

## Research Article

### Lay Perspectives How HIV/AIDS Prevention Programmes Influenced Selected Urban and Rural South Africans

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## Abstract

### Background

South Africa faces a critical public health problem with 6.3 million people living with HIV/AIDS, notwithstanding implementation of the latest biomedical technologies. Worldwide, prevention programmes contributed to reduce HIV incidence. The UNAIDS urged countries to scale-up these programmes. However, South Africa has not experienced predicted reduced HIV incidence.

### Aim

To explore lay perspectives on HIV/AIDS awareness of urban and rural South African adults, in order to make recommendations for improved HIV/AIDS prevention programmes.

### Methods

As realities are socially constructed, a qualitative study explored lay perspectives of participants. Purposive sampling assisted in recruitment of 12 rural and 19 urban participants between 20-50 years old from two South African provinces for focus group discussions and individual interviews, representing Black, Coloured and White ethnic groups. Data was analysed using Thematic Content Analysis.

### Results

The Integrative Health Belief Model formed the framework to interpret the four emerging themes. Integrating HIV/AIDS education in school curriculum produced high levels of HIV/AIDS knowledge but presented within the biomedical model created a barrier that prevented younger participants from internalising HIV/AIDS knowledge into social realities. This led to misinterpretations and boredom. Middle-aged participants' exposure to HIV/AIDS prevention programmes showed how the focus on Blacks, distanced Coloured and White ethnic groups. Although some benefited from prevention programmes, this led to a false sense of safety and barrier to perceived severity of HIV-risk. An unexpected finding was younger women attributing cross-generational relationships as filling the gap of an absent father. Internalised knowledge led many participants to express concern of deteriorating moral values, negatively affecting community discourses and undergoing voluntary counselling and testing.

## Conclusions

Recommendations focus on practice, policy and research. The Integrative Health Belief Model holds potential for an upstream reorienting of HIV/AIDS prevention programmes, integrated into the sociocultural life-worlds of all South Africans to reduce HIV incidence.

**Keywords:** HIV/AIDS; Qualitative Research; Lay Perspectives; Prevention Programmes; Integrative Health Belief Model

## Introduction

After more than two decades, sub-Saharan Africa still carries the greater burden of the HIV/AIDS epidemic with 24.7 million of the global 35 million people living with HIV. In South Africa (SA) 6.3 million people, an estimated 12.2% of the population are living with HIV, resulting in the country with the highest HIV prevalence in sub-Saharan Africa [1].

SA responded with HIV prevention efforts, including fixed-dose combination antiretrovirals, integrated HIV/TB treatment, 95% coverage of prevention of mother-to-child HIV transmission and a national drive for voluntary counseling and testing (VCT). This SA approach resulted in the largest antiretroviral treatment programme worldwide [1,2]. To aid comprehensive prevention; efforts include HIV/AIDS education integrated into the school curriculum, and implementation of national HIV/AIDS prevention campaigns.

Notwithstanding SA's apparent mix of interventions, of the 6.3 million HIV-infected people, 5.9 million are estimated to be 15 years and older. Among the 15-49 year olds, the prevalence rate is 19%. The gendered face of SA's epidemic is apparent with 3.5 million women aged 15 and older, living with HIV [1].

Globally, recognition exists that creating awareness and disease prevention among communities, require the integration of local knowledge and culture rather than a generic approach [3-5]. According to the UNAIDS [1], elementary education and awareness building of HIV/AIDS should form the foundation of prevention programmes. Consequently, effective HIV/AIDS prevention approaches should include a mix of behavioural, biomedical and structural strategies that are based on human rights, community needs that could lead to acceptability by all [5,6].

## HIV/AIDS prevention programmes

SA supplements biomedical interventions by a plethora of national campaigns, community- and school-based HIV/AIDS prevention programmes. Table 1 highlights some of the programmes that target specific groups as well as where gaps exist.

*Gender:* Various HIV/AIDS prevention programmes specifically target men to improve gendered perspectives and curb violence against women [7]. Examples are the "One man Can" and "Men as Partners" programmes.

*Women and pregnant females:* Considering the high prevalence of HIV among women prevention programmes target women and pregnant females. The Mamekhanya programme mobilise 'mentor' mothers to provide psychosocial support and HIV education to infected pregnant women at antenatal clinics in SA [8]. The versatile "Women's CoOp" HIV/AIDS initiative explicitly empowers women with negotiating skills to prevent sexual and substance abuse.

*Youth and Men who have sex with Men (MSM):* Without disputing the value of national campaigns *Khomanani* and *loveLife*, these were sharply criticised for victim-blaming approaches as their branding projected public faces free from HIV/AIDS, lacking discussions on treatment or stigma, omitting to feature MSM and leaving their stories untold [9]. Therefore, Selikow et al. [10] emphasized the importance to address the needs of specific at-risk groups.

*White South Africans:* HIV/AIDS programmes that address the needs of the White ethnic group are rare. Nduna and Mendes [11], exploring attitudes of Whites, revealed low HIV-risk perspectives, which Maharaj and Cleland [12] based on their under-representation in prevention programmes.

*Adults over the age of 40 years:* Insufficient programmes address this group's needs. Therefore, Boon et al. [13] emphasized targeting negative HIV/AIDS perspectives in this group to ensure sympathetic attitudes as caring for AIDS orphans often became their responsibility.

What is not clear is how HIV/AIDS prevention programmes have influenced lay perspectives of South Africans. Psychological interaction between the social lives of people, their risk perceptions, and understanding of HIV/AIDS prevention programmes need exploration.

## Theoretical framework

The theoretical constructs of the Health Belief Model (HBM), predicts that HIV/AIDS prevention programmes should improve people's perceptions of susceptibility and severity of health threats in order for them to weigh up these perceived risks against the benefits of change [15]. In the example of condom-use, the HBM postulates that prevention programmes should take culture and socio-economic status in consideration to improve people's understanding of HIV-risk when engaging in unprotected sex. This could enable them to compare the risk of HIV-infection to the benefits of using condoms.

<b>Table 1: Examples of SA HIV/AIDS prevention programmes and existing gaps</b>				
<b>HIV/AIDS programme</b>	<b>prevention</b>	<b>Target</b>	<b>Method</b>	<b>Approach</b>
‘One Man Can’ Programme and ‘Men as Partners’		Aimed at all men and boys	These programmes use a rights-based approach to address HIV/AIDS risks and decrease violence by focusing on gender equality, HIV/AIDS and violence.	Workshop approach and peer education
Mamekhaya based on Mothers2Mothers		Aimed at pregnant mothers	HIV-infected mothers act as mentors for newly diagnosed pregnant women. They provide education and psychosocial support.	Small groups with 8 sessions
Women’s CoOp		Woman-focused HIV prevention	Empower women to prevent HIV through negotiating skills to protect against substance abuse and sexual violence	Community-based approach, supplemented with adaptable training manuals
loveLife, Soul City and Khomanani –national HIV/AIDS prevention campaigns		All SA youth – mostly customised for young Black South Africans	Campaigns use media messaging: TV, radio, billboards, print for social marketing and branding aimed at the youth, thus focusing on consumerism and edutainment. The positive approach often omits homosexuals. [9,10].	loveLife: 1999 Khomanani: 2004-7 Soul City: since 1992
A <b>gap exists</b> on HIV/AIDS prevention and awareness programmes for Whites		White South Africans	Under-representation of HIV/AIDS prevention programmes for Whites.	No specific programmes
A <b>gap exists</b> on HIV/AIDS prevention and awareness programmes for adults aged over 40 years		Middle-aged adults (40-60 years old)	HIV/AIDS prevention programmes seldom reaches adults aged over 40 years [14]. Boon et al. [13] highlighted challenges of this group when caring for HIV-positive children and AIDS orphans.	No specific programmes

However, structural barriers such as not having condoms may affect the health-benefit analysis. Widespread health promoting messages that free condoms are available at clinics can act as action cues for condom-use. Having intentions to change behaviour does not imply action; therefore, Fishbein and Yzer [16,17] expanded on the HBM with the Theory of Reasoned Action to form the Integrative HBM (IHBM).

The IHBM (Figure 1) predicts that people act on their intentions when environmental factors encourage behaviour, and the necessary skills exist. This refers to attitudes on condom acceptability, perceived norms to strengthen behaviour change intentions and self-efficacy to act. Once intention exists for consistent condom-use, not more motivation is required for action, rather competence and skills to understand how to use condoms.

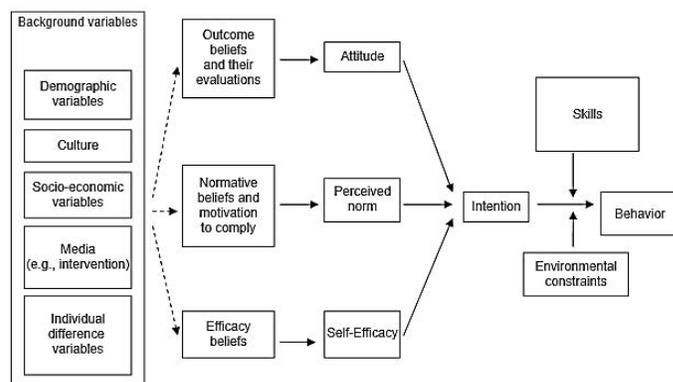


Figure 1. Integrative Health Belief Model [17].

This accompanied with environmental factors such as the social context where a man would agree to use a condom and self-efficacy to take action, could progress from intentions to behaviour change action.

The research question this paper sets out to answer is how SA HIV/AIDS prevention programmes have influenced lay perspectives of urban and rural SA adults. Results interpreted through the IHBM, intend to contribute knowledge for improved policy, practice and research, making health-promoting programmes on HIV/AIDS prevention in SA more effective and fit for purpose [18].

## Materials and Methods

### Approach, settings and sampling

The research took a social constructivist approach, which is the theoretical belief that social interaction shapes reality. This perspective implies that what we know is negotiated within cultures, social settings, and relationships with other people. This approach enabled understanding and interpreting how HIV/AIDS viewpoints developed among rural and urban South African communities and how participants attached meaning to exposure to HIV/AIDS prevention programmes [19]. The qualitative research design with four focus group discussions (FGDs) and eight individual interviews, facilitated examination of participants lay perspectives.

Selected settings were the Western and Eastern Cape provinces of SA. In the rural Winelands of Worcester, Western Cape, prediction of HIV prevalence by 2014 was 17% among Coloured (mixed ethnicity) farmworkers [20]. HIV/AIDS is also the number-one cause of premature death in this area, especially among females [21]. The township of New Brighton in Port Elizabeth, Eastern Cape, provided the urban setting where prediction of HIV prevalence by 2014 was 31% [20].

A purposive sampling approach, as advised by Marshall [22], enabled a maximum variation framework that included geographic areas, gender, ethnic and age groups in order to capture wide-reaching perspectives, including disagreements. Sampling criteria targeted SA's worst-hit HIV/AIDS population groups: young adults, women, and adults aged 15-49 years [1], excluding health workers due to their professional knowledge that might influence their lay perspectives.

### Recruitment and data collection

A community leader assisted the researcher with recruitment of rural participants through word-of-mouth invitations, after which the research was explained. A local nurse received ethics training to act as gatekeeper for recruitment of urban participants and explanation of ethics and the research. All the volunteers had two weeks to consider participation. The rural FGDs took place in a barn on one of the farms and the urban

FGDs took place in a township church.

Generally, there are low participation rates of Whites in SA research due to perceived high opportunity costs of time spent on research participation without tangible benefits [23,24]. This further led to participants' unavailability for FGDs. The researchers recruited White South Africans from different socioeconomic backgrounds through word-of-mouth invitations for semi-structured interviews until reaching saturation. Participant demographics in Table 2 reflected the desired maximum variation framework.

**Table 2:** Participant demographics

Gender	Geographics	Age groups	Ethnicity	Home language
18 females	12 rural	10 (aged 20-30)	10 Black South Africans	19 Afrikaans
13 males	19 urban	10 (aged 31-40)	13 Coloured South Africans	9 Xhosa
		11 (aged 41-50)	8 White South Africans	3 English

Separate male and female FGDs prevented potential discomfort and possible male dominance. The two rural FGDs were conducted in Afrikaans and the urban FGD and individual interviews in English. Thirty-one people participated in four FGDs and eight individual interviews.

The semi-structured interview guide was pretested with a 3-person FGD, representing each ethnic group and with one individual interview. Participants easily understood all the questions without literacy problems. Since piloting the interview guide yielded rich data, no changes were necessary, adding validity to the tool and enabled follow-up with supplementary questions. Four major sections covered HIV/AIDS knowledge, sources that influenced HIV/AIDS awareness, perspectives of received information, and examination how participants internalised HIV/AIDS knowledge.

### Ethics and data analysis

The SA Medical Research Council and the University of Liverpool Ethics Committees, respectively, provided ethics approval and participants gave written consent. Both institutions scientifically reviewed and approved the research proposal.

Thematic Content Analysis (TCA) formed the analytical framework, which added validity to the examination process [25]. Data analysis took place by transcribing all the audio-recorded interviews in MSWord documents and translating Afrikaans interviews in English. Initially, a systematic review of data took place without attempts to interpret data, but rather to identify

fy key phrases, which became numbered codes of transcribed data [25]. These codes were categorised under each question that initially formed the main themes. Each transcription underwent this process followed by extensive comparisons and contrasting of interview data under each theme to identify sub-themes. Next, comparing and contrasting of individual interviews to FGD data, enabled the verification of main, and sub-themes [26]. One researcher analysed the data while investigator triangulation by another researcher enabled checking of codes and themes.

## Results and Discussion

Patterns and relationships between data sets emerged, including new themes to create a final coding scheme. The primary sections formed four main themes with two sub-themes emerging under each.

- 1) Knowledge on HIV/AIDS: a) Understanding HIV/AIDS, and b) Reactions to understanding HIV/AIDS;
- 2) What influenced HIV/AIDS knowledge: a) Sources influencing HIV/AIDS knowledge, and b) Responses to HIV/AIDS prevention programmes;
- 3) Perspectives of received information: a) Making sense of HIV/AIDS information, and b) Community discourses on HIV/AIDS;
- 4) Internalising HIV/AIDS knowledge: a) HIV/AIDS prevention programmes and decision-making, and b) Applying HIV/AIDS prevention methods.

Participant identification: "Township" refers to Black South African participants; "Farmworker" to Coloured South African participants; and "Middle-class" to White South African participants, mainly of middle and upper socioeconomic status.

### Theme 1: HIV/AIDS knowledge

In an icebreaker, participants shared what came to mind every time they hear the words "HIV/AIDS". This brought forward perspectives of fear and dread of the disease with references to stigma. "Oh, HIV kills the immune system; eventually leading to death" (Farmworker Male-1), responded upon: "So, I rather avoid someone with AIDS" (Farmworker Male-2). "HIV is killing our people; we are scared of AIDS" (Township Female-1). In a comparison of responses, overall participants possessed knowledge on HIV/AIDS as many could describe how the virus attacks the immune system, leaving the body vulnerable to other diseases, especially tuberculosis. "It is a terminal disease, but more recently with the availability of ARVs, a chronic illness that can be well managed" (Middle-class Male-1). One striking contrast, among Whites was strong feelings of not being at HIV-risk, which bordered on victim-blaming as they expressed intolerance of people's poor health choices. "People who get HIV are stupid! Everyone knows how to protect

himself!" (Middle-class Male-4) "I learned about HIV/AIDS at school for many years and feel jaded about the topic" (Middle-class Male-3).

According to the constructs of the IHBM, people might form intentions to change their behaviour after weighing-up perceived risks to the benefits of change. Knowledge of the health threat is a structural requirement for the health-benefit analysis to take place [27,28]. By examining the diverse participant perceptions, it confirmed widespread knowledge on HIV/AIDS in SA. For instance, on the one hand, Burgoyne and Drummond [29] found up to 90% of SA women and black youth in rural and urban areas knowledgeable on HIV/AIDS as confirmed by this study. On the other hand, insufficient knowledge became a barrier that prevented advancement of rural farmworkers along the continuum of the IHBM due to the misconception that TB automatically progresses to AIDS. This misunderstanding added to perceptions of stigma. Van Dyk [30] found a similar socially constructed perspective, which affirmed the need to integrate easily misunderstood concepts into prevention programmes to avoid fear and stigma. This underlined insufficient HIV prevention programmes among rural farmworkers.

Overall, participants singled out the youth as vulnerable to HIV-infection. Farmworker FGDs elaborated on the risky lifestyle led by rural youth and worsened by the lack of HIV/AIDS community discourses, which limited the influence of HIV knowledge on social realities. The township FGD hotly debated reasons for young females' preference of older men. Older women immediately attributed this to financial benefits and status but younger women strongly rejected this by blaming single-parent households, without a father's love. "Most kids in townships grow up without a father, girls long to fill that void, we want manly love! We are a fatherless nation!" (Township Female-1) In contrast, older men's preference of young women was attributed to the cultural practice of virgin-cleansing (having sex with a virgin to cure HIV). Their discussions revealed how they linked cultural influences to knowledge of transmission modes. They referred to traditional healers' use of unsterilized blades and the practice of virginity testing. "The Sangoma's blade can cause HIV-infection during ceremonies to drive away evil spirits" (Township Male-1). In contrast, a pattern emerging among White South Africans showed perspectives of poor and uneducated people as vulnerable to HIV/AIDS, especially Black South Africans. "My impression is that Blacks have the highest rates of HIV infections because all pictures in schoolbooks and clinic posters show Blacks" (Middle-class Female-6). "The poor in townships are bored, have no TV, so sex is their only means of entertainment" (Middle-class Male-3). It led to a deviant response, reflecting that vindictiveness drives poor people to infect others with the virus. "The poor purposefully infects others, not wanting to be alone with HIV" (Middle-class Male-5).

Participants' diverse reactions to HIV/AIDS knowledge proved how culture influenced perspectives. Yzer [17] explained that

culture critically influences behaviour because people belonging to a specific culture, tend to have similar beliefs, which affects their thinking and behaviour. The IHBM postulates that beliefs affect attitudes that influence behaviour change of a specific group, making it a suitable theory to influence all cultures. Therefore, SA's prevention programmes often lacking theory might be contributing to inadequate influence on HIV/AIDS perceptions of ethnic groups. Indeed, study participants' perspectives highlighted that SA's HIV/AIDS prevention programmes primarily focus on Black South Africans. Other ethnic groups were left with feelings of disconnect. This imbalance, particularly found perspectives among White South Africans as not being at HIV-risk. The IHBM predicts intentions for behaviour change, which relies on attitudes, norms and self-efficacy, are absent due to a lack of susceptibility or severity of the risk [31]. This study incongruously attributed the preference of young township females for older men to the absence of a father figure, reflecting higher rates of single-parent households in townships. The need to fill this gap, over-shadowed knowledge and encouraged risky sexual behaviour among young women, becoming a barrier in health-benefit analyses as predicted by the IHBM [32].

## Theme 2: What influenced knowledge

Comparisons further revealed that younger participants attributed their HIV/AIDS knowledge, mostly to school curricula where the biomedical approach led to varied perspectives. "Children are oversaturated and don't listen anymore when taught about HIV/AIDS because they don't see AIDS as a reality. It is not presented in a way to influence their lives" (Middle-class Female-6). "Children learn about HIV in school but don't take it in as they don't think it will happen to them. It is just a boring subject" (Farmworker Female-1).

Sources of HIV/AIDS information for adults over the age of 40, included radio, television, newspapers and HIV/AIDS prevention programmes. Among ethnic groups, different responses emerged. White South Africans felt 'switched off' as TV adverts were 'not aimed at them' and outside their culture. Black South Africans felt that TV programmes often-exaggerated scenes, which were not true to their culture while Coloured South Africans distanced themselves, claiming natural shyness that prevents discussing sensitive topics. Noteworthy responses included insistence by young Black women that HIV/AIDS discussions should move to social media. "Why don't they present HIV information in the social networks where it is in our faces every day?" Alternatively, White South Africans found VCT as a valued source of HIV/AIDS information. A Black South African linked the socioeconomic impact of unemployment in townships to alcohol abuse that led to irresponsibility in sexual behaviour. Fighting unemployment would not only make the township folks productive, but also expose them to HIV/AIDS programmes in the workplace. In contrast, the White South Africans saw little value in HIV/AIDS prevention pro-

grammes while the lack of this exposure sometimes led to violent outcomes. "I suspected that my partner was unfaithful and challenged him. He grabbed me by the neck and flung me against the door. I could not speak for a week; you end up avoiding AIDS discussions" (Middle-class Male-4). Strong feelings emerged overall that HIV/AIDS prevention programmes should portray realities of living with HIV/AIDS. "Government should rather show what AIDS really does to the body than show happy faces on posters" (Middle-class Female-6). Participants strongly criticised the method of distributing free condoms. "Free condoms should be available in bathrooms, not in clinic waiting rooms where everyone watches you" (Township Female-2).

Knowledge did not always lead to the progression through the stages of the IHBM. Van Dyk [30] and Tenkorang et al. [33] corroborated findings in this study that the over-emphasis of biomedical facts in school curriculum neglected to integrate social realities in life-worlds of the youth. Outcomes in this study saw younger participants to form misconceptions and express boredom with HIV/AIDS education. Gacoin [34] contributed Life Orientation curriculum in SA, based on the biomedical approach to sexuality that affirms male superiority and female submissiveness, thus inadvertently adding to structural barriers for women. Furthermore, a female participant who explained the conflict to overcome personal values and norms when aligning HIV/AIDS education to pupils' realities, demonstrated how perceived norms and environmental constraints disrupted intentions to take preventative action according to the IHBM. She strongly criticised the use of comics in HIV/AIDS education, which did not contribute to reality of the disease. Misunderstanding of posters or feelings of disconnect emerged in this study, which emphasised a lack of community involvement in HIV/AIDS programme design, similarly found by Bastien [35]. In contrast, mass media communication based on community involvement enabled tailoring of health messages as effective action cues in promoting belief changes and attitudes within SA townships [36].

In this study, White and rural Coloured South Africans mentioned a lack of support groups. Literature on support groups for White South Africans were absent, but Nachega et al. [37], demonstrated how support groups empowered urban Black and Coloured South Africans on HIV medication, facilitating progression from clinic to community support. Similarly, Sayles et al. [38] used supporting networks as strong contributors for people to understand HIV-risks.

## Theme 3: Perspectives on received information

Lived experiences and daily realities played an important role in making sense of HIV/AIDS information. Participants expressed perceptions of increased self-centredness in communities and a lack of moral values or concern for others. "Sunday mornings we stand in the sun and the men brag about Satur-

day night victories. It is a competition among friends to sleep with many girls as you show the weekend was not boring but it proves no respect for AIDS or who becomes infected" (Farmworker Male-5). "You see, if your husband or boyfriend cheats on you, you can get HIV and you would not even know; anyone can get HIV" (Township Female-8). Overall, HIV/AIDS did not feature in community discourses resulting in irresponsibility, stigma and passive disinterest. "People don't want to talk about AIDS, they will chase you away, and recklessness has become a habit in rural areas" (Farmworker Male-5). "We NEVER discuss AIDS or sex, it creates discomfort. We put an educational book on the coffee table for kids to read" (Middle-class Male-4). The generation gap saw emergence of different HIV/AIDS perspectives. "My daughter already knows everything but she won't listen to my warnings" (Township Female-7), and response: "You might know everything but only that moment of love counts, the regrets come afterwards" (Township Female-5).

HIV/AIDS prevention programmes influenced how communities made sense, internalised, and constructed HIV lay perspectives. For instance, participants referred to the deterioration of moral values. Psychosocial factors affecting the environmental context within the IHBM framework, led Schatz and Gilbert [39] to describe how adults aged over 40 years sought spiritual assistance to cope with changing cultural values and rising HIV prevalence in communities. Targeting this group with HIV/AIDS knowledge would create an opportunity to instil values and norms when raising AIDS orphans [40]. In this study, HIV media messages influenced attitudes and led to normative beliefs for behaviour change among adults who responded by reaching out to younger women. A mother collected condoms from the clinic for her daughter, and a teacher took extra time to teach safer sexual practices.

#### Theme 4: Internalising knowledge

Internalised HIV/AIDS knowledge proved critical for decision-making, especially for women. Comparisons among FGDs showed how values, norms and position of power influenced actions. "Well, if my husband insists on using a condom, I will become suspicious" (Farmworker Female-2). Powerlessness of women to negotiate condom-use emerged as Black South Africans referred to men who intentionally damage condoms. "Men often pretend to use a condom or prick the condom deliberately, called 'frauding'" (Township Female-1). Contrasting responses on trust in relationships, for some, led to the unacceptability of condom-use. "A man will come with many stories, but if you give in, he will never use a condom again" (Farmworker Female-4). Culture, awareness and responsibility influenced knowledge internalising. "Young people going to taverns and drinking too much are easy victims of HIV" (Township Female-3). White South Africans had positive learning experiences during VCT for health insurance applications. "Information provided by the nurse when I applied for my health

insurance, was extremely useful, and put many things on HIV/AIDS in perspective for me" (Middle-class Male-1). However, Coloured South Africans showed reluctance to undergo VCT based on fear of HIV diagnosis and associated stigma. "If your test is positive you wish to die. People are judgmental rather than supportive. You get stigmatised as one sleeping around, your bad lifestyle" (Farmworker Male-6).

Internalised HIV/AIDS knowledge emerged as participants acknowledged that risky sexual behaviour and sexual violence increase with alcohol and drug abuse [2,41]. These barriers reduce self-efficacy necessary for behaviour change, according to the IHBM, which surfaced in lay perspectives. In this study, a Black South African referred to the cultural practice of *labola* (bride payment) which he acknowledged reduces women to commodities. He illustrated internalised knowledge by associating economic improvement with empowerment of women. The IHBM clarified participants' decision-making and perspectives of HIV-risks. Where perceptions of low HIV-risk existed, participants sometimes considered condoms to prevent pregnancy while altogether forgetting HIV/AIDS prevention.

#### Conclusion

Without disputing the value of HIV/AIDS prevention programmes, this research emphasised how programmes outside participants social life-worlds, did not influence lay perspectives. Not all the participant perspectives emerging in this study are unfamiliar but as pointed out by Corless et al. [42], their combination intensifies the need for a holistic approach towards HIV/AIDS education.

This study highlighted the dichotomy of SA HIV/AIDS prevention programmes that mostly targets Black South Africans, leaving White and rural Coloured South Africans with perceptions of not being at HIV-risk. These findings were consistent with literature where Petros et al. [31] revealed Whites had a false sense of safety from HIV/AIDS, while Anderson et al. [23] found insufficient attention for the role of ethnicity on HIV-risk perceptions in SA. Perspectives of not being at HIV-risk could become barriers to influence behaviours as viewed through the IHBM. It implies that White and rural Coloured South Africans, not considered key risk populations, could inadvertently contribute to increased HIV incidence due to cultural exclusion from HIV/AIDS prevention programmes. Consequently, strategies as suggested by participants could target White South Africans through knowledge exchange during VCT sessions or in small-group interactions. Lay perspectives of rural Coloured South Africans could benefit HIV discussions in community support groups. Cain et al. [43] emphasized that programmes aimed at strengthening beliefs towards taking risk-reduction action, should customise prevention and risk behaviour for a targeted community. In SA, women bear the greater burden of HIV-infection and in this study, lay perspectives of women attributed "innocently" becoming HIV-infected to a paternalistic

culture that subjects them to submissive roles in relationships. In particular, are Black SA women exposed to cultural rituals, which add to their inability to protect themselves from HIV.

Since HIV at-risk groups in SA include men aged 15-49 years [1], a limitation was under-representation of Black males (n=2) compared to Black females (n=8). For example, young women in this study attributed cross-generational relationships as filling the gap of an absent father, in contrast to literature widely linking it to economic benefits and status for young women [44,45]. Perspectives of more Black males could have provided greater insights on this controversial issue. However, these findings are context-bound but by providing thick descriptions of the settings, methods, pretesting the interview guide and describing the TCA process, this research contributed to transferability of similar interventions [46].

In reflection, a study strength was to interpret findings using a theoretical framework that somewhat prevented the researchers' own assumptions as health promoters to influence interpretations. Yzer [17] indicated that designing health interventions according to the IHBM produce maximally effective messages for different populations. The IHBM contributed to uncover that although South Africans have HIV/AIDS knowledge, often their perspectives are value-laden and culturally mediated, which differently affected the personal agency and confidence of ethnic groups on health protective actions. Health promoting programmes, customised according to the sociocultural realities of ethnic groups, should therefore accompany biomedical interventions. This could improve cultural acceptability of HIV/AIDS prevention programmes and better understanding to encourage community discourses, reflection and ownership. Moreover, research by Wood and Goba [47] on SA teacher training, confirmed that current HIV/AIDS education does not include support for the lived realities of learners or teachers.

## Recommendations

*Practice:* HIV/AIDS prevention programmes are among key public health interventions [1]. Therefore, practitioners should incorporate ethnicity and communities' cultural perspectives to take HIV/AIDS programmes to national scale and evaluate programmes for sociocultural acceptance by targeted groups. Empowering women should form part of all HIV prevention programmes to strengthen their negotiating skills in relationships and ability to improve their economic status [35]. In this study, women strongly advised community involvement to formulate HIV/AIDS health promoting messages and select communication channels to close the gap between educational messages and social realities. Support groups should be implemented among White South Africans who professed non-exposure to HIV knowledge, since such social spaces have been powerful in helping with understanding the severity of HIV-risks and cultivating self-efficacy to take protective mea-

asures and undergoing VCT [37,38,48]. Peer-delivered counseling before HIV-testing proved further potential to influence communities towards cues-for-action [49].

*Policy:* In many countries, the UNAIDS [1] observed a lack of comprehensive strategies to implement HIV/AIDS prevention programmes with a social and behavioural approach, as was confirmed by lay perspectives in this qualitative research. Policy-makers should prioritise such a national implementation strategy. This could include reviewing the HIV/AIDS school curriculum to incorporate social realities of *all* South Africans to eliminate boredom and misconceptions [30,46]. Prioritising programmes to reach White people, adults aged over 40 years, and rural Coloureds can benefit these groups. Discreet placement of free condoms in bathrooms rather than on clinic counters could contribute to respect and acknowledgement of human rights with community involvement in the improvement of condoms to increase their acceptability.

*Research:* Connelly et al. [50] investigated HIV prevalence among health workers in two public hospitals in SA, finding that one in every seven nurses was HIV-positive. Therefore, although this study specifically examined perspectives of the lay populace, future research could include health workers in their roles as service providers *and* infected people, to contribute their insights for improved HIV/AIDS prevention programmes. Communities made sense of HIV/AIDS prevention programmes within their sociocultural realities, predicted by the IHBM to determine perceived risk. As in this study, Maticka-Tyndale and HP4RY Team [51] reported on benefits of theoretical frameworks to strengthen HIV/AIDS interventions among Nigerian communities. Future research could therefore use social theories such as the IHBM to assess cultural acceptability of HIV/AIDS prevention programmes, making the healthy choice, the easy choice for all South Africans.

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## References

1. UNAIDS. 2013. Global Report: UNAIDS Report on the Global AIDS epidemic. Geneva, Switzerland; 2013.
2. Mayosi BM, Lawn JE, van Niekerk A, Bradshaw D, Abdool Karim S et al. Health in South Africa: changes and challenges since 2009. *Lancet*. 2012, 380(9858): 2029-2043.
3. Padayatchi N, Naidoo K, Dawood H, Kharsany A, Abdool Karim Q. A Review of Progress on HIV, AIDS and Tuberculosis. In Fonn S, Padarath A (eds). *South African Health Review 2010*. Durban: Health Systems Trust. 2010, 87-97.
4. South African Department of Health (SA DOH). National

- Strategic Plan on HIV, STIs and TB 2012-2016; 2011.
5. WHO. Progress report 2011: Global HIV/AIDS response: Epidemic update and health sector progress towards universal access. World Health Organisation, UNICEF, UNAIDS. Geneva, Switzerland; 2011.
  6. Hankins CA, de Zaluondo BO. Combination prevention: a deeper understanding of effective HIV prevention. *AIDS*. 2010, 24(Suppl. 4): S70-S80.
  7. Dworkin SL, Colvin C, Hatcher A, Peacock D. Men's Perceptions of Women's Rights and Changing Gender Relations in South Africa: Lessons for Working with Men and Boys in HIV and Antiviral Programs. *Gender & Society*. 2012, 26: 97-120.
  8. Futterman D, Shea J, Besser M, Stafford M, Desmond K et al. Mamekhaya: a pilot study combining a cognitive-behavioral intervention and mentor mothers with PMTCT services in South Africa. *AIDS Care*. 2010, 22(9): 1093-1100.
  9. Thomas K. A better life for some: the *loveLife* campaign and HIV/AIDS in South Africa. *Agenda*. 2004, 62: 29-35.
  10. Selikow T, Flisher AJ, Mathews C, Ketye T. Media messaging: a synthesis of lessons from the literature to inform HIV prevention amongst young people. *J Child Adolesc Ment Health*. 2006, 18(2): 61-72.
  11. Nduna M, Mendes J. Negative stereotypes examined through the HIV and AIDS discourse: qualitative findings from white young people in Johannesburg, South Africa, *SAHARA J*. 2010, 7(3): 21-27.
  12. Maharaj P, Cleland J. Ethnicity and sexual lifestyles among college students in a high-risk environment, Durban, South Africa. *AIDS Care*. 2008, 20(7): 838-841.
  13. Boon H, James S, Ruiter RAC, Van der Borne B, Williams E. Explaining perceived ability among older people to provide care as a result of HIV and AIDS in South Africa. *AIDS Care*. 2010, 22(4): 399-408.
  14. Green EC, Dlamini C, Erricco N, Ruark A, Duby Z. Mobilising indigenous resources for anthropologically designed HIV-prevention and behaviour-change interventions in southern Africa. *Afr J AIDS Res*. 2009, 8(4): 389-400.
  15. Rosenstock IM, Strecher VJ, Becker MH. Social Learning Theory and the Health Belief Model. *Health Educ Q*. 1988, 15(2): 175-183.
  16. Fishbein M, Yzer MC. Using Theory to Design Effective Health Behavior Interventions. *Commun Theory*. 2003, 13(2): 164-183.
  17. Yzer MC. The Integrative Model of Behavioral Prediction and message-based HIV prevention. In: Swanepoel PH, Hoeken H (eds), *Adapting health communication to cultural needs: Optimizing documents in South African health communication on HIV/AIDS*, Amsterdam: Benjamins 2008: 49-69.
  18. Hunter DJ. The policy context and growing importance of health. In: *Managing for Health*. Oxford: Routledge. 2007: 8-27.
  19. Gabe J, Bury M, Elston MA. *Key Concepts in Medical Sociology*, London, UK: Sage. 2004.
  20. Dorrington R, Johnson L, Bradshaw D, Daniel TJ. The Demographic Impact of HIV/AIDS in South Africa. National and provincial indicators for 2006. Cape Town: Centre for Actuarial Research, South African Medical Research Council and Actuarial Society of South Africa. 2006.
  21. Groenewald P, Bradshaw D, Krige F, van Niekerk M, Champion F et al. Cause of death and premature mortality in Cape Winelands and Overberg Districts 2004-2006. Cape Town: South African Medical Research Council. 2009.
  22. Marshall MN. Sampling for qualitative research. *Fam Pract*. 1996, 13(6): 522-525.
  23. Anderson KG, Beutel AM, Maughan-Brown B. HIV risk perceptions and first sexual intercourse among youth in Cape Town, South Africa. *Int Fam Plan Perspect*. 2007, 33(3): 98-105.
  24. Bridges JFP, Selck FW, Grey GE, McIntype JA, Martinson NA. Condom avoidance and determinants of demand for male circumcision in Johannesburg, South Africa. *Health Policy Plan*. 2011, 26(4): 298-306.
  25. Anderson R. *Thematic content analysis (TCA), Descriptive presentation of qualitative data*. 2007.
  26. Burnard P, Gill P, Stewart K, Treasure E, Chadwick B. Analysing and presenting qualitative data. *Br Dent J*. 2008, 204: 429-432.
  27. Coates TJ, Richter L, Caceres C. Behavioural strategies to reduce HIV transmission: how to make them work better. *Lancet*. 2008, 372(9639): 669-684.
  28. Versteeg M, Murray M. Condom use as part of the wider HIV prevention strategy: Experiences from communities in the North West Province, South Africa. *SAHARA J*. 2008, 5(2): 83-93.
  29. Burgoyne AD, Drummond PD. Knowledge of HIV and AIDS in women in sub-Saharan Africa. *Afr J Reprod Health*.

- 2008, 12(2): 14-31.
30. Van Dyk AC. Perspectives of South African school children on HIV/AIDS, and the implications for education programmes. *Afr J AIDS Res.* 2008, 7(1): 79-93.
31. Petros G, Airhihenbuwa CO, Simbayi L, Ramlagan S, Brown B. HIV/AIDS and 'othering' in South Africa: The blame goes On. *Cult Health Sex.* 2006, 8(1): 67-77.
32. Kambole MM. The attitudes of physiotherapists in Gaborone and Ramotswa, Botswana, towards treating people living with HIV/AIDS. MSc Dissertation, University of the Western Cape, South Africa; 2007.
33. Tenkorang EY, Gyimah SO, Maticka-Tyndale E, Adjei J. Superstition, witchcraft and HIV prevention in sub-Saharan Africa: the case of Ghana. *Cult Health Sex.* 2011, 13(9): 1001-1014.
34. Gacoin A. Sexuality, gendered identities and exclusion: the deployment of proper (hetero)sexuality within an HIV-prevention text from South Africa. *Cult Health Sex.* 2010, 12(4): 429-444.
35. Bastien S. Fear appeals in HIV-prevention messages: young people's perceptions in northern Tanzania. *Afr J AIDS Res.* 2011, 10(4): 435-449.
36. Commonwealth Foundation. Culture-based methods for effective HIV and AIDS prevention: what role can distance learning play? Fifth Pan-Commonwealth Forum on Open Learning Institute of Education, London; 2010.
37. Nachega JB, Knowlton AR, Deluca A, Schoeman JH, Watkinson L et al. Treatment Supporter to Improve Adherence to Antiretroviral Therapy in HIV-Infected South African Adults. *J Acquir Immune Defic Syndr.* 2006, 43(1): S127-S133.
38. Sayles JN, Macphail CL, Newman PA, Cunningham WE. Future HIV Vaccine Acceptability Among Young Adults in South Africa. *Health Ed Behav.* 2010, 37(2): 193-210.
39. Schatz E, Gilbert L. My heart is very painful: physical, mental and social wellbeing of older women at the times of HIV/AIDS in rural South Africa. *J Aging Stud.* 2012, 26(1): 16-25.
40. Kahn K, Tollman S, Thorogood M, Connor M, Garenne M et al. Older Adults and the Health Transition in Agincourt, Rural South Africa: New Understanding, Growing Complexity. National Research Council (US) Committee on Population; Cohen B, Menken J, (eds). Washington (DC): National Academies Press (US); 2006.
41. SVRI. Fact Sheet: The link between Sexual Violence and HIV. 2012.
42. Corless IB. Health Literacy: Challenges to HIV Knowledge. *J J Aids Hiv.* 2015, 1(1): 1-8.
43. Cain D, Pitpitan EV, Eaton L, Carey KB, Carey MP et al. Collective Efficacy and HIV Prevention in South African Townships. *J Community Health.* 2013, 38(5): 885-893.
44. Mah TL, Halperin DT. Concurrent sexual partnerships and the HIV epidemics in Africa: Evidence to move forward. *AIDS Behav.* 2010, 14(1): 11-16.
45. Maticka-Tyndale E, Kyeremeh C. The Trouble With Condoms: Norms and Meanings of Sexuality and Condom Use Among School-Going Youth in Kenya. *Int J Sex Health.* 2010, 22(4): 234-247.
46. Lincoln Y, Guba EG. *Naturalistic inquiry.* Newbury Park, CA: Sage; 1985.
47. Wood L, Goba L. Care and support of orphaned and vulnerable children at school: helping teachers to respond. *S Afr J Ed.* 2011, 31: 275-290.
48. Pitpitan EV, Kalichman SC, Eaton LA, Cain D, Sikkema KJ et al. AIDS-related stigma, HIV testing, and transmission risk among patrons of informal drinking places in Cape Town, SA. *Ann Behav Med.* 2012, 43(3): 362-371.
49. Ti L, Hayashi K, Kaplan K, Suwannawong P, Wood E et al. Willingness to Access Peer-Delivered HIV Testing and Counseling Among People Who Inject Drugs in Bangkok, Thailand. *J Community Health.* 2013, 38(3): 427-433.
50. Connelly D, Veriava Y, Roberts S, Tsotetsi J, Jordan A et al. Prevalence of HIV infection and median CD4 counts among health care workers in South Africa. *S Afr Med J.* 2007, 97(2): 115-120.
51. Maticka-Tyndale E, HP4RY Team. Bridging Theory and Practice in HIV Prevention for Rural Youth, Nigeria. *Afr J Reprod Health.* 2012, 16(2): 39-53.