased risky behaviours and stigma related to HIV, increased disclosure of partners' HIV status, increased testing for HIV, linkage to care, adherence to ART, retention in care, and viral suppression.
Conclusion Based on the promise demonstrated in this review, further investment in and support for community-led HIV interventions in Southern Africa is justified. Scaling up these interventions, alongside robust evaluation efforts, holds significant potential to contribute to a more comprehensive and effective response to the HIV epidemic in the region.

Keywords HIV · Community-led interventions · Southern Africa · Outcomes · Scoping review

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1 Introduction

Over the past few decades, significant progress has been made in containing the human immunodeficiency virus (HIV) epidemic worldwide (1). A few countries in Southern Africa have met the Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 targets [1]. The UNAIDS 95-95-95 targets state that 95% of the people living with HIV (PLHIV) should know their HIV status, 95% of the PLHIV should be on lifesaving antiretroviral treatment (ART), and 95% of people on ART should be virally suppressed [2]. Southern African countries that have met these goals include Botswana, Zimbabwe, Eswatini, and the United Republic of Tanzania [1]. There is a need to expand the involvement of communities in the testing, prevention, and treatment of HIV [3]. Involving communities in HIV and acquired immunodeficiency syndrome (AIDS) interventions has various advantages. Community involvement in HIV programs leads to comprehensive attention given to clients' needs and may raise the quality and adoption of HIV services by bringing accountability closer to the level of service provision [4]. Community-led interventions usually enjoy the trust of community members, which gives a perception of ownership by communities towards the interventions, thereby enhancing their likelihood of success [5]. Additionally, community-led interventions are able to adapt to changing contexts and policy priorities [6], and their flexibility allows for adjustment to shifting policy priorities and situations [7].

Some of the community-led prevention interventions include HIV testing and counseling, risk reduction education, and other behavioral change interventions [8]. Community-led treatment interventions include adherence support and decentralized medication delivery [8]. Additional community-led interventions include direct service delivery, community financing, community-based research that involves community participation, advocacy, campaigning, and civil society involvement in decision-making, monitoring, and reporting on the effectiveness of HIV interventions [8].

It is widely recognized that to meet the global HIV targets, communities with a high HIV prevalence need to be heavily involved in the HIV global response [9]. The United Nations (UN) Political Declaration on HIV and AIDS indicates an international commitment to people-centred systems for health (10). By 2030, the UN member states promised to guarantee that at least 30% of HIV services would be community-led [10]. Nevertheless, this dedication has not yet resulted in the expansion of community-led interventions' reach [11]. The dearth of data substantiating the effectiveness of community-led interventions is one of the reasons for the lack of scale-up [9].

This scoping review aimed to assess the scope and outcomes of HIV community-led interventions that were conducted in Southern Africa. Such information may inform policymakers and decision-makers on the effectiveness of community-led interventions so that they can support their implementation.

2 Methodology

2.1 Study design

We conducted this scoping review to assess HIV and AIDS community-led interventions in Southern Africa as well as their outcomes. The scoping review was guided by the Joanna Briggs Institute (JBI) methodology for scoping reviews, while the reporting followed the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Extension for Scoping Reviews (PRISMA-ScR) checklist [12]. This scoping review was not registered in any database.

2.2 Research questions

The problem-interest-context (PICo) framework guided the formulation of the study questions [13]. We identified the problem as HIV and AIDS, the interest as community-led interventions, and the context as Southern Africa. We sought to answer the following questions:

(a) What is the scope of HIV and AIDS community-led interventions implemented in Southern Africa?
(b) What were the outcomes of the HIV and AIDS community-led interventions that were implemented in Southern Africa?

2.3 Inclusion criteria

Primary studies using mixed-methods, quantitative or qualitative approaches that detailed HIV and AIDS community-led interventions carried out in Southern Africa were considered. Only studies written in English and published between 2013 and 2023 were included in our review. We chose articles published between 2013 and 2023 to ensure that the findings are relatively recent and, therefore, apply to the current situation.

2.4 Exclusion criteria

This review did not include systematic reviews, meta-analyses, meta-synthesis, opinion articles, editorials, and scoping reviews.

2.5 Literature sources and search strategy

PubMed, ScienceDirect, SCOPUS, Google Scholar, and Africa Journals Online (AJOL) were searched for peer-reviewed articles of studies that were written in English and published between 2013 and 2023. All databases were searched on 14 November 2023. The keywords that we used for the literature search include 'community-led', 'HIV', 'AIDS', 'interventions', 'responses', 'outcomes', 'results', 'scope', 'Southern Africa', 'Angola', 'Botswana', 'Comoros', 'Democratic Republic of Congo', 'Eswatini', 'Lesotho', 'Madagascar', 'Malawi', 'Mauritius', 'Mozambique', 'Namibia', 'Seychelles', 'South Africa', 'United Republic of Tanzania', 'Zambia' and 'Zimbabwe'. Boolean operators 'AND' and 'OR' were employed to restrict or broaden our literature search. More information about the PubMed search strategy is presented in Supplementary File 1.

Studies that met the inclusion criteria had their full-text articles exported to ENDNOTE [14], where duplicate articles were eliminated. Two reviewers (EM and PM) assessed the titles and abstracts of the remaining studies independently. To reach an agreement, the two reviewers contrasted their findings and discussed any discrepancies. When the two reviewers failed to reach a consensus, a third reviewer (TD) was engaged for arbitration. The reference lists of the full-text articles that remained were evaluated to find any relevant studies that might have been missed in the first search. The reviewers checked whether the remaining studies were conducted in Southern Africa and reported on outcomes of community-led responses to HIV and AIDS. In addition, the reviewers verified if the studies were primarily qualitative, quantitative or mixed-methods. We did not conduct critical appraisal of individual sources of evidence as it is not mandatory or required for scoping reviews [12].

2.6 Data extraction

To assist with gathering data, we created a tool for data extraction in Microsoft Excel. We conducted a pilot test of the data extraction tool on the two included studies to assess its adequacy. After separately extracting data from the included studies, two reviewers (EM and PM) compared their results. They revisited the articles in cases where their conclusions differed to come to a consensus. Where the two reviewers did not reach a consensus, they consulted a third reviewer (TD) for adjudication. The data that were extracted from each study include the first author of the study, the year of publication of the study, the country where the study was carried out, the study method, the study design, the study population, the community-led interventions that were implemented, and the outcomes of these interventions, whether positive or negative.

2.7 Data synthesis

We presented the extracted findings in narrative form using a table. We exported it into NVivo version 20 for analysis after we had familiarized ourselves with the data. We developed codes and categories for the scope of community-led interventions and the outcomes using NVivo. After the codes and categories were generated, all the authors discussed how the codes could be grouped into categories. Where there were disagreements, we discussed them until an agreement

was reached. The discussions were conducted to ensure that all the categories generated reflected the findings and addressed our research questions.

3 Results

3.1 Identification and selection of studies

A total of 123 articles were initially obtained from all the databases and the reference lists that were searched. After deleting duplicates, 63 articles were left for abstract screening. Forty-eight articles were excluded at abstract screening because they were either systematic reviews or were not conducted in Southern Africa. Fifteen studies were eligible for full-text screening. Two studies [15, 16] were removed from the review. One article [15] was removed because it reported on designing an intervention, while another [16] was excluded because it reported on community systems strengthening for HIV care. Thirteen studies remained for this scoping review. Further details are shown in Fig. 1.

3.2 Characteristics of included studies

Among the thirteen studies that were included in this review, three [17–19] were conducted in South Africa, another three [20–22] in Zimbabwe, two each in Malawi [23, 24] and Tanzania [25, 26], and one each in Zambia [27], Eswatini [28], and Mozambique [29]. Eleven of the studies were quantitative studies [17, 19, 21–29], one [18] was a mixed-methods study and another one [20] a qualitative study. Six of the studies [17, 19, 21–23, 25] employed a randomized controlled study

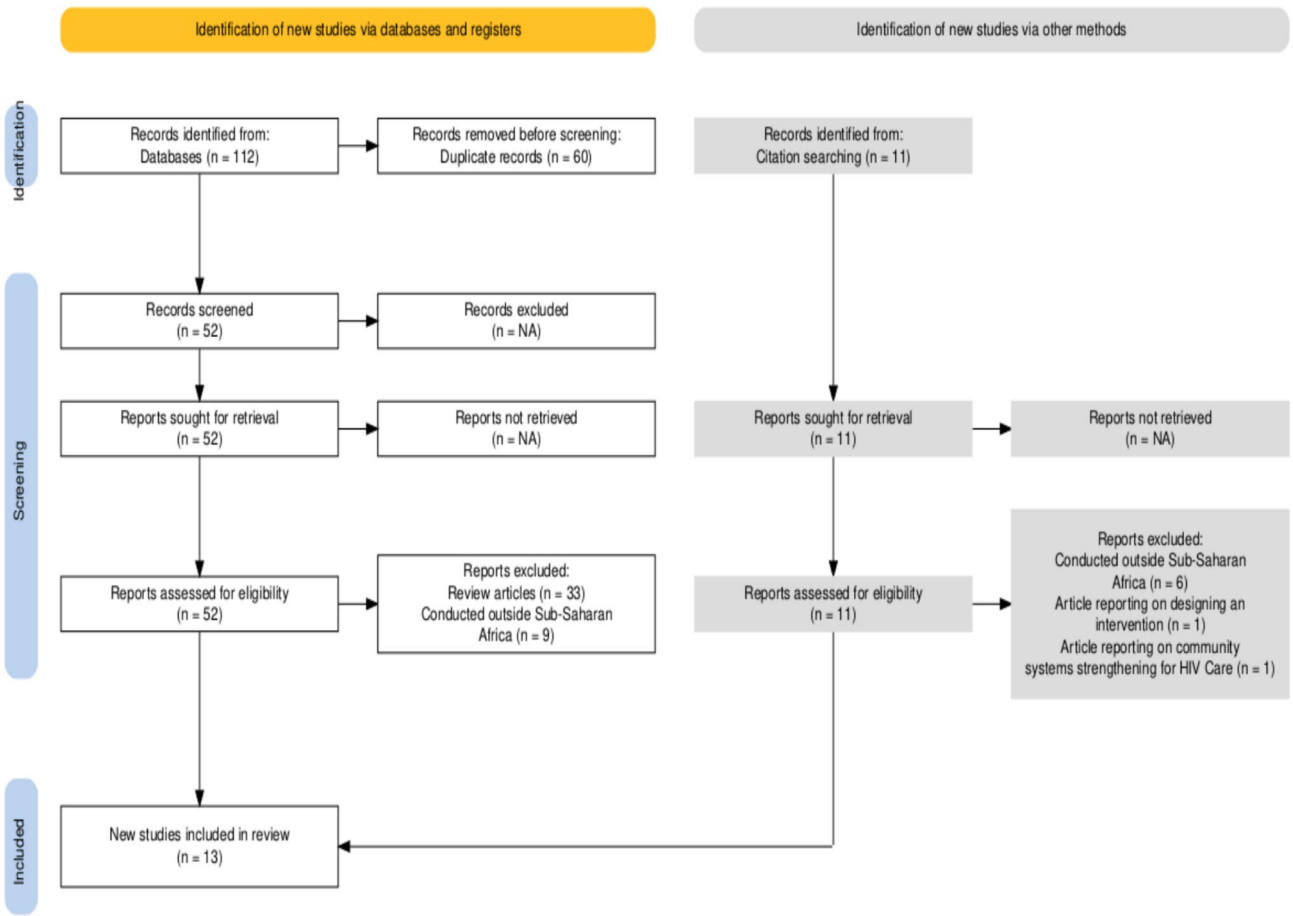

Fig. 1 PRISMA Flowchart

Table 1 Characteristics of included articles

First Author, Publication Year	References	Country	Study Method	Study Design
Lippman SA., 2022	[17]	South Africa	Quantitative	Cluster-randomized controlled trial
Timol F., 2016	[18]	South Africa	Mixed-methods	Not specified
Fox MP., 2019	[19]	South Africa	Quantitative	Cluster-randomized study
Campbell C., 2013	[20]	Zimbabwe	Qualitative	Not specified
Bandopadhay N., 2021	[21]	Zimbabwe	Quantitative	Three-arm randomized trial
Mavhu W., 2020	[22]	Zimbabwe	Quantitative	Cluster-randomized controlled trial
Indravudh PP., 2021	[23]	Malawi	Quantitative	Cluster-randomized trial
Kumbani LC., 2023	[24]	Malawi	Quantitative	Hybrid design
Mageda K., 2023	[25]	Tanzania	Quantitative	Parallel cluster-randomized trial
Mantsios A., 2018	[26]	Tanzania	Quantitative	Not specified
Mwango LK., 2020	[27]	Zambia	Quantitative	Retrospective analysis
Suraratdecha C., 2023	[28]	Eswatini	Quantitative	Retrospective cohort
Jobarteh K., 2016	[29]	Mozambique	Quantitative	Retrospective cohort

design, three [27–29] employed retrospective study design, one [24] employed a hybrid study design and three studies [18, 20, 26] did not specify the study design used. Table 1 shows more details of the characteristics of the included studies.

3.3 Review findings

This scoping review's findings are presented in Table 2.

3.3.1 Community-led interventions

The interventions used in the included studies include community mobilization for treatment as prevention [17]; peer-based education program on risky behaviors and HIV prevention [18, 24]; adherence clubs and decentralized medication delivery [19, 29]; community conversations in facilitating local HIV competence [20]; community leader engagement, community days, and peer groups [21]; community adolescent treatment support, monthly support groups, and received text messages, calls, home visits, and clinic-based counseling [22]; community-led HIV self-testing [23]; community-based adherence counseling and intensive follow-up [25]; community savings participation [26]; and community-based HIV testing and ART linkage [27, 28]. We categorized the interventions by their primary focus and discussed them below.

3.3.1.1 Community-led HIV prevention and linkage to care interventions Several studies explored community-led interventions aimed at preventing the spread of HIV and linking PLHIV to care. These interventions included:

- Peer-based education programs: These programs focused on educating participants about risky behaviors, HIV transmission, prevention strategies, and healthy relationships [18, 24].
- Community-led HIV self-testing (HIVST): This intervention empowered communities to conduct their own HIV testing [23]. Additionally, community-led HIVST facilitated couples' knowledge of their HIV status [23].
- Community savings participation: This intervention aimed to increase consistent condom use (CCU) among female sex workers (FSWs) [26].
- Community mobilization for treatment as prevention (TasP): This intervention mobilized communities to encourage HIV testing, and linkage to care [17].
- Community-based HIV testing and ART linkage: The intervention aimed to increase community-based HIV testing and link those who tested positive to ART clinics for ART initiation [27, 28].

3.3.1.2 Community-led HIV treatment and adherence interventions Studies explored interventions that provided support and improved access to treatment and adherence to ART for PLHIV. These interventions included:

Table 2 Findings from the included studies

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Lippman SA., 2022	[17]	Community Mobilization for Treatment as Prevention	38,300 participants in 15 communities in Mpumalanga province	Adults 18–49 years of age	- At the conclusion of the trial, the intervention group's rate of HIV testing among women was much higher than that of the control group - In the intervention arm, there was a significant quarterly increase of about 1.3% in the number of patients linked to care within 90 days - At trial's conclusion, 83% of the intervention group's women were still receiving care, compared to 81% of the control group -In the final year of the trial, men in the intervention group were significantly more likely to know their status (44.9% vs 36.9%), be on ART (26.1% vs 20.4%), and be virally suppressed (19.8% vs 19.3%) - In the final year of the trial, women in the intervention group were significantly more likely to know their status (68.3% vs 64%), be on ART (44.1% vs 39.2%), and be virally suppressed (33.6% vs 30.7%) - Compared to the control group, 200 more residents in the intervention group had viral suppression -No significant differences were detected in linkage or retention among men

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Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Timol F., 2016	[18]	Peer-based education program on risky behaviours	7709 learners in 27 peer intervention schools and 8 control schools	Adolescents	–93% of participants in the intervention group said the classes improved their knowledge and comprehension of HIV and AIDS -Future orientation, self-efficacy in sexual relations, knowledge regarding HIV transmission, prevention, and healthy relationships improved in the intervention group in the short term - The intervention group experienced sustained increases in self-efficacy in sexual interactions
Fox MP., 2019	[19]	Adherence clubs (Acs) and decentralized medication delivery (DMD)	1147 participants in 12 health care facilities allocated to intervention and 12 to control group in 4 provinces (Gauteng, North West, Limpopo, and KwaZulu Natal)	Patients over the age of 18 years who were not pregnant	- Compared to the standard of care, patients in adherence clubs had a higher one-year retention rate (89.5% vs 81.6%) -Viral load suppression was comparable in the two arms (Adherence clubs and the standard of care) -DMD had lower retention rate compared to the standard of care -DMD had comparable viral suppression with the standard of care

Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Campbell C., 2013	[20]	Community conversations in facilitating local HIV competence	77 participants in rural Zimbabwe	Rural adults	- Having community discussions to promote local HIV competence allowed participants to create concrete, realistic action plans for improved HIV coping - The participants felt inspired and driven to support PLHIV - Helped with critical thinking around HIV-related problems - A feeling of camaraderie and shared purpose was fostered among participants - From being passive consumers of HIV knowledge, participants became proactive problem solvers -Community conversations reduced the taboo and stigma related to HIV - Poverty, poor harvests and political instability frustrated and limited many participants' efforts to put their plans into action
Bandopadhay N., 2021	[21]	Community leader engagement, community days, and peer groups	6479 participants in 3 regions/districts of each of the included 3 countries (Eswatini, Uganda, and Zimbabwe). Each region/district consisted of 15 healthcare facilities	Community leaders and adult community members	-There was a decrease in HIV stigma scores post-intervention in all arms of the study - HIV stigma decreased more as a result of community leader engagement and community days interventions compared to just community leader engagement among men. However, there was no difference among women -Adding community peer groups intervention to community leader engagement and community days interventions did not significantly reduce HIV stigma among women and men compared to just community leader engagement

Discover Public Health (2025) 22:78 | https://doi.org/10.1186/s12982-025-00468-y

Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Mavhu W., 2020	[22]	Participants in the intervention group assigned a community adolescent treatment supporter, attended a monthly support group, and received text messages, calls, home visits, and clinic-based counselling	496 participants from 16 public primary care facilities in 2 rural districts in Zimbabwe	Adolescents living with HIV	- At 96 weeks, the percentage of individuals with a viral load of at least 1000 copies/ml was 25% in the intervention group and 36% in the control group -Peer-supported community-based differentiated service delivery can significantly improve HIV viral suppression in adolescents with HIV - Due to the intervention group's emphasis on supportive friendships, shared experiences, and role modeling, participants' quality of life was enhanced - The intervention group's members and their carers had better HIV and treatment literacy, which boosted the adolescents' self-esteem and adherence to treatment - The intervention eased the participants' feelings of loneliness and lessened their anxiety about the immediate and long-term effects of their HIV status

Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Indravudh PP., 2021	[23]	Community-led HIV self-testing	7880 participants from 30 group village head clusters	Adolescents and adult residents	- Adolescents who participated in the community-led HIVST arm had lifetime HIV testing at a considerably greater rate than those in the standard of care arm (84.6% vs 67.1%) -HIV testing in the previous 3 months among adults was higher in the community-led HIVST arm compared to the SOC arm (74.5% vs 31.5%) - The community-led HIV self-testing arm had a significantly higher cumulative incidence of ART initiation in the first three months post-intervention period (186.3 vs 93.0 per 100 000 population) -Cumulative incidence of ART initiation was not statistically different in the two arms at six months post-intervention - In the community-led HIVST arm, couples' mutual understanding of each other's HIV status was also higher
Kumbani LC., 2023	[24]	Peer group intervention to increase HIV prevention knowledge	460 adults and 548 youth from 3 communities	Rural adults and the youth	-The proportion of participants who answered correctly to the knowledge scores and the mean knowledge scores were higher in the intervention group compared to the control groups -HIV knowledge indicators increased over time - The intervention was effective for youth and not adults when the data was analysed separately

Discover Public Health (2025) 22:78 | https://doi.org/10.1186/s12982-025-00468-y

Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Mageda K., 2023	[25]	Community-based adherence counselling and intensive follow-up	82 participants from 25 health centres in Simiyu region	Children 2–14 years old with viral load ≥ 1000cells/mm	–97.56% of children in the intervention group achieved significantly acceptable higher good adherence compared to 75.61% in the control group -There was a greater reduction in viral load in the intervention group compared to the control group -At the end of the study, 4% of the variance in viral load suppression was explained by the intervention
Mantsios A., 2018	[26]	Community savings participation	496 female sex workers (FSWs) in Iringa	Female sex workers	-Community savings group participation was significantly associated with consistent condom use (CCU) with new and regular clients -The relationship between savings group participation and CCU was partially mediated by financial security
Mwango LK., 2020	[27]	Community-based HIV testing and ART linkage	38 255 people from 37 Community Impact to Reach Key and Underserved Individuals for Treatment and Support (CIRKUITS) supported facilities in three provinces	Individuals 15 years and older that received any community-based HIV testing	-High numbers of HIV cases identified and a high overall testing yield of 29% -Linkage to ART was more than 93% for participants who tested positive -Positivity yield exceeded 20% for both men and women for all districts -Index testing was found to be a high yield strategy for men -Targeted community outreach HTS had an 18% positivity yield for men, with 98% linkage to ART -More than 93% of participants provided their sexual partners' contact details, which enabled contact tracing -Index tracing resulted in a 45% positivity yield and 89% linkage to ART

Table 2 (continued)

First Author, Publication Year	References	Intervention	Coverage of the intervention	Population	Outcome Findings
Suraratdecha C., 2023	[28]	Community-based mobile and index HIV testing by peers and linkage to ART	773 participants from 2 urban and 13 rural constituencies in the Manzini region	Individuals above the age of 15 years who had tested positive	–97% of those who tested positive were initiated on ART –76% were initiated on ART and retained at 18 months
Jobarteh K., 2016	[29]	Community Adherence and Support Groups	129 938 participants from 68 health facilities	Patients 15 years and older who were stable on ART for more than 6 months	-One year adherence among community adherence and support groups (CASGs) was higher than among non-CASGs (91.4% vs 82.9%) -Compared to eligible CASG participants, non-eligible CASG participants had significantly higher loss to follow-up, HR = 2.36, 95% CI (1.54 – 3.17)

- Community mobilization for treatment as prevention (TasP): This intervention mobilized communities to encourage adherence to ART [17].
- Community adherence support groups: These groups provided social support, adherence counseling, and reminders to improve adherence to ART [19, 29].
- Community health worker interventions: Interventions involving community health workers like peer supporters or community adolescent treatment supporters offered various forms of support, including adherence counseling, home visits, and emotional support [22, 25].

3.3.1.3 Community-led HIV retention in care interventions Studies explored interventions that provided support for retention in HIV care. These interventions included:

- Community mobilization for treatment as prevention (TasP): This intervention mobilized communities to encourage retention in HIV care [17].
- Community adherence support groups: These groups provide social support and decentralized medication delivery (DMD) to PLHIV for them to remain in HIV care [19, 28, 29].

3.3.2 The scope of the community-led interventions

The community-led interventions in the included studies involved as little as 77 participants [20] to as many as 129 938 participants [29]. Three of the studies [27–29] used individuals aged 15 years and above as the study population, two each used adults [17, 19] and adolescents [18, 22], and one each used rural adults [20], community leaders and adult community members [21], adolescents and adults [23], rural adults and youth [24], children between the ages of 2 and 14 years [25], and female sex workers [26]. The interventions were offered in different settings such as schools [18], communities [17, 23, 24, 28], and healthcare facilities [19, 21, 27, 29]. More details are presented in Table 2.

3.3.3 Outcome findings

Several outcomes of the community-led interventions were revealed in this review. We categorized these outcomes into prevention outcomes, linkage to care outcomes, treatment outcomes, retention in care outcomes, and lifestyle outcomes. Prevention outcomes revealed in this study include an improvement in knowledge about HIV and AIDS [18, 22, 24], a reduction in risky behavior [18], improved self-efficacy in sexual relations [18, 22], increased disclosure of HIV status among partners [23], and an increase in consistent condom use (CCU) [26]. However, financial security played a role in mediating the relationship between savings group participation and CCU [26]. One study [18] revealed that a community-led intervention improved knowledge regarding HIV transmission, prevention, and healthy relationships. HIV testing among the participants who were in the intervention groups increased [17, 23, 27]. One study [23] revealed that community-led HIVST increased the lifetime HIV testing among adolescents and the previous three months HIV testing among adults while another study [27] revealed that index testing was very successful in community-based HIV testing.

There was also an increase in linkage to care among participants who tested positive for HIV in the intervention groups [17, 23, 27, 28]. One study [23] revealed that there was a significantly higher ART initiation in the first three months after the community-led HIVST group compared to the standard of care. However, the study [23] revealed that the cumulative incidence of ART initiation was not statistically different in the two arms at six months post-intervention. Two studies [27, 28] revealed that more than 90% of participants who tested HIV positive in community-based HIV testing were initiated on ART. However, one study [17] did not find any improvement in linkage to care among the intervention group in men.

One study [22] noted an increased knowledge regarding HIV treatment. Treatment adherence among the intervention groups also improved significantly when compared to the control groups [22, 25, 29]. One study conducted in Zimbabwe [22] revealed that the increase in treatment adherence was due to an improvement in knowledge about HIV treatment among the study population, while another study [25] revealed that community-based adherence counseling and intensive follow-up improved treatment adherence among children in the intervention group. Community-led interventions also led to an increase in viral suppression among participants who were taking ART [17, 22, 25]. However, one study [19] revealed that participants who were randomized to receive decentralized medication delivery (DMD) had a viral load suppression rate which was comparable to that of those who were receiving standard of care.

Among participants on HIV treatment who received community-led interventions, higher retention rates in care were reported compared to those who were in the control groups [19, 28, 29]. However, one study [17] did not report any difference in retention in care between the intervention and the control groups among men. Another study [19] that studied DMD revealed that participants who were randomized to receive DMD had lower retention rates compared to those who received the standard of care.

The quality of life among participants in the intervention groups also improved [22]. Community-led interventions led to better coping with living with HIV among participants and improved critical thinking on how to solve problems caused by HIV [20, 22]. Community-led interventions reduced HIV stigma [20, 21], motivated and inspired communities to help PLHIV [20], and inculcated a sense of community and common purpose among community members [20]. One study [21] revealed that HIV stigma decreased more as a result of community leader engagement and community day interventions compared to just community leader engagement among men. However, there was no difference among women. The same study [21] revealed that adding community peer group intervention to community leader engagement and community days interventions did not significantly reduce HIV stigma among women and men compared to just community leader engagement. Another study [20] revealed that poverty, poor harvests, and political instability frustrated and limited many participants' efforts to put their plans into action.

4 Discussion

The review identified diverse community-led approaches, including peer education, adherence support groups, community conversations, and community-based testing and linkage to care. These interventions were associated with improvements in several key areas, including increased awareness of HIV and AIDS, decreased risky behaviors and stigma related to HIV, increased disclosure of partners' HIV status, increased use of condoms consistently, increased testing for HIV, linkage to care, adherence to antiretroviral therapy, retention in care, and viral suppression, as well as an enhanced quality of life. These findings align with the potential benefits of community involvement in health programs, such as increased program ownership, improved trust with the target population, and greater accountability. These findings concur with the results of another scoping review which revealed a range of community-led interventions that include peer-led education, adherence programs, community support groups, and community-led testing, care, and treatment [9].

Peer-led interventions in this review improved HIV knowledge among youth and resulted in a sustained increase in their self-efficacy in sexual interactions. Peer-led programs have many benefits including peer supporters acting as role models for PLHIV, providing social, informational, and emotional support, and providing referrals for PLHIV to other care organizations that can help them connect with their communities [30]. The current review revealed that community-led interventions increased HIV testing, linkage to care, ART adherence, retention in care, and viral suppression, as well as an improved quality of life. These findings were also reported by an earlier scoping review [9]. These findings may be a result of the services being closer to where people live, resulting in them being accessible and affordable since people may not need to travel to access them. Another explanation may be that support groups may remind each other to take their medications and take turns collecting them [31]. Community participation in adherence and treatment programs is usually focused on home-based follow-up, psychosocial, and peer support [32]. Community participation involves using community health workers, peer counselors, and support groups [32]. Community-based HIVST may require trained community members to explain how the test is carried out and how the results are read and interpreted [33]. The kits can also be accompanied by instructional printed material or online videos [33]. Successful implementation of community-based HIVST requires the tests to be affordable and easily available in the community. HIVST kits should be available in places people frequent such as supermarkets, pharmacies, bars, and bus terminuses. Community health workers can also distribute the HIVST kits in the communities [34]. Community-based HIVST has the advantage of overcoming barriers to facility-based testing such as stigma and accessibility problems [34, 35].

The current review revealed that other community-led interventions in Southern Africa include community conversations to improve HIV knowledge, engagement of community leaders, community savings participation, and community-based ART linkage following HIV testing. Community conversations have also been used to improve HIV knowledge in Ethiopia [36]. Community conversations are a participatory process in which different members of the community come together to discuss their concerns and through the use of their values and capacity, come up with resolutions that can bring about the required changes, which will then be implemented [37]. It focuses on building communities' capacity to assess their socio-cultural, demographic, and economic conditions that contribute to HIV and AIDS, and related problems such as stigma, discrimination, and care for orphans and vulnerable children [37]. The engagement of

community leaders in the prevention and treatment of HIV has also been identified as an important intervention in India [38]. Community leaders include political, traditional, and church leaders and they play important roles in communities [39]. They establish and maintain norms and cultural values within their communities by regulating cultural practices and beliefs [39]. In some communities, community leaders are a source of health information [39]. Therefore, engaging community leaders in HIV and AIDS interventions may ensure their buy-in of the interventions, which may make it easier for the communities to accept the interventions [39]. One scoping review revealed that the economic strengthening of households is an important intervention for reducing risky behaviours [40]. Some economic strengthening approaches include conditional or unconditional cash transfers, financial incentives, food assistance, educational support, and savings [40]. Community-based interventions have also been used in Ghana to increase linkage to HIV treatment among men who have sex with men [41].

This review found that community-led interventions increased condom use, decreased risk behaviors and HIV-related stigma, increased partner disclosure of HIV status, and improved knowledge of HIV and AIDS. These findings concur with those of a systematic review which revealed that community-based interventions led to an improvement in HIV and AIDS knowledge, a reduction in risky behaviours, and an increase in condom use [42]. These findings may be attributed to the interventions being administered by peers and community leaders who are trusted by the recipients.

The review revealed that the community-led interventions covered a few communities and included a few population groups. It is, therefore, important that other population groups, especially vulnerable populations such as men who have sex with men (MSM), are included in community-led interventions since they are disproportionately affected by HIV. Although there are a few negative outcomes of community-led interventions revealed in this review, the majority of the outcomes were positive, which may suggest that expanding the scope of these interventions may lead to positive health outcomes and gains in meeting the UNAIDS 95-95-95 targets.

One of the strengths of this scoping review is that it followed the JBI methodology for scoping reviews, making the results reliable. Another advantage is that two reviewers independently retrieved the data, which made it possible to detect errors. This review is not without limitations. One of the limitations is that there might have been a language bias because only English publications were considered. In addition, only five databases were searched, which might have led to the omission of other relevant studies from databases that were not searched. Furthermore, the review used only articles published between 2013 and 2023.

5 Conclusion

This scoping review examined 13 studies exploring community-led interventions for HIV and AIDS prevention, linkage to care, treatment, and retention in care in Southern Africa. Although the limited number of studies included cannot provide definitive conclusions about widespread effectiveness, the findings suggest promising potential for these interventions to contribute to positive health outcomes.

Future research is warranted to explore the effectiveness of community-led interventions in a wider range of settings and contexts across Southern Africa. Additionally, research is needed to identify the specific components of these interventions that contribute to positive outcomes. Based on the promise demonstrated in this review, further investment in and support for community-led HIV interventions in Southern Africa is justified. Scaling up these interventions, alongside robust evaluation efforts, holds significant potential to contribute to a more comprehensive and effective response to the HIV epidemic in the region.

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Declarations

Competing interests The authors declare no competing interests.

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