‘A spade was called a spade...it was not called a garden tool...’: Youth and intervention implementers’ perceptions of a resilience-based HIV prevention intervention for reducing risky sexual behaviors among youth in South Africa

Fungai Mbengo (fmbe2002@yahoo.com)
School of Nursing and Midwifery, Edith Cowan University

Esther Adama
School of Nursing and Midwifery, Edith Cowan University

Amanda Towell-Bamard
School of Nursing and Midwifery, Edith Cowan University

Maggie Zgambo
School of Nursing and Midwifery, Edith Cowan University

Research Article

Keywords: HIV prevention intervention, intervention implementers, perceptions, resilience, risky sexual behavior, youth

Posted Date: January 24th, 2023

DOI: https://doi.org/10.21203/rs.3.rs-2392849/v3

License: This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License
Abstract

**Background:** Youth (15-24 years) in South Africa remain at high risk of HIV infection despite interventional efforts to control the disease. Programs directed at promoting resilience or protective factors in youth have been recommended as a multifaceted approach to mitigate risky sexual behaviors associated with HIV infection among youth. However, limited research exists on how relevant stakeholders, such as youth and intervention implementers perceive resilience-based HIV prevention interventions targeting youth. This study explored youth and intervention implementers’ perceptions of a resilience-based HIV prevention intervention (*You Only Live Once*) aimed at reducing risky sexual behaviors among youth in South Africa.

**Methods:** Semi-structured interviews were conducted with 10 youth who participated in the intervention and four intervention implementers at a not-for-profit organization in Maluti-a-Phofung Local Municipality, South Africa. Data were analyzed using thematic analysis.

**Results:** Three main themes emerged from the data: (1) **Acceptability and impact of the intervention** – the intervention was perceived as important and helpful in fostering positive behavior change among youth and enhancing their sexual health and social skills knowledge; self-confidence; and relationships with parents and peers. (2) **Factors influencing intervention implementation** – participants reported several multi-level factors which impeded or promoted the implementation of the intervention. (3) **Recommendations to improve intervention implementation** – participants made suggestions on how intervention implementation could be enhanced.

**Conclusion:** These findings provide insights into youth and intervention implementers’ perceptions about the acceptability, impact and barriers and facilitators of resilience-based HIV prevention interventions for youth in South Africa and similar contexts. The findings can help researchers, policy makers and healthcare practitioners in the field of HIV prevention to improve interventions targeting young people.

**Background**

While there has been progress in the prevention of Human Immunodeficiency Virus (HIV), in 2021, about 400,000 youth aged 15-24 years became newly infected with HIV worldwide [1]. South Africa remains one of the countries in the world most affected by HIV [1]. In 2021, South Africa had an estimated 7.5 million people living with HIV and a national HIV prevalence of 18.3% among adults aged 15-49 years [1]. As in many Sub-Saharan countries, South African youth remain at high risk of HIV [2, 3]. In 2021, youth accounted for 32% of new infections despite comprising 16% of South Africa’s population [1, 4]. Youth are vulnerable to HIV due to a myriad of factors at different socio-ecological levels, including lack of sexual and reproductive health knowledge, gender-based violence, harmful social norms, low self-esteem, peer pressure, lack of child-parent communication on sexual issues, poverty and unemployment [3, 5, 6]. Furthermore, youth engage in risky sexual behaviors, such as early sexual debut, unprotected sex,
multiple sexual partnerships, intergenerational sex, transactional sex and sex under the influence of alcohol or drugs which increases their vulnerability to HIV [7-9].

The high rate of new HIV infections among youth poses a threat to the attainment of the Sustainable Developmental Goal (SDG) number 3, which aims to ensure health and well-being for all people including a commitment to end HIV by 2030 [10]. To mitigate HIV, effective intervention approaches targeting youth are urgently needed. While previous research has emphasized the importance of incorporating individual-level factors, such as sexual health knowledge and attitudes in intervention development [11, 12], HIV prevention interventions targeting youth had demonstrated limited impact in reducing risky sexual behaviors [13-15]. Interventions focused on building resilience or promoting protective factors in youth have been proposed as a multifaceted strategy for preventing risky sexual behaviors linked to HIV infection among young people [16-18]. Such resilience-based interventions focus on young people's strengths and enhance individual protective factors [e.g., condom use skills] and environmental protective factors [e.g., improved relationship with parents and peers] that are known to prevent youth from engaging in risky sexual behaviors [16-18]. Several observational studies have established positive relationships between resilience or protective factors and healthy sexual behaviors [19-22]. Evidence from United States of America suggests that resilience-based HIV prevention interventions are effective in reducing risky sexual behaviors among youth [23, 24]. A study conducted in South Africa indicates that resilience-based interventions have potential to avert risky sexual behaviors in young people [25].

To promote success of an intervention, the UK Medical Research Council's updated framework for developing and evaluating complex interventions recommends meaningful engagement of relevant stakeholders of an intervention [26]. Stakeholders are defined as individuals who are targeted by the intervention, those involved in its design or implementation, or those whose professional and personal interests are impacted by the intervention [26]. These include youth who participate in an intervention and intervention implementers. An understanding of relevant stakeholders' perspectives of HIV prevention interventions targeting youth could inform future research, intervention design and implementation, and enhance intervention success. However, in South Africa scarce research exists on how relevant stakeholders perceive resilience-based HIV prevention interventions directed at youth. Research on HIV prevention interventions targeting young people rarely addresses youth and intervention implementers' perceptions and experiences [27]. Views of relevant stakeholders, including youth and intervention implementers is important to inform research, policy and practice aimed at improving interventions targeting youth. Consequently, this study explored youth and intervention implementers' perceptions of a resilience-based HIV prevention intervention (You Only Live Once) designed to reduce risky sexual behaviors among youth in South Africa.

**Methods**

**Intervention**
You Only Live Once intervention was designed in 2016 by the South African Department of Social Development [28]. The overall objective of the intervention is to reduce new HIV infections among youth (15-24 years) by strengthening their resilience or protective factors to enable them to withstand various factors influencing risky sexual behaviors [28]. Socio-ecological model and theory of change informed the development of the intervention [29]. The socio-ecological model suggests that multi-level factors affect risky sexual behaviors among youth [5]. The theory of change describes the causal mechanism of how the intervention’s activities will result in achieving the expected outcomes [30]. You Only Live Once curriculum is made up of 12 sessions that seek to strengthen individual protective factors: self-esteem; self-identity; self-efficacy/confidence (sessions 1, 2 and 6); communication skills (sessions 3 and 11); decision-making skills (session 12); skills in dealing with emotional and social challenges (session 9); and knowledge on sexual health, HIV/AIDS, contraception, unintended pregnancies, sexual and reproductive rights, risky sexual behaviors (sessions 4, 5, 7 and 8), and environmental protective factors: improved relationships with peers, parents and community members (session 10); and access to basic services (sessions 4, 5, 7, 8, 9) [28, 29].

The You Only Live Once intervention was implemented by five trained adult implementers in a mixed-gender group setting of 15-20 youth using a range of participatory methods, such as role-plays, group dialogues and discussions, participant reflections, short seminars and take-home activities. The sessions were implemented over one week, in two sessions per day with each session lasting 1-2 hours. The sessions took place on days and times agreed between the youth and intervention implementers, and in venues located in the same community where the youth and intervention implementers live (mostly in intervention implementers’ homes) to promote session attendance. The intervention implementers were supervised by a social worker of the not-for-profit organization. Youth were provided refreshments during the sessions and a certificate of attendance at the end of the intervention. Overall, 197 youth participated in the intervention.

Study design

This study was part of a larger project assessing the You Only Live Once intervention using an explanatory sequential mixed methods design [31]. The quantitative component examined the intervention’s impact on risky sexual behaviors, resilience and protective factors of youth, and findings are published elsewhere [25]. A qualitative descriptive design was employed to explore and describe participants’ perceptions and experiences of the intervention [32, 33]. The addition of qualitative data to evaluate the program was expected to obtain a better understanding about the intervention’s impact.

Setting

The study took place at a not-for-profit organization delivering the You Only Live Once intervention in Maluti-a-Phofung Local Municipality, South Africa. The organization renders a variety of free services, including HIV prevention interventions to at risk children and youth in accordance with the South African Children’s Act (No. 38 of 2005) [34]. The intervention was first implemented at the organization in 2017. Maluti-a-Phofung Local Municipality is situated within the Thabo Mofutsanyana District in the Free
State Province. It is surrounded by the Kingdom of Lesotho to the south, Phumelela Local Municipality to the north, KwaZulu-Natal Province to the east and Dihlabeng Local Municipality to the west. The municipality's size is approximately 4,421 km$^2$ [35]. About 336,000 people live in the municipality and 98% of them are black South Africans of the BaSotho tribe [34]. Almost half of the municipality's population are youth under the age of 20 years [36]. High levels of HIV prevalence, unemployment and poverty are some of the challenges faced by people living in Maluti-a-Phofung Local Municipality [36, 37].

Participants

Study participants were recruited by FM (the principal researcher) using purposive sampling. In purposive sampling, participants are included in a study because they have experienced the phenomenon under investigation and can provide needed information [31]. Youth who participated in the intervention and intervention implementers were specifically recruited. The inclusion of both youth and intervention implementers was influenced by the need to obtain holistic views and experiences of the intervention. Youth were included in this study if they participated in the intervention; and were willing to provide informed consent/assent. Intervention implementers were eligible to participate in this study if they delivered the intervention; and were willing to give informed consent.

Prospective participants were contacted via phone or visited in their homes to explain the study and provide them with information sheets and consent/assent forms. Those interested in the study contacted FM by phone or approached him directly for consent/assent forms. Participants aged 18 years and over gave written informed consent, and those aged under 18 years provided assent and parental consent if they agreed to participate.

Data collection

Data collection was conducted between June and July 2021 (approximately four months after the delivery of the intervention). Semi-structured individual interviews which were 45-60 minutes long and moderated by FM were used to collect data. The days and time of the interview were discussed with the participants and each interview was conducted at their convenience. All interviews took place in private and comfortable rooms within participants' homes. An interview guide with open-ended and probing questions to help stimulate conversation and obtain further information from participants was used. The guide elicited information about participants’ perceptions of the intervention including their involvement in the intervention, impact of the intervention, barriers and facilitators to the implementation of the intervention and recommendations for the intervention. Additionally, the guide included questions to obtain participants’ socio-demographic information. The interview guide was written in English language as 98% of South African youth are fluent in English language [38]. However, during the interviews participants were asked to respond to the questions in their preferred language (either in English and/or Sesotho) to allow for effective expression of their experience with the intervention. The interviews were
audio-recorded with permission from the participants. Field notes were taken during the interviews to complement the audio-recordings. Data was collected until data saturation was achieved [39].

Data analysis

The interview recordings were transcribed verbatim and if in SeSotho language translated into English language by bilingual research assistant. Before analysis, FM reviewed the transcripts for accuracy by listening to the audio-recordings while reading the transcripts. Thematic analysis approach, in which patterns within the collected data are identified, analysed and reported was used to analyze the transcribed data [40, 41]. Initially, transcripts were read several times prior to coding as a familiarization process. This was followed by line-by-line coding of the raw data and organising similar codes into meaningful themes and subthemes. The analysis was undertaken by FM and cross-checked independently by EA, ATB and MZ (co-researchers). Final themes were arrived at through consensus discussion among members of the research team. Furthermore, all the participants were given the emerging themes and illustrative quotes to validate the findings. The consolidated criteria for reporting qualitative research checklist informed the presentation of the findings [42]

Ethical consideration

Ethical approval to conduct the study was received from the Edith Cowan University Human Research Ethics Committee in Australia (2019-00925) and Human Sciences Research Council Research Ethics Committee in South Africa (5/19/02/20). Permission to undertake the study was also obtained from the management of the not-for-profit organization. The study was described to the participants and all of them provided written informed consent/assent before the interviews. To maintain confidentiality, pseudonyms were used instead of participants’ real names. Participants and researcher observed all Coronavirus disease of 2019 (COVID-19) precautions throughout the study.

Results

Socio-demographic information of study participants

Overall, 10 youth and four intervention implementers were interviewed. The age of the youth ranged from 17-23 years. Six of the youth were males and had secondary education, and nine of them attended all 12 intervention sessions. In terms of intervention implementers, their age ranged from 38-53 years, all of them were females, and three of them had five years of experience delivering the You Only Live Once intervention. Participants’ socio-demographic information are presented in Table 1.

| Table 1 | Socio-demographic information of the participants interviewed |
Participants’ perceptions of the intervention

Three key themes relating to participants’ perceptions of the intervention were derived from the data: (1) Acceptability and impact of the intervention; (2) Factors influencing intervention implementation; and (3) Recommendations to improve intervention implementation. The themes are discussed below.

Theme (1): Acceptability and impact of the intervention

This theme describes how participants experienced the intervention, and their views on the effect of the intervention on youth. When asked about their involvement in the intervention, youth provided positive feedback about their experience of participating in the intervention. They appreciated the content of the intervention which they viewed as comprehensive and effective to address their needs. Also, youth valued the participatory methods used to deliver the intervention, such as role-plays which they described as
‘funny’ or ‘interesting’. Furthermore, youth reported their satisfaction with the delivery of the intervention using a group approach as it provided them with an opportunity to socialize with peers. Additionally, they were satisfied with the frankness with which intervention implementers delivered the intervention. They felt that the intervention implementers had delivered the intervention with fidelity.

“...when I attended the program, the first session...it was encouraging because I saw different people like the people I knew...but with different faces around the community, you see that's one thing that encouraged me.” (Snake, male youth aged 22)

“...a spade was called a spade sir, it was not called a garden tool so we were able to understand better with nothing being...hidden from us...” (Tebello, male youth aged 17)

“I kept on attending because I saw that it’s changing me, coming to the sessions is changing me.” (Lulonke, female youth aged 20)

“...it’s funny being there.” (September, female youth aged 20)

The intervention implementers also shared similar positive sentiments about their perceptions of the intervention.

“...it is a good program because it teaches...the children many things.” (Nthabiseng, intervention implementer aged 53)

“I think the YOLO program is...a nice program...especially when it comes to the young children...” (Maoudi, intervention implementer aged 40)

In addition to reporting positive feedback about their engagement with the intervention, participants also mentioned several positive impacts of the intervention on youth. Youth spoke of the increase in awareness of the health consequences of risky sexual behaviors by participating in the intervention. In addition, some youth indicated that they now knew more than before the intervention about social skills, such as resilience and relationship-building skills.

“...with the information that has been provided to us as young people by the program, it makes you feel like I don't want to do this anymore...What if I die young?” (Peace, female youth aged 17)

“...it also helped me to know how to overcome situations in life.” (Tebello, male youth aged 17)

“...I did not have a great relationship with my...guardian [parent] to be honest because of the behavior that I had but when I came here I was...made aware that the reason why I’m not in a great...relationship with my...guardian is because of my behavior.” (Lulonke, female youth aged 20)

Also, participants reported that the intervention had fostered positive behavior change among youth. Some youth stated that after the intervention they had reduced risky sexual behaviors, such as multiple sexual partnerships. Furthermore, two intervention implementers mentioned that the intervention had
helped in the reduction of school absenteeism. Additionally, some youth revealed that the intervention helped them to disseminate some of the skills and knowledge acquired from the intervention to their peers.

“...I now do not have boyfriends...I just I saw that they are not important.” (Lulonke, female youth aged 20)

“...they [youth] don't attend school but...the parents said...after attending YOLO this child has made some changes.” (Mirriam, intervention implementer aged 40)

“...it made a really positive impact...on me actually because now I can tell other people about this YOLO program you know and how it...really helped me change my life...” (Solomon, male youth aged 21)

However, one youth did not believe that the intervention had made any difference in mitigating risky sexual behaviors among youth.

“...some of us who have attended YOLO there are still others who are still continuing doing risky behaviors...” (Akayang, female youth aged 22)

Furthermore, participants indicated that the intervention helped promote self-confidence of youth, particularly through delivering the intervention using a group approach.

“I was sometimes afraid of standing in front of people and telling them how I feel, how I grew up, how I experience such big things but then now I am too confident enough to say okay 'this is this, this stops here'.” (September, female youth aged 20)

“...other participants were shy to talk but when they meet the participants or the other children they can talk, they can express their feelings....” (Maoudi, intervention implementer aged 40)

Additionally, some youth commented on the positive effect that the intervention had on their relationship with parents and peers.

*But the moment I started coming here that alone because I come here...and then go home that helped me build my relationship with my mother again and then it took me out of many troubles.” (Lulonke, female youth aged 20)*

“...it also helped me in making friends not friends who are negative but yeah positive friends.” (Tebello, male youth aged 17)

**Theme (2): Factors influencing intervention implementation**

This theme consists of five subthemes and describes factors that participants perceived as impeding or enhancing implementation of the intervention. The subthemes are: (a) intervention-related factors; (b) intervention recipient-related factors; (c) intervention implementer-related factors; (d) implementing organization-related factors; and (e) external context-related factors.
(a) Intervention-related factors

Duration of the intervention was reported as a barrier. Some youth indicated that the duration of the intervention was very short which negatively impacted intervention implementers’ ability to explain in detail all the topics and activities in the intervention curriculum. Moreover, youth perceived the short duration of the intervention had a negative impact on in-depth understanding of some of the information from the intervention.

“We were taught but you know time is very limited for the facilitator [intervention implementer] to be able to elaborate on that, yes on those topics, you see.” (Akayang, female youth aged 22).

“…this YOLO program…it comes and goes after a short period…when we are trying to get more deeper it just ends.” (Thato, male youth aged 17)

Furthermore, other youth revealed that the days and times of the intervention sessions conflicted with other commitments, such as school which prevented them from committing to all the sessions and intervention activities.

“…one thing that bothered me is that during the time… I did not have much time to focus on the program and all the contents of the program…I was busy schooling and helping with my tutoring work.” (Snake, male youth aged 22)

“…in order to attend sessions I had to sacrifice my studying…hours….“ (Rhizo, male youth aged 20)

(b) Intervention recipient-related factors

Participants reported that lack of commitment from youth in the form of poor attendance and distractions of intervention activities hindered implementation of the intervention.

“…some they didn’t attend, they can come and leave before the session is over.” (Mirriam, intervention implementer aged 40)

“…can you imagine standing in front of people and pouring your heart and they do laugh at you. That thing was so discouraging, I even wanted…stop attending the sessions because I felt like we were just playing games.” (Lulonke, female youth aged 20)

Additionally, one youth and intervention implementer also indicated that some youth did not take part in intervention activities due to shyness.

“I remember when we were writing the rules some… didn’t want to write….they were shy…” (Snake, male youth aged 22)

“…some of the participants, they were too shy, they didn’t take part…” (Mirriam, intervention implementer aged 40)
In addition, having misconceptions about the intervention can create feelings of discontentment towards the intervention. One participant revealed,

“At first when I started attending the sessions I found them boring. I thought they were just time wasting, they were gonna preach to us about sex and alcohol, substance abuse and all that.” (Lulonke, female youth aged 20)

Furthermore, one intervention implementer mentioned that the delivery of the intervention in English language hindered implementation of the intervention as some youth had difficulties in expressing themselves in English language.

“...it was tough, communication among the participants because others speak SiZulu and others speak Sesotho so it was difficult for them to communicate because some of the participants cannot use English.” (Portia, intervention implementer aged 38)

Contrary, perceived benefits of the intervention which included incentives and refreshments for intervention participants, and opportunity for social interaction with peers was reported as a facilitator of attending the intervention. Some youth mentioned that they were encouraged to attend the intervention due to the benefits they associated with attending the intervention.

“What motivated me is hanging out with my fellow youth...” [Thato, male youth aged 17]

“Honestly speaking what attracted me was food...” (Peace, female youth aged 17)

“So this certificate actually was one of the things that encouraged me to get into...the program”. (Solomon, male youth aged 21)

(c) Intervention implementer-related factors

One of the reasons youth felt facilitated their participation in the intervention included having a friendly intervention implementer that they could express their views without being judged.

“...we were able to express our feeling, we were able to speak our points of view and...we were free to speak up with our teacher [intervention implementer]...” (Tebello, male youth aged 17)

Additionally, active recruitment of youth by intervention implementers was also reported as having played a role in encouraging some youth to attend the intervention.

“Honestly before I started attending, I didn't know whether I wanted to come or not, the facilitator [implementer] just came and then asked that I should come...That’s why I came.” (Lulonke, female youth aged 20)

(d) Implementing organization-related factors
There were challenges with the venue of the intervention sessions reported by participants, which they viewed as unfriendly and inappropriate. Limited funding to purchase adequate stationery and refreshments for youth was also a concern raised by participants.

“...we didn’t have...that space...venue actually where we were... completely like calm and free...so that we can do our activities...” (Solomon, male youth aged 21)

“The problem that was there lack of money, yes...” (Nthabiseng, intervention implementer aged 53)

(e) External context-related factors

Changes in weather was highlighted as a barrier to attendance and participation in the intervention among youth. This could be linked to the lack of a friendly and appropriate venue.

“For the one session I did not attend it was a very cold weather so I was ‘no I’m not gonna go there, I’m gonna freeze...” (Akayang, female youth aged 22)

“...sometimes it’s hot, too hot, they are not listening because of the sun is too much, sometimes it’s cold, they want to go [home] fast...” (Nthabiseng, intervention implementer aged 53)

Furthermore, another participant narrated how the outbreak of Coronavirus disease of 2019 [COVID-2019] limited the implementation of some group activities.

“...we can’t holding each other showing support because of COVID [Coronavirus disease], so we have to follow the rules...” (Mirriam, intervention implementer aged 40)

Parental influence, whether positive or negative, impacted youth participation in the intervention. While some parents were in support of their children attending the program, others prohibited them from attending.

“Hey some parents are stubborn...when they hear sex it’s like ‘...you are going to teach our children naughty things” (Maoudi, intervention implementer aged 40)

“The parents motivated them and encouraged them to attend YOLO.” (Mirriam, intervention implementer aged 40)

In addition, some youth indicated influence from peers to have encouraged them to attend the intervention.

“...I was told by...one of the learners that...attended the program before...” (Solomon, male youth aged 21)

Furthermore, the availability of similar youth interventions in the community was cited as a facilitator. Participants perceived the availability of similar youth interventions in the community to have facilitated youth's understanding of the information obtained from the intervention as the youth had similar experience from other programs in the community.
“…it helped me also in…gaining more knowledge because some of the things that we…did in the program are things that…we do also at school…in subjects like Life Orientation…English…Social Studies…” (Solomon, male youth aged 21)

“I think after YOLO program…they take it serious because there are…some of NGOs [non-governmental organizations] that are doing awareness…even at the clinic they are doing the awareness.” (Mirriam, intervention implementer aged 40)

**Theme (3): Recommendations to improve intervention implementation**

Participants’ suggestions on how the implementation of the intervention could be enhanced generated this theme. Most of the recommendations were a converse of the perceived implementation barriers and are presented according to the following four subthemes: (a) intervention-related recommendations; (b) intervention recipient-related recommendations; (c) implementing organization-related recommendations; and (d) external context-related recommendations.

(a) Intervention-related recommendations

Following experience of the intervention as a youth or intervention implementer, suggestions such as making the intervention more accessible to youth by extending its implementation to social media platforms, communities, schools, clinics and churches were made. In addition, participants recommended increasing the duration and dosage of the intervention. They also suggested improving the content of the intervention by adding more funny or interesting activities, and topics on sexual health and career guidance. Moreover, they recommended linking the intervention with other services in the community to make it more youth-friendly.

“…you know like social media platforms it needs to be there because there are many youth…on those… platforms…” (Solomon, male youth aged 21)

“…so if we can get more hours for… the facilitator [intervention implementer] to teach and you know make us understand…” (Akayang, female youth aged 22)

Another suggestion to improve YOLO is for the program to have more activities.” (Bafo, male youth aged 18)

“…as…it deals with things…that include…sexual behaviors…they have to give…the individuals those things [e.g., condoms] that will help them prevent…” (Solomon, male youth aged 21)

(b) Intervention recipient-related recommendations

Participants recommended empowering youth to deliver the intervention. They also suggested providing youth with information on trending methods of preventing HIV, such as pre- and post-exposure
prophylaxis.

“I so wish that the You Only Live Once programs could take at least two participants in every group and train them to host You Only Live Once programs and also hosts events whereby these two participants could share to other youngsters about how this program changed their lives.” (Peace, female youth aged 17)

“...the program must also...teach the youth about the PEP [post-exposure prophylaxis] and the PrEP [pre-exposure prophylaxis].” (Lulonke, female youth aged 20)

(c) Implementing organization-related recommendations

Recommended additions included increasing the number of intervention implementers. They also proposed having a more appropriate and friendly venue for the intervention sessions. Furthermore, participants suggested increasing the intervention's funding.

“We need to involve...more facilitators [intervention implementers] so that we can get more young people into this program.” (Akayang, female youth aged 22)

“...they must improve the money...” (Nthabiseng, intervention implementer aged 53)

“...if they can provide us with the space where we can do the YOLO without doing the YOLO in our homes...” (Maoudi, intervention implementer aged 40)

(d) External context-related recommendations

Participants recommended involving parents in the intervention. Furthermore, they suggested recruiting vulnerable youth into the program, such as those from child-headed households, youth living with HIV and younger youth.

“...it will be much better if we were to involve our parents in this YOLO program so we can spend more time with them.” (Thato, male youth aged 17)

“...others are parents themselves, they are staying with the children...they are the ones who are the parents to those children, so even them should be approached so that they know what to do...” (Nthabiseng, intervention implementer aged 53)

Discussion

This study explored the perceptions of youth and intervention implementers of a resilience-based HIV prevention intervention aimed at reducing risky sexual behaviors among youth in South Africa. Findings suggest that You Only Live Once intervention is acceptable to youth in South Africa. Participants valued the content of the intervention which they reported as comprehensive and effective to address youth's needs. These findings emphasize the importance of developing and delivering interventions that are
compatible with the values and aspirations of the target population as people are more likely to use an intervention when they perceive it to meet their needs [43, 44]. Additionally, youth mentioned that they liked the delivery of the intervention using a group approach. These findings could be due to the safe space the program created for youth participants to learn and voice their concerns in a supportive non-judgemental manner. Furthermore, young people are more likely to participate in a group setting as it promotes social learning and development of relationships [27, 45]. Youth also stated that they were satisfied with the delivery of the intervention using participatory methods. These findings could be as a result of the opportunity for critical thinking and behavior change that participatory approaches provide to intervention participants [46]. In addition, youth perceived the intervention implementers to have delivered the intervention with fidelity. These findings highlight the importance of implementing interventions with fidelity as it promotes success of an intervention [27].

Participants perceived the intervention to have fostered positive behavior change among youth, including reduction in risky sexual behaviors (e.g., multiple sexual partnerships), school absenteeism, and dissemination of information learned from the intervention to other peers. Participants also viewed the intervention to have improved mediating factors that influence risky sexual behaviors among youth, such as sexual health knowledge, self-confidence and relationships with parents and peers. The You Only Live Once intervention comprised of topics and activities to build youth's sexual health knowledge, self-confidence and relationships with parents and peers which may have contributed to positive outcomes observed in this study. Findings of this study complement those of the quantitative component which revealed that the intervention can foster positive behavior change and improve mediating factors that affect risky sexual behaviors among youth [25]. Furthermore, findings of this study suggest that intervention has the potential to reduce youth's vulnerability to HIV as behaviors which participants reported were positively impacted, such as multiple sexual partnerships [7 - 9] and school absenteeism [47] are risk factors of HIV infection among youth. The dissemination of knowledge obtained from the intervention to other peers implies a transfer of benefit from those participating in the intervention to others in the wider community which can increase community awareness about the intervention. Additionally, the mediating factors that affect risky sexual behaviors among youth which participants mentioned were positively impacted, including increased sexual health knowledge [11, 12], self-confidence [27, 48], and improved relationships with parents and peers [49, 50] facilitate healthy sexual behaviors among young people.

This study also found barriers to the implementation of the intervention. Duration of the intervention was perceived by participants to be too short and did not support in-depth assimilation of all intervention topics. There is need to extend the duration of the intervention to enable intervention implementers to explain in detail all topics and activities in the intervention curriculum and facilitate youth to reflect on and understand intervention information [51]. Lack of commitment from youth was one of the identified barriers. This finding could be as a result of lack of information about the program's importance amongst youth. Intervention implementers should sensitize youth about the importance of participating in HIV prevention programs targeting young people to enhance their involvement in the intervention. Other reported challenge was language barrier as some youth had difficulties in expressing themselves in
English language. To promote youth's understanding of information from the intervention, there is need to deliver the intervention in both English and/or native language or in a widely spoken language in the locality. Other mentioned barriers were rooted within the implementing organization, including lack of an appropriate and friendly venue for intervention activities and limited funding to purchase enough stationery and refreshments for intervention participants. This may be due to less infrastructural, financial and human resources for implementation by the organization. These results concur with those of other studies [27, 52, 53]. This stresses the need for funders, such as the South African Department of Social Development and South African National Lotteries Commission to allocate adequate funding to organizations in economically disadvantaged communities to promote intervention implementation.

Resistance from parents towards youth being recruited into the intervention was one of the reported barriers. These findings are consistent with those of previous interventional studies [54, 55]. To facilitate recruitment of youth into the intervention, there is need to sensitize parents and community members to accept and motivate youth to participate in youth-focused HIV prevention initiatives.

Furthermore, the present study identified facilitators to the implementation of the intervention. Youth cited having a friendly intervention implementer as one of the reasons for participating in the intervention. These findings coincide with those of other studies [27, 54] and highlight the importance of equipping implementers with youth-friendly skills and knowledge when working with the youth. Perceived benefit of the intervention, including refreshments and incentives organized for intervention participants was also mentioned by youth as a motivating factor for attending the intervention. This could be as a result of majority of the youth in our study coming from economically challenged families. These results support those of previous research [27, 54]. There is need to provide incentives and refreshments to youth, specifically in economically disadvantaged communities to enhance their attendance of the intervention.

Availability of similar youth interventions in the community was perceived by participants to have enhanced youth's understanding of the information learnt from the intervention. These findings suggest the need to link the intervention with other programs in the community to enable youth's understanding of the information from the intervention [56].

Recommendations to improve the implementation of the intervention were also highlighted. Increasing the accessibility of the intervention to youth by extending its delivery to social media platforms, communities, schools, clinics and churches was one of the recommendations made. Research shows that use of social media has increased significantly among young people in Sub-Saharan Africa [57, 58]. This highlights the importance of incorporating social media in the design, implementation and evaluation of interventions targeting youth to increase the accessibility of the intervention to the youth.

Youth proposed empowering them to deliver the intervention. Engaging youth in interventions for young people could promote sense of ownership of the intervention which is critical for enhancing intervention success [59]. There is need for intervention implementers to involve youth as partners in implementing interventions targeting young people to promote program implementation. Offering youth with information on emerging HIV prevention methods, such as pre- and post-exposure prophylaxis was one of the suggestions reported. Evidence suggests that pre- and post-exposure prophylaxis is an effective HIV prevention strategy and acceptable to youth [60-62]. There is need to include information on pre- and
post-exposure prophylaxis in the intervention curriculum to enhance youth to have correct information about this method. One of the suggestions included involving parents in the intervention. Involving parents in interventions targeting youth can facilitate parent-youth communication about sensitive issues, such as sex; parental monitoring of youth to reduce risky sexual behaviors; and reduction of youth’s involvement in risky sexual behaviors [63-65]. This strengthens the need to involve parents in the intervention to promote its implementation.

The present study has some limitations that should be considered when interpreting its findings. The study was conducted among youth and intervention implementers at a single organization in Maluti-a-Phofung Municipality, South Africa and hence caution should be taken when generalizing the findings to other settings, populations and interventions. In addition, the transferability of the findings could be limited due to the small number of participants interviewed. Furthermore, it is possible that during the interviews some participants could have given socially desirable responses which may affect the validity of the findings.

However, the current study is one of a kind that explored the perceptions of youth and intervention implementers of a resilience-based HIV prevention intervention designed to reduce risky sexual behaviors among youth in South Africa. Although the study was conducted in one location, its findings are transferable to similar settings in Sub-Saharan Africa with high incidence and prevalence of HIV amongst young people. The study adds to knowledge on the acceptability, impact and barriers and facilitators of resilience-based HIV prevention interventions targeting youth in South Africa and similar contexts. The current study has allowed better understanding of the intervention’s impact obtained from the quantitative component [25] by providing findings on the acceptability and impact of the intervention, and factors that hindered and promoted implementation of the intervention. Furthermore, the inclusion of both youth and intervention implementers could have provided diverse perceptions about the intervention. Findings of this study could inform research, policy and practice aimed at enhancing HIV prevention interventions for young people.

Future studies should interview managers involved in implementing, designing and funding the intervention to obtain their perceptions of the intervention. Furthermore, future research evaluating the impact of the intervention should use qualitative methods to complement quantitative methods to prevent limitations associated with strictly quantitative approaches [26, 31].

**Conclusion**

Resilience-based interventions are increasingly acknowledged as a multifaceted approach to mitigate risky sexual behaviors associated with HIV infection among young people but little is known about how relevant stakeholders, such as youth and intervention implementers perceive such interventions. Participants viewed the *You Only Live Once* intervention as essential and supportive in promoting positive behavior change among youth and fostering their sexual health and social skills knowledge; self-confidence; and relationships with parents and peers. Findings indicate that several intervention-related,
intervention recipient-related, intervention implementer-related, implementing organization-related and external context-related factors impeded or facilitated the implementation of the intervention. The study contributes to knowledge on the acceptability, impact and barriers and facilitators of resilience-based HIV prevention interventions directed at youth in South Africa and similar settings. Findings of this study can aid policy makers, researchers and healthcare practitioners in the field of HIV prevention to enhance interventions targeting youth.

Abbreviations


Declarations

Acknowledgments

The authors are indebted to the youth and intervention implementers who participated in this study. They also thank Dibuseng Hlongula (research assistant) for transcribing and translating the interviews.

Authors’ contributions

Conceptualization and design of the study was done by FM, EA and ATB. FM conducted the interviews, analyzed data and wrote the first draft of the manuscript. EA, ATB and MZ reviewed the analyses and revised the manuscript. All authors read and approved the final manuscript.

Funding

Edith Cowan University funded the study under a Higher Degree by Research Scholarship granted to FM. The views expressed in this paper are those of the authors and do not represent those of Edith Cowan University.

Availability of data and materials

The data that support the findings of this study are available and can be obtained from the corresponding author upon reasonable request.

Ethics approval and consent to participate

All participants provided written informed consent/assent before taking part in the study. The Edith Cowan University Human Research Ethics Committee in Australia (2019-00925) and Human Sciences Research Council Research Ethics Committee in South Africa (5/19/02/20) approved the study. The
management of the non-profit organization where the study was undertaken also gave permission to conduct the study.

**Consent for publication**

The study was explained to all participants, including informing them that findings will be published in a peer-reviewed journal, and they all gave written informed consent/assent.

**Conflict of interest**

The authors disclose that they do not have conflict of interests.

**Author details**

¹School of Nursing and Midwifery, Edith Cowan University, Joondalup, Western Australia 6027, Australia.

**References**


8. Zgambo M, Arabiat D, Ireson D. "We just do it ... we are dead already": exploring the sexual behaviors of youth living with HIV. J Adolesc 2022;94:34–44.


34. South African Children's Act [No.38 of 2005].


