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Principals' strategies for the effective management and implementation of HIV intervention programmes for adolescent girls in secondary schools

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The goal of this study was to understand the approaches that principals use for HIV prevention in schools and, on that basis, to offer strategies that can be effectively implemented to improve HIV intervention programmes for adolescent girls in South African secondary schools. The research was conducted in four districts in the Gauteng province: Johannesburg, Ekurhuleni, Tshwane and Sedibeng. A non-experimental qualitative, explorative, phenomenological design was used to better understand the problem. Individual interviews were conducted with participants who were purposively chosen from secondary schools in these areas. According to the findings, strengthening the delivery systems for HIV intervention programmes for adolescent girls may be the key to combating the escalation of new HIV infections among these girls. This qualitative study produced participant-reported empirical data, giving researchers a new perspective on the education leadership matters that contribute to addressing the ineffective management and execution of HIV programmes for adolescent girls.

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Introduction

One of the most serious communal health problems in the Republic of South Africa (RSA) is HIV/AIDS. This presents a huge problem for school administrators in the Gauteng province, where this research took place. The purpose of this research was to learn more about the role of school principals as key officers in HIV prevention at secondary schools, particularly among adolescent girls. To this end, the study investigated the management strategies that school principals use to facilitate and improve adolescent girls' school-centred HIV/AIDS intervention programmes.

Adolescent girls and young women in South Africa between the ages of 15 and 24 are among the population groups with the highest risk of contracting HIV. According to Govender et al. (2022), approximately 35% of all new HIV infections in South Africa occurred in 2017, when an estimated 70,000 adolescent girls and young women contracted the virus. HIV prevalence is recently at 5.8% among females aged 15 to 19 (Simbayi et al. 2019). Adolescent girls and young women aged 15 to 24 have the highest annual HIV incidence of any subpopulation (1.5%), with associated HIV-related deaths estimated to be 3900 per year on average (Govender et al. 2022). If the observed trend continues on its current course, hundreds of thousands more people will test positive for HIV in the coming years. Accelerated efforts and a more concentrated focus on addressing the adolescent epidemic will be necessary to turn the tide against HIV (UNICEF, 2020).

According to global evidence, adolescent girls are disproportionately vulnerable to HIV infection due to increased physiological risk, gender inequality, unequal gender norms, and gender-based violence, including intimate partner violence (UNAIDS, 2016; Hardee et al. 2014; Harrison et al. 2015; Mabaso et al. 2018). Shisana et al. (2009) further explain that women are more likely than males to be at risk of contracting HIV during unprotected vaginal sex. The infection risk is even higher for adolescent girls because of the immaturity of their vaginal linings. The likelihood of tissue rips during sex hastens HIV transmission among adolescent females.

As discussed above, the high rate of new HIV infections among adolescent girls is especially concerning (Chimbindi et al. 2020). Despite numerous school-centred HIV/AIDS interventions, the infection rate continues to rise (Visser, 2017; UNAIDS, 2019). This could imply that such interventions have failed to reach adolescent girls (Letsela et al. 2021). On the same note, Mahmood (2021a) suggests the empowerment of females and women as a route for dealing with challenges that are associated with, or cause HIV/AIDS. According to Mahmood (2021a), health education/workplace intervention is crucial, and should include prevention training by government sectors, Non-Government Organisations (NGOs), and civil society about sexual harassment, Workplace Violence (WPV), and Intimate Partner Violence (IPV). In another article, Mahmood (2021b) emphasises the importance of training on this topic as well. Mathur et al. (2020) argue that to combat the HIV epidemic, prevention programmes should reach adolescent girls, who are statistically more vulnerable to infection.

Moyo and Smit (2017) point out that there is an urgent need for a school leadership cluster that is health-orientated. Principals are confronted with intensified HIV prevention attempts to help curb new HIV infections in adolescent girls. As a result, there is a need for leadership that is capable of making a significant contribution to all school-based HIV intervention programmes. While many principals have supported the need for health programmes (Moyo and Smit, 2017), there is limited research to suggest that schools are equally concerned with the sexual and reproductive health needs of adolescent girls.

The HIV/AIDS pandemic has, among other things, changed school leadership roles in South African schools, rendering the

roles more difficult and complicated. Many complex educational guidelines must thus be addressed by school administrators, who frequently have limited support or mentoring in doing so (Quin et al. 2015). Further to this, school administrators must consider the special needs of young women and adolescent females while also acknowledging how HIV and AIDS are disrupting the lives of students, which is now impossible to ignore. This is evidently true because controlling pedagogical practices to improve learning, and carrying out national policies are no longer the 'easy' tasks that they once were (Pont, 2014; Bialobrzska et al. 2010).

By implementing prevention techniques, schools are tasked with taking the lead, managing, and reducing the effects of HIV and AIDS. It has been argued that many principals in South African schools are unprepared to meet these expectations, which place unreasonably high demands on them, particularly those in underfunded schools (Bialobrzska et al. 2010; Wood and Webb, 2008). However, when one considers the terrible circumstances and the scope of the HIV and AIDS epidemic, one must look beyond the immediate and obvious purposes of schools.

According to UNAIDS (2013), principals are supposed to act as role models, important information stewards, and promoters of a healthy learning environment. Although there are several HIV and AIDS training programmes for school administrators, nothing seems to have been accomplished in terms of fostering a greater grasp of the leading, managing, and implementation complexity of HIV intervention programmes (Wood and Webb, 2008). There seems to be a dearth of training programmes for principals that would enable them to provide the kind of direction that would ensure that teachers and adolescent girls at risk continue to attend schools with high standards of excellence, compassion, and care (Wood and Webb, 2008).

The Department of Basic Education (DBE) conceived different policies to support a framework that promotes the viability and effective implementation of the HIV/AIDS policy at schools. In line with section 3(4) of the National Education Policy Act, 1996 (Act No. 27 of 1996), the principal is in charge of carrying out this policy in practice at the school, and ensuring a sufficient level of safety. The stated responsibility is primarily of a managerial nature. It is possible that this additional managerial responsibility may be viewed negatively as adding to the workload of the school leader, who now oversees a more susceptible, reformatted, and restructured educational environment (Rayner, 2007).

HIV and AIDS prevention programmes have become an important component of Life Orientation (LO) in the South African public school curriculum (DoE, 2002; Fatoba, 2013). It has been observed that meeting the objectives of school-based HIV interventions programmes is difficult. In Kenya, a sizeable number of effective school-based interventions have been instituted across the country, but have yet to yield any tangible results. Principals who possess strong leadership and management abilities are essential to the success of schools (Clarke, 2012). The impact of HIV/AIDS, as noted by Louw et al. (2009), poses a threat to the South African educational system. As the epidemic worsens, and a significant number of adolescent girls become infected, it leaves principals with growing managerial challenges (Hewu-Banjwa, 2012).

Many prevention programmes, such as DREAMS, Love Life, and Soul City, have introduced HIV prevention interventions for adolescent girls with variable degrees of effectiveness because of the particular difficulties, worries, and vulnerabilities they experience (McClure et al. 2014). According to Pont (2014), school-based interventions to address HIV/AIDS challenges have placed enormous responsibilities on school leadership, particularly principals, who are expected to understand the most fundamental technical aspects of the services

provided. Nonetheless, Moyo and Smit (2017) argue that given the magnitude of the impact of HIV on adolescent girls, principals may be overwhelmed. While management and leadership training courses are effective in most cases, they are frequently insufficient to provide all the necessary skills (Naidoo et al. 2015; Quin et al. 2015).

Studies by Mark et al. (2017), and find that monitoring and evaluation are also essential parts of HIV and AIDS intervention programmes. In Mark et al.'s (2017) work, thorough monitoring and evaluation are highlighted as necessary to keep track of the funds spent, the tasks carried out, and the services provided, as well as to assess the results attained and the overall impact made. Further to this, Mark et al. (2017) argue that school principals must be knowledgeable about both relevant external events (such as community and stakeholder concerns, governmental policies, and technological advancements), and the internal operations of their work unit (such as the effectiveness of processes, the status of programmes, the skills of subordinates, and the quality of products and services). Therefore, a leader without sufficient monitoring skills will not be able to identify issues before they become serious, give appropriate recognition of subordinate accomplishments, identify subordinates who need coaching or assistance in carrying out their work objectives, or accurately detect problems before they become serious.

Schools are change agents, and as they house a large number of youths, they may be helpful in mitigating the effects of HIV/AIDS (UNAIDS, 2016). Much research has been done on how HIV/AIDS affects education and how education can be used to stop the spread of HIV (Buchel, 2006; Rajagopaul, 2008; Mason-Jones et al. 2016). However, extensive readings suggest that there is a knowledge gap in HIV/AIDS intervention programmes for girls. The researchers are unaware of any other study that specifically examines the management of implementation strategies for HIV/AIDS intervention programmes for adolescent girls at secondary schools, which was the main focus of this study. There is also limited evidence about principals' role as key officials in the administration and implementation of HIV/AIDS intervention programmes for adolescent girls.

This study assumed that programme management strategies may be required to improve the effectiveness of HIV/AIDS interventions for adolescent girls. As a result, this study aimed to answer the following question: What strategies for the effective management and implementation of HIV intervention programmes for adolescent girls in secondary schools can be deduced from conversations with school principals?

Theoretical framework

Since the beginning of the global HIV/AIDS outbreak, which has negatively impacted other major economic and social prospects, it has become clear that transformational and potent leadership is necessary for a successful community response (Jaroliya and Gyanchandani, 2021). However, there are several leadership styles or theories that are associated with the understanding of endemics such as HIV/AIDS. Of all mitigation strategies, transactional leadership is a well-known alternative to transformational leadership. Bass's (1985) work identified two components of transactional leadership, namely: contingent reward, and management by exception. On the one hand, contingent reward entails active and positive exchange between leaders and followers, where followers are rewarded for achieving predetermined goals. On the other hand, management by exception is concerned with leaders interacting with followers either actively or passively by focusing on mistakes, delaying decisions, or avoiding situations until problems arise.

In light of this research's phenomenon – HIV and AIDS, focusing on students' mistakes and waiting for students to

experience the problem, that is, being infected with the disease, before attending to the situation is an unwise thing for leaders to do. The core beliefs and aspirations of leaders are what often determine the relevance and usage of any given leadership theory or style, particularly in relation to the problem that leaders intend to address or resolve. Regardless of different leadership frameworks, it is crucial to note that good leadership does not always ensure success, particularly in HIV/AIDS mitigation (Szekeres et al. 2008). Also of importance is the discovery that growth and success are nearly impossible without effective transformational leadership (Szekeres et al. 2008).

Based on the argument above, this study's theoretical lens was framed by the Transformational Leadership Theory developed by Bass in 1985, which emphasises transformative leadership behaviours. This theory or approach is designed to demonstrate, comprehend, and justify specific behaviours and actions that leaders take to enhance overall organisational performance and results (Bass, 1985). According to this notion, transformational leaders demonstrate idealised influence, inspirational motivation, customised consideration, and intellectual stimulation in their everyday contacts with the team or subordinates (Bass, 1991).

In this research, as detailed in earlier studies (Abbas and Asghar, 2010), the researchers are aware that leaders who have sought to address certain organisational or institutional changes and problems have failed to achieve or have achieved little because they saw the problems before them as time-bounded problems. In many cases, this has led to leaders using a reward system for accomplishing or meeting goals and performance criteria. According to Aarons (2006), this supports transactional leadership, but contradicts transformational leadership, whose essence is to create organisational change. This change is brought about by emphasising new values and a vision of the future that transcends the status quo (Bass and Avolio, 1994). This is what the HIV/AIDS policy and the intervention programme in South African secondary schools aim to achieve.

Aarons (2006) argues that transactional leadership is based on 'exchanges' between the leader and the follower, in which followers are rewarded for meeting specific goals – which, by extension, implies that leaders provide rewards and positive reinforcement. Nonetheless, Bass (1985) and Fischer (2016) uphold two central arguments of Transformational Leadership Theory. These are: (1) It goes beyond transactional behaviors by intellectually stimulating and inspiring followers to put aside their own interests for the sake of a collective (team, unit) purpose (Bass, 1985), and (2) The transformational leadership style recognises areas for change and guides change by inspiring followers and creating a sense of commitment (Fischer, 2016). Leaning on Bass and Fischer's two central arguments, leaders (including school principals) would rather see themselves as part of a team that believes that problems can be best resolved or attended to if the people they are working with are better transformed in terms of required knowledge, and know how to innovatively deal with relevant problems and values.

Research methods and design

Study design. The researchers used a non-experimental, qualitative, phenomenological research design to address the question posed in this study. Creswell (2013:76) claims that a "phenomenological study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon". He further claims that "phenomenology is not only a description but also an interpretive process in which the researcher interprets the meaning of the lived experiences" (Creswell, 2013:76).

A phenomenological design offers researchers the best chance to engage in an intimate discussion of the lived experiences of

research participants. This is because in a qualitative, ‘participant-orientated’ research, participants are given the freedom to express themselves and their ‘lived experience’ stories as deemed fit, without being modified or reworked (Creswell, 2012).

Settings. The research was conducted in four districts in the Gauteng province of South Africa: Tshwane, Ekurhuleni, Johannesburg, and Sedibeng. These districts form part of the 27 districts that account for 82% of all people living with HIV in South Africa (SANAC, 2016). Most of the secondary schools selected are situated in HIV hotspot areas where transactional sex, and sex work are rampant. According to UNAIDS (2014), hotspots are defined as geographical areas or locations with evidence of high HIV prevalence or behaviour that puts people, particularly adolescent girls, at risk of acquiring HIV infection (SANAC, 2016). Hotspots, also known as high transmission and high burden zones, include mining areas, border towns, resettlement farms, and growth points (SANAC, 2016).

Ethics, population, and sampling. Both the population and the sample of a study point to the respondents or participants in a study. The appropriateness of researchers’ behaviour in relation to the rights of those who become participants in the study, or who are affected by it, is referred to as research ethics (Saunders et al. 2009). Potokri (2016) emphasises that research without respondents or participants is almost impossible. When discussing ethical issues and considerations in research, he thus uses the concept of ‘participants’ sovereignty’ to support the importance of research participants (Potokri, 2011, 2022). The population for the current study was secondary school principals in the Gauteng province who had overseen HIV programmes for adolescent girls for more than a year. Principals with less than a year’s experience in this regard were excluded because they might not have gained adequate experience in implementing these programmes. A purposive sampling technique was used to identify the study participants because the researchers sought participants who could provide rich and in-depth information (Creswell, 2008; Joubert and Ehrlich, 2010; Patton, 2015).

Data collection. Semi-structured individual interviews were used to collect data. The purpose of the interviews was to elicit textual and structural descriptions of the participants’ experiences, as well as to provide an understanding of their common experience of their roles (Creswell, 2013). These interviews were conducted virtually via Zoom at times that were convenient for both the researchers and the participants. Ten principals served as participants, and the in-depth individual interviews lasted 30–40 min each. With the participants’ permission, the interviews were audio recorded, and an interview guide gave direction to the interview

process. Probing, paraphrasing, and clarification techniques were used to elicit rich data.

Data analysis. The data collected were transcribed, gathered, coded, and categorised as part of the data analysis in this study (Creswell, 2007). The transcriptions of the interviews were subsequently systematically searched, compared, matched, and organised (Creswell, 2007). The responses were then classified into themes. The information was arranged and categorised into recurrent themes drawn from the participants’ daily experiences and life experiences. This was then compared with the reviewed literature in line with the underpinning theoretical framework of the study to demonstrate agreement or disagreement. This was done in order to validate the data for reasons of justification and verification.

Irrelevant information or data were discarded and rejected. The themes that emerged from the data analysis are addressed in later in this article, where the researchers present the data in response to the research question, and discuss the study findings.

Data coding procedure and process. Regarding the codes for this study, the researchers used prior coding (predetermined codes) to analyse the data. These codes were created by the researchers before looking at the collected data, with codes and themes being derived from the research question. Accordingly, the responses recorded in the transcribed interviews were divided into categories in line with the questions proposed in the interview schedule, which were influenced by the research questions. When the researchers interpreted the data, these categories and sub-categories were used as headings and sub-headings to organise the codes into groups and sub-groups.

Data

Demographic data gleaned from the interviews. The table below displays the selected participants and their profiles. The participants are identified using numbers, that is 1 to 10.

Interpretation of the demographic data. Table 1 shows that all of the participants had tertiary education, and that the principals’ ages ranged from 44 to 58 years. The table also indicates educational attainment, with 80% of the participants having knowledge of how HIV intervention programmes for adolescent girls are managed and implemented.

Themes and sub-themes that emerged. Individual interviews were conducted with ten secondary school principals (see Table 1). Two main themes subsequently emerged: (i) The knowledge, practices, and attitudes of high school principals in regard to HIV programmes for adolescent girls, and (ii) Proposed leadership and management strategies (see Table 2).

Table 1 Characteristics of interview participants.

Principals	Age	Experience as HIV intervention patron	Qualification	Years of experience as principal
1	58	4	STD, PGDE, BEd, MEd	18
2	50	2	Diploma, B.A	13
3	58	3	PGDE, B.A, B.Ed, M.Ed	14
4	50	1	STD, ACE	13
5	45	2	STD, ACE, B.Ed	5
6	49	4	STD, ACE, B.Ed	5
7	44	2	STD, ACE, B.Ed	4
8	49	3	STD, ACE, B.Ed	9
9	55	5	Dip, ACE, B.Ed Hons	16
10	50	2	Dip, B.Ed Hons	13

Table 2 In-depth interview themes.

	THEMES	SUB-CATEGORIES
1	The knowledge, practices, and attitudes of high school principals	<ul style="list-style-type: none"> • Inadequate professional development of school leadership. • HIV interventions disrupt learning and teaching.
2	Proposed leadership and management strategies	<ul style="list-style-type: none"> • Problems related to the management of health issues. • Effective partnership. • Enabled transformational leadership. • Developing a functional HIV policy. • Strengthening monitoring and evaluation.

Data presentation

Theme 1: Knowledge, practices and attitudes of high school principals

Inadequate professional development. All of the participants emphasised that one of the biggest obstacles to the effective delivery of HIV/AIDS interventions for adolescent girls is a lack of knowledge. The participants highlighted that principals, in their duty as custodians of the implementation of HIV/AIDS interventions, are side-lined regarding information dissemination. Moreover, they are not trained; and the Department of Basic Education (DBE) treats them as if they were public health specialists, which they are not. Hence, principals need to be trained on these new responsibilities, particularly in regard to adolescent girls’ HIV/AIDS intervention programmes. Knowledge of the subject would enable them to implement such programmes more effectively. Principal 4 confirmed that all stakeholders are interested in the successful launch of HIV/AIDS intervention programmes. However, they expect principals to miraculously manage and implement these programmes without training. Principal 4 had the following to say in this regard:

The last time I saw the programme stakeholders was at the launch; since then I have never received training on the management and implementation of the girls’ intervention program, let alone monitoring and evaluation.

Principal 7 constantly expressed his dismay at the lack of support from the stakeholders, particularly the DBE, saying:

My colleagues frowned at me earlier when I indicated that I had nothing to do with adolescent girls’ HIV/AIDS intervention at my school. This is because, since its inception, none of the stakeholders has rendered any support in terms of training. Then how am I expected to implement a health-related issue; it’s obvious that my knowledge and expertise are very limited.

The participants’ frustrations are justified as they had been assigned a daunting task with no support in terms of training. During the interviews, it was revealed that none of the participants had been trained in managing and implementing HIV/AIDS interventions for adolescent girls. On a positive note, Principal 3 proactively suggested that the participants should set up their own workshops to exchange best practices, and invite professionals to provide them with training on how to manage and implement these new intervention programmes. He had the following to say in this regard:

It is better late than never, it will be great if a workshop is organised. In that platform we will share our experiences, challenges and even good practices. Note that I have been involved with the programme since its inception, but I cannot confidently assist you. I have asked for assistance several times but to no avail; what I know is self-taught. I suggest that we take ownership and convene a monthly support meeting.

The resulting data make it abundantly clear that the participants’ knowledge of policy, the administration, and the implementation of HIV/AIDS intervention programmes for adolescent girls is lacking. Stakeholders must assume responsibility for the participants’ training if they are to achieve their objective of lowering the rate of new HIV infections among adolescent girls.

HIV interventions disrupt learning and teaching. All of the participants indicated that the curriculum was prioritised in terms of school leadership challenges, and that adolescent girls’ HIV/AIDS intervention programmes interfered with the school curriculum. Principal 1 pointed out the inconvenience that is brought about by poor planning on the part of the programme stakeholders. It is surprising to hear such sentiments from a principal, who is generally considered to be the custodian of schools’ HIV/AIDS policy. This showed how disconnected this principal was from the implementation of the HIV/AIDS programme for adolescent girls at his school. His sentiments in this regard were as follows:

These health intervention programmes, as much as they are an effort to combat HIV/AIDS, disrupt the day-to-day running of the school. Some of the activities are not planned timely as they are just sprung on us. As principals, we are left with all the mess of fixing the school timetables.

Principal 2 shared similar sentiments:

What irritates me most is when the stakeholders, mainly DBE, pitch up early in the morning and ask to be slotted into the timetable.

The participants’ frustrations were as a result of poor implementation of the programme, and are an example of how secondary schools lack the necessary infrastructure to implement HIV/AIDS policies.

All of the participants were frustrated by these untimely spontaneous activities, finding them to derail the set programme for the school. This was emphasised as the participants pointed out that time was one of their main challenges. Moreover, the participants indicated that learners did not appreciate attending these HIV/AIDS interventions after hours, in which case there was poor attendance by the girls. Principal 3 revealed that these programmes were poorly attended, insinuating that these interventions may not be reaching the intended population, and thus the rate of new HIV infections may increase.

It is a struggle to keep learners in class after school. This directly affects the scheduled activities for the adolescent HIV/AIDS intervention programme. The monitoring and evaluation processes are non-existent, rendering this intervention programme useless.

The principals from the sampled schools claimed that HIV/AIDS interventions affect the time allocated for regular planning and instruction. All of the principals noted that, on occasion, they

had been forced to modify their planning to allow time for the HIV/AIDS intervention programme. The fact that the HIV/AIDS programme may not be reaching its target audience is another significant finding of this study. This may significantly affect efforts to lower the number of new infections among adolescent girls.

Problems related to the management of health issues

HIV/AIDS is a sensitive issue. All of the participants indicated that the HIV/AIDS intervention programme for adolescent girls was delicate by its very nature as this topic always has emotional issues attached to it. It is widely known that HIV/AIDS-related issues are a very sensitive topic; hence, they presented a challenge for these principals. Principal 5 was one of the more experienced in leading this programme. He pointed out that as a veteran of the programme implementation, he had taken on the responsibility of doing research himself to keep in touch with new developments in the HIV/AIDS arena. The participant also explained that HIV/AIDS is governed by law, and requires expertise. He pointed out that the stakeholders should provide the basic training needed to implement HIV/AIDS interventions effectively. Accordingly, Principal 5 had the following to say:

The sensitive nature of HIV/AIDS-related issues needs you to do research and keep up to date with new developments because they are governed by laws. The most frustrating part is that we are not trained on how to handle these issues. I think it's high time the stakeholders come on board and work with us for us to effectively implement the HIV/AIDS intervention programmes.

The data showed that the participants' inexperience in dealing with the delicate aspects of HIV/AIDS hindered the effective implementation of the programme for adolescent girls. This necessitates fundamental, as well as further training in counselling. This programme is in dire need of training implementation since it deals with sensitive and confidential issues. Therefore, principals should devise strategies that will enable them to implement the programme successfully.

Theme 2: Proposed leadership and management strategies

Effective partnerships. The participants indicated that they had to assert their leadership position as role players in implementing HIV/AIDS intervention programmes for adolescent girls. Principal 4 stated that principals are typically left out of training on the implementation and management of these programmes. He further explained that the lack of involvement of principals by relevant stakeholders makes it hard for principals to provide leadership, and manage and implement these intervention programmes successfully. He had this to say:

Though a collaboration approach is encouraged, principals are often left out of the stakeholder equations... the only time we hear from the stakeholders is during the launch of the intervention programmes.

The results of this study suggest the use of strategies and interventions that encourage cooperation with other interested parties. This could result in a favourable contribution to the rollout of the HIV/AIDS intervention programme in schools.

Transformational leadership to enable effective leadership. All of the participants agreed that transformational leadership is required, which would encourage them to create or find innovative approaches to health-related problems. Principal 3 asserted that transformational leadership would propel the participants to be proactive. This would further allow principals to make an

intellectual effort, and would enable them to come up with innovative ways of looking at problems:

I think it's high time we take up the transformational type of thinking that will stimulate our way of thinking and improve our ways of thinking.

The findings of this study suggest that transformational leadership will positively influence school leadership to facilitate change in school by restructuring initiatives, and is best suited for coping with the demands of schools in the 21st century.

Strengthening monitoring and evaluation. All of the participants agreed that monitoring and evaluation of the HIV/AIDS programme was non-existent in their schools, which impeded programme implementation. Principal 6 was convinced that the monitoring and evaluation of HIV/AIDS programmes for adolescent girls did not exist, or had not been fully implemented in schools. He pointed out that if they were, the challenges faced by principals could have been identified:

If monitoring and evaluation were done diligently, the stakeholders will be aware that the principals are lacking in knowledge and expertise of managing this [sic] HIV/AIDS intervention programmes... The monitors will have picked up our shortfalls and addressed the issues at hand.

Principal 1 explained that he could not confidently tell the researcher how the adolescent girls from his school benefited from the programme. This was rightfully so because the evidence of the project's impact was weak owing to the absence of effective monitoring and evaluation. When asked how the adolescent girls' programme had impacted the girls' lives, he mumbled:

The evidence of the project is weak or non-existent. This is due to the lack of monitoring and evaluation procedures within the programme design.

Evidently, there were no monitoring systems in place. It is suggested that all principals should be trained in monitoring and evaluation to generate information regarding programme development. School principals could then share their experiences and best practices systematically.

Findings

Based on the data gathered, the majority of the participating principals concurred that the implementation of a school-based HIV/AIDS intervention had a significant impact on the management of their schools. This implies that their roles had to be modified to incorporate this intervention. According to Moyo (2016), school principals' traditional organisation, planning, leading, and controlling responsibilities have given way to a more supportive role. Both Bialobrazska et al. (2010) and Mfusi (2011) contend that the complexity of leadership in South African secondary schools has increased due to the HIV/AIDS epidemic. In concurrence with this, it was clear in this study that the nature of HIV/AIDS has influenced school leadership. Currently, principals must implement a number of complicated HIV/AIDS policies that lead to extra responsibilities, which prevent them from concentrating on their main duties, including carrying out the school's vision and mission.

As shown in this article, and according to Sonnenfeld (1995), leaders such as principals can develop creative solutions to issues through the use of intellectual stimulation. According to the participants of this study, owing to the increased management responsibilities brought on by HIV/AIDS, secondary school principals face enormous challenges that make it hard for them to handle the situation appropriately.

This study found a lack of support for principals. This finding corroborates that of Aggleton et al. (2011), which emphasises a lack of support for principals. Also established by this study is the assertion that clear policy frameworks and guidelines are either absent or distributed unevenly, a similar view to that expressed by Mfusi (2011). The participants asserted that the absence of clear policy frameworks and guidelines on the management and implementation of HIV programmes in schools was one of the reasons why they were not doing well in their roles. According to Mokwatlo (2006), where HIV/AIDS policies do exist, they address disclosure, absenteeism, and safety issues, but do not outline the implementation procedures for HIV/AIDS intervention programmes. The participants all stated that when there was no support for the implementation of policies, they frequently faced difficulties. In their conversations, the participants indicated some of the leadership traits or attributes that could help principals and other school leaders to manage the implementation of HIV programmes in schools effectively. These attributes resonate well with transformational leadership, the underpinning theoretical framework for this study. Bush (2008) describes transformational leadership as an ideal – a powerful type of leadership capable of supporting a rapidly changing and challenging environment. In this regard, Bush (2008) argues that the transformational leadership model is a growth model. It is thus clear that leadership and management in schools are largely affected by a lack of knowledge and support, which was echoed by the participants in this study.

According to Bass (1991), transformational leadership can be learnt, but creativity and innovation must be nurtured and can only be achieved through ongoing training. Unfortunately, the participating principals revealed that they did not get an opportunity to undergo continuous training. This concurs with Aggleton et al.'s. (2011) argument that principals do not get adequate support or training to deal with the problems they face. Dealing with the HIV/AIDS pandemic in schools is a complex job for which school principals are never trained, and they thus lack qualifications and preparation (Mahabeer, 2008). Mpangana (2012:35) reports that “65% of school principals in the Manyaledi circuit lacked HIV/AIDS leadership training”.

It is clear that principals lack the resources necessary to address the problems associated with HIV/AIDS among adolescent girls, especially given how delicate these matters are. In this regard, Mahabeer (2008) suggests that understanding psychological issues is necessary to develop strategies that make it easier to handle HIV/AIDS-related issues. The reviewed literature demonstrates that school administrators do not get enough help or training to deal with the challenges they face as leaders (Hewu-Banjwa, 2012).

According to popular belief, transformational leaders are charismatic visionaries who can persuade subordinates to look beyond self-interest in the exchange of goods and services (Nwagbara, 2011). According to the literature, HIV/AIDS-related issues are extremely delicate, so principals should use influence rather than enforcement. Moyo and Smit (2017) agree that the sensitive nature of HIV/AIDS-related issues requires the use of holistic approaches by principals.

The findings also indicate that many sampled secondary schools lacked monitoring and evaluation systems – an important aspect of intervention programmes, as shown in the theoretical framework presented in this article. Principals should therefore be expected to improve their monitoring and evaluation processes as this is crucial for producing the data required for programme development. In the presence of the HIV/AIDS intervention programmes for adolescent girls, there is an increased need for knowledge on how to gather, analyse and disseminate information, but this is a skill that principals lack. False narratives about

the effectiveness of HIV/AIDS intervention programmes for adolescent girls are created by a lack of monitoring and evaluation.

This study found that the participating principals needed to expand their collaborative partnerships with NGOs to forge new relationships, which may be crucial for capacity building. In addition, information from the interview conversations with the participants underlines key issues such as the promotion of adaptability; changes to, and the revision of outdated HIV/AIDS school policies and liability regulations; and improved and consistent leadership engagement. The researchers consider this worthy of note in unpacking the proposal and discussion of strategies for managing HIV interventions programmes, which was the aim of this study.

Management strategies that improve the implementation of adolescent girls' HIV interventions (based on the interview conversations with the participants). The preceding section discussed the findings regarding the conversations with the participants. This section discusses the findings pertaining to strategies for the effective management and implementation of HIV intervention programmes for adolescent girls in secondary schools based on the conversations with the participating school principals.

Strategy 1: Promote adaptability. Adaptability is the ability to adjust to fit the local context (Waltz et al. 2019). These principals did not have sufficient expertise to adapt, tailor, or reinvent the HIV programme to meet the local needs or context. COVID-19 presents a vivid example of a lack of adaptability as COVID-19 restrictions had a significant effect on the implementation of the HIV programme for adolescent girls as there were substantial restrictions on movement. The participants also further questioned the effectiveness of this HIV programme. In addition, they were challenged owing to their lack of expertise in offering support for the HIV intervention programmes during the COVID-19 hard lockdown.

In view of the above, the DBE should determine how to adapt the intervention programme for adolescent girls to the needs of the local community and make it clear to principals which components of the intervention should be retained to preserve fidelity. With adaptability, principals can deal with unforeseen issues and events that interfere with their work, hinder productivity, and result in changing plans.

Strategy 2: Change or revision of outdated HIV/AIDS school policies and liability regulations. Sampa et al. (2021) state that the absence or inadequacy of legislation and policy liability concerns may hinder the implementation of intervention programmes for adolescent girls in schools. Therefore, there is a need for revised or standardised procedures to reduce principals' concerns over confidentiality issues, and facilitate the execution of the programme activities while maintaining data integrity. Principals should participate in liability reform efforts that will allow them to deliver HIV interventions for adolescent girls effectively.

It became evident in this study that there were no clear structures at most of the secondary schools sampled, leading to a failure to effectively implement HIV intervention programmes, particularly those for adolescent girls. Principals should adopt a transformational leadership approach because a transformational leader is defined as a leader who collaborates with subordinates to identify the needed change, and create a vision to guide change. Principals should be trained in the development of HIV school policies and guidelines in order to create clear, proper guidelines. Following that, structures in schools should be set up in

accordance with the policy and strategic framework for combatting new HIV infections among adolescent girls.

Strategy 3: Improved and consistent leadership engagement. Leadership engagement at all stages of the implementation process can help to improve the effectiveness of HIV intervention programmes, while a lack of involvement can hinder implementation (Sampa et al. 2021). It is clear from this study that some of the principals lacked commitment and were not involved in, or held responsible for implementing the HIV intervention programmes for adolescent girls. Leadership is a process of social influence where the leader intentionally shapes the beliefs and actions of others, typically referred to as subordinates or followers, to organise the interactions and relationships within a group or organisation.

Making sure that subordinates are aware of the tasks they have to complete, and the expected outcomes of their work is a crucial leadership responsibility. A principal should be able to foresee the future and know how to plan for it. In addition, conceptual skills are required to create a strategic vision in order to direct significant changes in the organisation in response to changes in the external environment. The importance and difficulty of leadership have increased in the 21st century owing to unprecedented changes affecting organisations. Principals might need to develop new skills in addition to more of the traditional ones to deal with these changes (Daniëls et al. 2019). Given the participants' conversations, this can be achieved through ongoing training for principals in the necessary and relevant skills required to excel in their roles.

In addition, it is crucial to involve stakeholders in the implementation of the HIV intervention for adolescent girls because this fosters a sense of pride in, and ownership of the intervention programme. Principals should work to improve and foster stakeholder relationships through the following:

- (i) Promoting networking: Finding and enhancing high-calibre networks, and fostering working relationships both inside and outside the school, including the DBE and the Department of Social Development. This could encourage information sharing, cooperative problem solving, and a common vision and objective (Leithwood, 2012).
- (ii) Building a coalition: Seeking out and maintaining connections with collaborators on the implementation of HIV intervention strategies (Leithwood, 2012).

Strategy 4: Systematic monitoring and evaluation improvements. The DBE should establish and coordinate systems and practices for quality monitoring that keep an eye on the following aspects of the HIV intervention programmes for adolescent girls:

Developing a formal implementation blueprint: The DBE should create a formal plan that outlines all objectives and tactics. The following should be included in the blueprint: (i) The goal or objective of the implementation, (ii) The extent of the change, (iii) A timeline and completion dates, as well as (iv) Suitable performance progress benchmarks. This plan should be utilised and revised to direct HIV/AIDS programme intervention implementation over time.

Strategy 5: Create and implement quality control tools. The DBE should incorporate appropriate input – language, protocols, standards, and measures (of processes, outcomes and implementation outcomes). This must be specific to HIV intervention processes and outcomes for adolescent girls. This input should lead to an output of quality monitoring systems for quality assurance and improvement.

Strategy 6: Provide regulated audits and feedback. Over a pre-determined period, the DBE should gather and summarise performance data related to the HIV intervention programme for adolescent girls. The information should be used to track, assess, and alter the behaviour of the principals.

Limitations. The limitations of this study include the small sample of school principals interviewed. The small sample size makes it impossible to extrapolate the findings on how principals are managing and implementing programmes for adolescent girls with HIV to other principals and locations. Nonetheless, the findings are useful for both theory and practice purposes, and would be useful in contexts that are similar to the research sites where this study was conducted. This is because of the methodological rigour, as well as the rich, in-depth, well-analysed data obtained from the interview conversations.

Conclusion

HIV intervention programmes for adolescent girls must be implemented effectively if the scourge of HIV is to be combatted successfully. It has been determined that strong transformational leadership is essential for mounting a successful defence at the school level. Although strong leadership may not always ensure success for a particular HIV/AIDS prevention programme, it is now obvious that without strong transformational leadership, success and progress are all but impossible. HIV/AIDS interventions for adolescent girls must be more effective, which calls for programme management strategies. This study has demonstrated that principals may gain from instruction and development in transformational leadership philosophies that have been shown to boost productivity in corporate settings and academic institutions.

The findings show that training courses and competencies should be strengthened and linked to management, leadership, and the implementation of adolescent girls' HIV intervention programmes. This would address the lack of skills necessary to successfully implement these programmes.

This research further provides evidence that adolescent programmes must have a community-based component for continuity. With such interventions at the community level, adolescents may continue benefitting from the programme even when schools are closed, as happened during the COVID-19 pandemic. The school should be capacitated with outreach programmes for implementation amidst and beyond pandemics.

One of the key reasons for principals to adopt or embrace a transformational leadership approach is because it fits or aligns with a normative style. This is perfectly suited to the new paradigm in which principals not only fulfil their traditional roles, but also become deeply involved in delicate matters, such as those related to HIV/AIDS.

Relationships between stakeholders should be strengthened because they will aid in the effective leadership, management, and implementation of HIV intervention programmes for adolescent girls. Stakeholder relationships should be improved because doing so will further facilitate the execution of these programmes. Such programmes should be incorporated into the school curriculum to properly plan timetables and schedules to avoid inconvenience and burnout.

The findings of this study indicate that a challenge exists in the implementation of HIV/AIDS intervention programmes for adolescent girls at schools. Accordingly, this study suggests strategies that principals and school leaders could use to effectively manage and implement these programmes. The strategies presented in this article do not necessarily have to be implemented in the order in which they are presented. Nonetheless, these strategies address the

need to strengthen the delivery system of HIV/AIDS intervention programmes for adolescent girls because such programmes are key to fighting off new HIV/AIDS infections.

Data availability

The data supporting the study's findings are available upon request from the corresponding author.

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Author contributions

The article is drawn from PN's dissertation which was supervised by OCP. OCP – partly with PN wrote the sections of the article, validated the interview schedule, and edited the article.

Competing interests

The authors declare no competing interests.

Ethical approval

The research this article is drawn from obtained ethical clearance approval. Ethical approval was obtained from the Department of Education, South Africa (No. 202/2944), as well as the University of Johannesburg, South Africa Ethics Committee (No. Sem 2-2021-035).

Informed consent

The participants received letters that solicited their participation in the study. They also received consent forms. All participants signed the forms to indicate their voluntary participation in the study.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-023-02188-7>.

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