

Barriers and Strategies to Improve Men's Uptake of HIV Care Services in Rural KwaZulu-Natal, South Africa: A Qualitative Approach

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Abstract

The 2017 Joint United Nations Programme on HIV/AIDS Blind Spot report echoes the challenges as well as the benefits of men's effective utilisation of HIV services. However, men have been consistently missing from the HIV care cascade, leading to poor health outcomes in men and ongoing transmission of HIV in young women in South Africa. This study sought to understand key barriers to effective uptake of HIV services among men and potential strategies to address these challenges. Ten semi-structured telephone interviews and three workshops were conducted (from July to November 2020) with a purposive sample of men aged 21–65 years ($N = 26$) from rural KwaZulu-Natal. Broad themes were identified from the interview transcripts and analysed inductively. Masculine norms, stigma, and fear of an HIV identity were major barriers to the uptake of HIV testing among men as well as hesitancy due to perceived risks. Participants living with HIV identified various sociopsychological, structural, and COVID-related factors inhibiting the uptake of and adherence to HIV treatment. Besides condoms and circumcision, no participants had prior knowledge of pre-exposure prophylaxis. Participants suggested that men need tailored HIV/AIDS messaging and education (led by men living with HIV) about the benefits of HIV testing, treatment, and prevention. Importantly, they

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believed that community delivery of HIV services would encourage more men to engage in care. To achieve zero new infections and zero AIDS-related deaths of men in South Africa, efforts should be directed to developing tailored emotive educational and community-based interventions that address identified barriers to improve men's utilisation of HIV care services.

Keywords: men's health; HIV; South Africa; pre-exposure prophylaxis; antiretroviral therapy

Introduction

South Africa is disproportionately affected by the HIV epidemic and has doubled its efforts to achieve the ambitious Joint United Nations Programme on HIV/AIDS (UNAIDS) 95-95-95 goals: 95 per cent of all people living with HIV will know their HIV status, 95 per cent of all people diagnosed with HIV infection will be on antiretroviral therapy (ART), and 95 per cent of all people receiving sustained antiretroviral therapy will be virally suppressed (Hlongwa, Jama, et al. 2022; Simbayi et al. 2019). However, South Africa continues to record a high number of new HIV infections annually—a reality further impacted by the implementation of coronavirus (COVID-19) pandemic regulations in 2020 and 2021 that led to the temporary or permanent closure of some health facilities (Adeagbo and Naidoo 2021). Globally, South Africa has the largest HIV care programme, but gender disparities persist. Past studies have reported that men were less likely than women to use HIV care services and are more likely to die from AIDS-related illness (Bor et al. 2015; Cornell et al. 2014; Dovel et al. 2015; Fleming et al. 2016; Govindasamy et al. 2011; Hlongwa, Jama, et al. 2022; Mfecane 2012). For example, in South Africa, approximately 104,000 new HIV infections (39.2% of all adult infections) were recorded among men, an estimated 2.5 million (37% of all adults living with HIV) of men were living with HIV in 2016, and only 54 per cent were accessing antiretroviral treatment (UNAIDS 2017a).

Similarly, a recent South African national survey reveals that most men do not know their HIV status, while many others living with HIV are not on treatment and 40 per cent of those on ART were not virally suppressed (Simbayi et al. 2019). The survey also reveals reduced condom use among those aged 15–49 years (59.2% in 2008 and 48.4% in 2017), increased early sexual debut before age 15 years (10.7% in 2012 and 13.6% in 2017), and increased age-disparate sex between older males and adolescent girls (Simbayi et al. 2019). Past studies in rural KwaZulu-Natal reveal that most men living with HIV were “missing,” in that they were unaware of their HIV status, and those who knew their HIV diagnoses were either not linked to ART or were virally unsuppressed (Adeagbo et al. 2019; Chimbindi et al. 2018; Tanser et al. 2021). Although various factors explain these gender differences, growing evidence shows the impact of dominant masculine norms (e.g., men's roles as providers, physical strength, or emotional toughness) on men's low uptake of HIV services (Adeagbo et al. 2019; Dovel et al. 2015; Fleming, DiClemente, and Barrington 2016; Mfecane 2012).

To emphasise this point, men's social status is often associated with their ability to meet these various societal and communal gender roles and expectations, especially that of provider or breadwinner (Chikovore et al. 2016; Connell and Messerschmidt 2005; Courtenay 2000; Fleming and Dworkin 2016; Mfecane 2012; West and Zimmerman 1987). A global systematic review on masculinity and HIV reports the association between masculine norms and risky sexual behaviour (Jacques-Aviñó et al. 2019). In line with this, a scoping review in sub-Saharan Africa reveals that perceptions of masculinity (i.e., what it means to be a man) and masculine norms (as noted above) have created factors that inhibit or facilitate men's uptake of HIV testing (Sileo et al. 2018). Studies in Malawi, South Africa, Uganda, and Zimbabwe have reported that men feared emasculation due to the loss of their gender and familial roles, hence their reluctance to utilise HIV testing or treatment services (Mfecane 2012; Parrott et al. 2011; Siu et al. 2013; Siu et al. 2014; Skovdal et al. 2011; Van Heerden et al. 2015; Zissette et al. 2016). Apart from this, the association of HIV transmission with some men's sexual behaviours (e.g., having multiple sexual partners) in communities has a negative impact on men's health seeking behaviour. For example, research in South Africa, Uganda, and Zambia reports that men fear stigmatisation when seeking HIV services due to community perception of men as the more active "drivers" of HIV transmission (Simpson 2010; Siu et al. 2013; Van Heerden et al. 2015).

The 2017 UNAIDS Blind Spot report echoes the significance of adequately engaging men in HIV care to control the epidemic (UNAIDS 2017b). The poor uptake of HIV care services among men may further widen the existing gaps in the HIV care continuum between males and females in South Africa. To achieve zero AIDS-related mortality and morbidity in men, it is imperative to further understand the barriers in different contexts in order to co-create (with potential users) tailored and culturally affirming interventions. It is against this backdrop that the current study sought to further understand the barriers and potential strategies to improve men's uptake of HIV testing, treatment, and prevention in a rural KwaZulu-Natal district with high HIV incidence and prevalence.

Method

Study Setting

The study was conducted within the Africa Health Research Institute's (AHRI) demographic surveillance area in Hlabisa subdistrict in northern KwaZulu-Natal, South Africa. The study area is mainly rural and poor with high HIV incidence and unemployment. More than 80 per cent of young people (particularly those aged 20–24 years) in the area are unemployed. The local language is isiZulu (Shahmanesh et al. 2021).

Research Design

A qualitative study design was adopted in this study. Individual semi-structured in-depth interviews (IDIs) ($n = 10$) and participatory workshops (PW) ($n = 3$) were conducted to understand the barriers to men's effective uptake of HIV care services as well as for men to develop strategies that would encourage a greater number of them to utilise HIV services without fear of discrimination or stigma. Extensive description of the study research method has been published elsewhere (Adeagbo and Naidoo 2021). Our choice of qualitative methods, such as IDIs and PWs, provided us the opportunity to interview men and bring them together in a room to discuss potential strategies to address the barriers to the effective uptake of HIV care services.

Population and Recruitment

The study population included 26 Black African males (IDI: $n = 10$; PW: $n = 16$) between the ages of 21 and 65 years; the minimum recruitment age was 18 years. To be included in the study, the participant had to identify as a man living in the research district, aged 18 years and above, fluent in isiZulu or English, with no psychological impairment, and offered consent to participate. Participants were recruited from Hlabisa subdistrict in KwaZulu-Natal. Purposive sampling was employed when recruiting participants, focusing specifically on those who did not utilise HIV services from our previous annual household survey. A list of potential participants ($n = 201$) who had participated in the AHRI's annual survey (whether they tested for HIV or not) and had consented to be contacted for future research was obtained from the data management team. One hundred and forty-five potential participants were contacted via their mobile number on record while other numbers were invalid. Of the 145 men contacted, only 26 (IDI = 10 and PW = 16) participated in the participatory workshops although the target population was 30 men (10 per workshop). While all the IDI participants were invited to also participate in the workshops, none of them took the opportunity to participate. Some confirmed their attendance but did not show up despite the availability of financial incentives for their time and transportation. Work commitment was the main reason offered by the workshop's absentees.

Data Collection, Procedure, and Management

Following informed consent, ten telephone IDIs and three face-to-face PWs were conducted (from July to November 2020) with a purposive sample of men aged 21–65 years ($N = 26$) by trained social scientists fluent in both isiZulu (local language) and English. Both PWs and IDIs were conducted in isiZulu and audio recorded. While the IDIs lasted from 30 to 70 minutes, each PW lasted between three and four hours. Questions about perception of risk, barriers, and facilitators to HIV testing, treatment, and prevention among men were addressed during the interviews. During the PWs, different age groups of men were presented with the barriers identified in our past studies (e.g., clinic hours and stigma) and from the follow up interviews conducted for them to develop potential strategies to address those challenges to improve men's uptake of HIV care services. To limit disturbances and ensure privacy, the interviews

were conducted telephonically in a private call centre at AHRI. The choice of telephonic interviewing was to minimise physical contact due to COVID-19 regulations. The interview and workshop audio files were transcribed verbatim into text in isiZulu and subsequently translated to English by the social scientists who conducted the interviews and facilitated the workshops.

All transcripts were de-identified to protect confidentiality. The transcripts were checked and compared with the recordings during regular debriefing sessions by the three male researchers (OAA, DMG, and ZX) for quality control and to make sure that important meanings were not lost during translation. The data were stored and managed in a secure web-based shared drive with restricted access. Prior to the interviews and PWs, participants were encouraged to use pseudonyms instead of their real names to ensure confidentiality. The smaller number of IDI participants in the qualitative study is allowed since deeper meanings of concepts and thematic areas were explored (Denzin and Lincoln 2011). Due to COVID-19, workshop participants were divided into smaller groups and each group presented their potential interventions before the suggested strategies were merged. Each IDI participant received ZAR30 (US\$2) worth of mobile network airtime, while PW participants received financial incentives (including non-financial incentives such as snacks, lunch pack, study customised t-shirt and cap, face masks, and hand sanitisers) ranging from US\$15 to US\$30 depending on the distance travelled as determined by the AHRI transport unit. Growing evidence has demonstrated that the use of participatory methods (rooted in an interpretivist paradigm) can effectively facilitate the co-creation of interventions with study participants about issues that affect them (Green and Thorogood 2018; Jagosh et al. 2012). It is important to mention that the face-to-face group discussions were conducted when the strict lockdown regulations were relaxed. All COVID-19 protocols (e.g., risk assessment, temperature check, and physical distancing) were observed.

Data Analysis

Translated transcripts from the interviews and PWs were manually and iteratively coded independently by two skilled qualitative social scientists. Emerging themes were identified and subsequently developed a structured coding framework informed by the study aims. Coding was compared across coders for accuracy. Emerging themes from the interview transcripts were analysed inductively.

Results

To reiterate, of the 145 men contacted, only 26 (IDI = 10 and PW = 16) participated in the participatory workshops although the target population was 30 men (see table 1). Approximately 54 per cent ($n = 14/26$) of them were unemployed and four of the IDI participants mentioned during the interviews that they were living with HIV (see table 2). While the themes under this section present the key challenges faced by men in identifying their eligibility for HIV testing, treatment or prevention, and strategies to

overcome these challenges, the discussion section critically engages with the results of the study. In the quotations below, “P” represents participants, while “PW” represents participatory workshop, and “IDI” represents in-depth interviews.

Table 1: IDI and PW participants recruitment

Potential participants contacted (N = 145)		
Approach	Required number of participants	Actual number of participants
In-depth interview	10	10
Workshop 1	10	8
Workshop 2	10	2
Workshop 3	10	6
Total	40	26

Table 2: IDI and PW participants recruitment

Participant	Age (years)	Highest qualification	Employment status	HIV status
1	28	Grade 12	Employed	Positive
2	23	Grade 9	Unemployed	Not reported
3	35	Grade 12	Employed	Not reported
4	25	Grade 12	Employed	Not reported
5	42	Grade 9	Unemployed	Positive
6	38	Grade 12	Self-employed	Not reported
7	65	Grade 8	Unemployed	Positive
8	34	Grade 10	Unemployed	Not reported
9	24	Grade 12	Unemployed	Not reported
10	27	Grade 12	Employed	Positive

Theme 1: Factors Inhibiting Men’s Uptake of HIV Testing

Participants reported reasons such as the fear of an HIV-positive diagnosis (e.g., “it is sometimes better not to know”), their adherence to views about masculinity (e.g., men should not show weakness), and HIV stigma (e.g., being shamed and ridiculed if an HIV-positive status is disclosed) as major barriers inhibiting them from utilising HIV services. This, therefore, hampers men’s ability to navigate the available health services to legitimise their eligibility for HIV services. Some of the barriers are elaborated on in the sections below.

Men Uninterested in Knowing Their HIV Status

An interesting theme that emerged from the data is the knowledge of HIV status among men. Participants discussed their attitudes and that of other men in their community towards HIV testing. Generally, participants reported that most men in their community rarely test for HIV until they exhibit severe symptoms. As suggested, one major factor

is the idea of “manliness” in the community and how it affects men’s healthcare-seeking behaviour. The below quotes of different categories of men are instructive:

We [men] only go to the clinic when we are very ill in a way that other people can even tell that it’s really bad; we only go to the clinic when everyone sees that there’s something wrong with us. (P10, 27 years, IDI)

The following participant felt that “pride” attached to “masculinity” inhibits most men from knowing their HIV status because some of them believe that HIV testing is mainly for women:

What I suspect, eh, from him [men] is just value yourself; they used to say it’s pride—a person would just say that that’s for females and I don’t care about it. (P2, PW2)

Also, there seems to be a sense of “hopelessness” in the decision of many men to not know their HIV status. It was reported that some men do not see the need to know their HIV status given that they cannot do anything about it if they are informed that they were living with HIV:

People say they don’t want to test because even if they discover that they are infected, they can’t do anything about it. (P5, 42 years, IDI)

Inadequate HIV information also plays an important role among rural men to recognise their eligibility for HIV testing. Most men in the rural areas seem to have limited knowledge about HIV, as reported by some participants:

I also suspect their lack of education about HIV or else have time to participate in that certain workshop... Yeah, makes people not eager to go to clinic. (P1, PW2)

The Fear of an HIV Identity

The participants reported that most men are afraid of being seen at the clinics testing for HIV. They are also fearful of the prospect of testing positive because it is “shameful” to be living with HIV in the community. The following quotes express the perceptions of men about HIV testing:

It’s actually a shame that a young man is said to be HIV positive. ... They are afraid of testing for HIV because when you test positive, even if you take ART, it’s difficult to accept that you’re HIV positive, my brother. (P2, 23 years, IDI)

The problem is the fear in clinics, they [men] are afraid that if they access HIV testing service at the clinic, they will be seen by people they know and they will gossip about them... They are afraid that if people see them entering to a consultation room, they will assume that they are HIV positive. (P10, 27 years, IDI)

Fear Due to Past Condomless Sex without Pre-Exposure Prophylaxis

Participants were also afraid of finding out their HIV status due to past involvement in condomless sex. In fact, some participants described the reality of transactional condomless sex at the local tavern. There is also fear among men talking to a female nurse about HIV testing. The following quote is instructive here:

But there is that element of fear when it comes to testing for HIV because we do have sex with them [girls] but there is that fear when one has to face the consequences of their actions more especially if you were afraid of that particular girl, to find out what have you got there, you see. ... It is harder to tell what you have come to do [HIV testing] if you are faced with a female [nurse]; you get to have some fear whereas if you are seen by a male, it is much easier. (P3, PW1)

Both IDI and PW participants mentioned community taverns as a point where men and women meet for alcohol consumption and casual sex. It is a space where alcohol is abused and transactional condomless sex occurs, which heightens their fear and reluctance to test for HIV:

Oh, it's people who are not taking good care of themselves, those who spend most of their times in places like taverns and clubs, where they end up doing things that put their lives at risk when they are drunk. You find that they end up having unprotected sex with people they don't know not knowing that they are putting their lives at risk. (P6, 38 years, IDI)

Theme 2: Barriers to Men's Uptake of HIV Treatment

This theme notes six intersecting subthemes that work together to highlight aspects that inhibit men's willingness to embrace treatment.

Fear of Stigma Associated with HIV Treatment

One of the major barriers to men's effective uptake of ART is the recognition of their eligibility for HIV treatment due to HIV-related stigma. The quotation below reflects some of our participants' thoughts about accessing ART:

At first, I wasn't comfortable with collecting the treatment myself, so I was sending my partner to collect the treatment on my behalf, but as time goes by, I realised that there is no need, since we are all sick [living with HIV], there are many people who are infected, just that they don't want people to know that they are infected. (P10, 27 years, IDI)

The fear of being stigmatised has discouraged some men in this study and others not to access HIV treatment because it is seen as a "shame" to be living with HIV in their community.

Local Clinic Structure and Waiting Times

Although some men living with HIV were afraid to start treatment due to stigma, the structure of the HIV service in the local clinic is also a barrier. Coupled with long queues and waiting times, some participants reported that the HIV service has its own area within the local clinic, and it is easy to identify that they are there for HIV treatment, hence their reluctance to start treatment. Some participants' thoughts are reported below:

Something I am not fine with is when they would say I should go to the clinic and join those queues to collect treatment; in clinics it is well known that if you are carrying certain book [patient's file], you came for ARVs [antiretrovirals]. I think this is another thing which is discouraging. (P1, 28 years, IDI)

Maybe clinics should be rearranged somehow. ... The room for HIV treatment shouldn't be separated because people will easily tell that if you are going to that room, you are collecting such treatment. (P2, PW3)

Fear of Anticipated Side Effects

Another barrier to men's uptake of ART is the fear of side effects such as bad dreams. Some men living with HIV have heard from other men on ART of bad experiences about its side effects. Some were afraid that HIV treatment would affect their daily routine, especially their roles as providers or husbands:

Eh, you would hear others sharing that if you are recently started the treatment, you experience the side effects. If you are working as a truck driver, you will have weird dreams, feel as your truck has been involved in a tragic accident. You will wake up sweating like hell and crying. (P6, 38 years, IDI)

Fear of Losing Loved Ones

HIV status disclosure also plays an important role in men's decision to start HIV treatment. Participants mentioned that it is difficult for some men to disclose that they are living with HIV after testing positive. Men's social status could be linked to the fear of losing their loved ones and of being marginalised; hence, some decide to conceal their HIV-positive status:

Oh, some are afraid that they are not the only ones that will know if they are infected, so they might lose some people in their lives [partners]. ... There are no challenges other than that ... of disclosing their status to their partners because they are afraid that they might lose them. (P5, 42 years, IDI)

Self-Denial and Job Loss

As reported, self-denial of positive HIV status could also inhibit men's decision to start HIV treatment if they are living with HIV. This can be caused by the fear of losing their social status or job:

Yes, the first challenge can be the denial. Eh, yes it can be the denial and depression, which can cause one to make bad decisions. They may even take bad decisions such as not to use protection [condoms] to protect their sexual partners. (P4, 25 years, IDI)

The following participant reported that some of his friends living with HIV lost their jobs due to AIDS-related illness. This could be as a result of not starting ART promptly after a positive diagnosis and due to various factors, such as self-denial:

Eh, based on the knowledge I have, the people that I spend most of the time with usually say not having a job hinders them from taking their treatment accordingly. You may find that they have lost their job because they are very sick. (P5, 42 years, IDI)

Impact of COVID-19 Pandemic Lockdown on Men's Access to ART

While some participants believed that the COVID-19 pandemic lockdown impacted men's access to HIV care, others felt it did not. Some participants (including those living with HIV) described how COVID-19 regulations disrupted men's access to HIV care:

COVID-19 had a great effect, it had a massive effect because even myself, although I have been on treatment for years, and I am now collecting my treatment from the pharmacy, not at the clinic, but we do go back to the clinic after some time to re-register. But ever since I heard people saying there were many cases [COVID-19] confirmed in XXXX [clinic name redacted] clinic, I am afraid to go to the clinic. So, there are people who have defaulted from their treatment because they are afraid to go to the clinic because of COVID-19. (P5, 42 years, IDI)

While some men were afraid of contracting COVID-19, the following participant explained the impact of police harassment on receiving HIV treatment during the lockdown:

Yeah, and this situation get spread because once you try to walk in the street the police will come and beat you, and just find yourself going back to the house so dusty such that you can't even remember where you were going. And you can't keep on explaining to the police that 'right now I have to go and collect my pills,' no... So, if you get smacked then people will stay indoors, relax, and just forget that they need to take their treatment [ART]. (P2, 23 years, IDI)

However, few participants mentioned that COVID-19 regulations did not affect their access to HIV care:

COVID-19 lockdown hasn't affected my access to HIV-related services because I went to the clinic and talked with the health professional. I explained to him/her that I am not happy with having multiple trips to the clinic to collect the treatment because of this pandemic. ... They were able to give me the treatment for three months. (P10, 27 years, IDI)

Theme 3: Barriers to Actioning HIV Prevention Methods

During the interviews, most participants mentioned voluntary medical male circumcision (VMMC), protected sex with a condom, and abstinence as the main HIV prevention methods that they know of. None of the study participants had any prior knowledge of pre-exposure prophylaxis (PrEP) as a viable HIV prevention method. Access, myths about circumcision, and limited knowledge are key barriers to HIV prevention among the study participants.

Accessibility, Circumcision Myths, and Limited PrEP Knowledge

Some participants mentioned that access to HIV prevention methods is a major challenge to men, especially those living in the rural areas. This is further complicated by the general belief that circumcision ultimately protects them from contracting HIV even if they had sex without a condom or PrEP. One participant said this:

No, I would be lying if I can say in rural area HIV prevention methods are accessible for those who have tested negative. The other factor that we shouldn't turn a blind eye to, is that many young people believe that if they got circumcised that means chances are very slim for them to be infected with HIV. That is where many young people got infected with this virus, because they run to the health facilities to access VMMC service then practice unprotected sex with a mentality that they are less likely to contract HIV since they are circumcised. (P5, 42 years, IDI)

After the interviewer had provided the following participant with information about PrEP and how it prevents HIV, the young man shared his experience of how he thinks most men can benefit from PrEP:

I don't think they [men] can experience any challenge with starting PrEP if they are well taught about this pill, because this pill can help them a lot. Well maybe after they are taught about it [after they discovered that they are not infected], they can be motivated to do all in their powers to ensure that they protect themselves from contracting HIV. (P4, 25 years, IDI)

Theme 4: Strategies to Improve Men's Candidacy for Effective Uptake of HIV Care Services

In response to the barriers, participants collectively identified different strategies that could improve men's uptake of HIV care services in their local settings.

Improve Men's HIV Knowledge through Education

All the participants reported that educating men about the importance of HIV testing, treatment, and prevention using different approaches, such as community outreach and peer champions, would encourage more men to understand the need for HIV services, thereby improving their health outcomes. Some of the participants shared ideas about

how men, especially those who do not know their HIV status or those living with HIV but not in care, can be educated about how HIV services could be beneficial to them:

They [men] need to know why it is important, why they need to test in the first place. If they can get enough information about that, I think they can see a need to test. I think information is the solution, if you can thoroughly explain to them about the importance of adhering to the treatment even if their condition has improved and they feel much stronger. So, I think they need to be taught about the benefits of taking the treatment accordingly, and about the risks associated with defaulting from treatment. (P4, 25 years, IDI)

Role Models and Traditional Leadership

As suggested by the participants, another way of educating men to engage with HIV care services is through community role models and traditional leadership. Some participants suggested that men who are living with HIV and currently active on ART should be encouraged to talk to other men about its benefits:

Education can be a solution because if a person can hear from someone they know disclosing that they have been using ARVs for so long, I think they can be encouraged that even if they can test positive, they can still live longer. (P5, 42 years, IDI)

Some participants also believe that traditional leaders will play key roles in educating men about HIV care:

Go to area traditional leadership [*iziNduna*] and ask to invite the community, and then teach them when you get to them. (P7, 65 years, IDI)

Provision of Tailored and Confidential Community/Home-Based HIV Care Services

Most participants suggested that tailored and confidential community-based HIV testing and treatment services, such as mobile clinics and home-based HIV testing, could alleviate men's fear and encourage them to utilise HIV care services. Access to HIV self-testing kits was also alluded to. When asked about what could make them and other men utilise HIV services, some participants said the following:

If they [men] were to be visited at home, I think that's an easy way we can use to motivate/encourage them. ... So, the one who end up knowing your status will be the one who is offering you the testing service and yourself because we are reluctant to go and access those services at the clinic. (P10, 27 year, IDI)

Also, some participants believe that most men will test for HIV if they have access to confidential HIV testing options, such as HIV self-testing, that provide them with the opportunity to test privately in their own time:

So, having free HIV testing kits readily available will make it easy to find out once you are infected, and then there should be ways of getting treatment at any time not only at

the clinic. This is because at the clinic it is where I will find challenges of those sisters [nurses] who will say, ‘Err, I saw XXXXX [person’s name redacted] boyfriend there,’ and it will get to XXXX [person’s name redacted] and will not sit well. (P5, PW3)

The following participant suggested community supply of ART following HIV-positive diagnosis. The quote below represents what one participant thinks would encourage more men living with HIV to start treatment:

Well, when it comes to HIV testing you can test, but when it comes to collecting this thing [ARVs], it’s bad. ... Ah, something that can be done which I feel can help us is that when these AHRI staff knows that this man is HIV positive, they should bring him his ART. (P2, 23 years, IDI)

Some participants emphasised the need for male nurses or healthcare workers to attend to men rather than female nurses. They believe it is sometimes difficult for a male patient to discuss his health issues with a female nurse. This is understandable given that the rural community is patriarchal in nature. The following workshop participant shared his thoughts:

It is difficult sometimes for a male to tell a female [nurse] your problem. It would be always better if we were seen [counselled] by male nurses. (P1, PW3)

Discussion

Our study reveals that men were less likely to test for HIV due to several barriers including stigma, masculine norms, lack of confidentiality, and judgemental attitudes of service providers. Fear of HIV testing was partly due to past condomless sex without PrEP of some participants while others were afraid of stigmatisation (including self-stigmatisation) if they were diagnosed to be living with HIV. It was reported that most men (including some of the participants) would rather not know their status because they believe it is a “shame” to be living with HIV. Arguably, an HIV-positive diagnosis undermines a man’s status (e.g., as a provider) in the broader community. It is then logical that men will be fearful about being exposed and shamed. This finding corroborates the results of other studies that documented men’s perception of HIV status and stigma as a direct attack on masculinity, social status, and self-esteem (Chikovore et al. 2016; Fleming, DiClemente, and Barrington 2016; Mburu et al. 2014; Mfecane 2012; Wyrod 2011). Although masculinity is not a personal construct, men often demonstrate masculine “norms” through their actions and relationships, which are imposed by social institutions (e.g., community, school) including social networks (Connell 1995; Dworkin et al. 2015; Jacques-Aviñó et al. 2019; Mfecane 2016; Morrell et al. 2013). While the path to accessing HIV testing services requires an active engagement of the user with the available health systems, fear of an HIV-positive status and stigma were major barriers among our participants.

Similarly, barriers to effective uptake of HIV treatment among our participants and other men in the community include self-denial of HIV-positive diagnoses, perceptions of undermined masculine identities, recognition of stigma, HIV disclosure, implications of the COVID-19 lockdown, clinic settings and waiting times, and anticipated side effects of ART. Illness identity is an important stage of an individual's candidacy, and how it is navigated and adjudicated by a healthcare provider (Adeagbo et al. 2019). Some South African studies conducted on men living with HIV revealed that HIV negates "manliness" as some men were concerned about losing their jobs or their inability to be a "provider," hence their reluctance to start HIV treatment (Chikovore et al. 2016; Hanass-Hancock et al. 2015; Sikweyiya et al. 2014; Van Heerden et al. 2015).

As alluded to already, some participants were afraid to collect HIV treatment medications at their local clinic while some were in denial of their HIV-positive status due to HIV-related stigma. Participants were also afraid of the structure of the clinical settings as those who are there for HIV treatment can be easily identified by where they receive the service. Waiting times and long queues were barriers to some of them, and they feared that the healthcare provider might know them and share their information with someone within the community. Although some government healthcare facilities were open during COVID-19 lockdown, some study participants living with HIV reported that COVID-19 disrupted their HIV treatment uptake or continuation. While some were afraid of contracting COVID-19, some were also afraid of being arrested and questioned about their whereabouts by law enforcement officers, which could lead to inadvertent disclosure of their HIV status. They preferred to miss ART than to contract COVID-19 or to explain themselves to a police officer who could, as a result, discriminate against them. The men in our study were afraid of ART side effects that could potentially affect their jobs. They often reassess their eligibility for HIV treatment based on their personal experiences and those of other men living with HIV. Substantiating our findings, some South African studies found that perceived side effects, masculine norms, stigma, clinic waiting times, and poverty were key barriers to men's uptake of ART in rural areas (Adeagbo et al. 2021; Chikovore et al. 2016; Fleming, DiClemente, and Barrington 2016; Hlongwa, Jama, et al. 2022; Mfecane 2012).

There was a great concern about the reactions of close friends, family members, or sexual partners should they know that they are living with HIV; hence, the reluctance of some of them to assert their candidacy by starting ART. Disclosure of an HIV-positive status has significant implications for public health outcomes, social relationships, and individual psychological and emotional wellbeing. For example, a study that investigated masculinity-related barriers to uptake of HIV treatment in rural Limpopo and Eastern Cape areas of South Africa revealed that men's capability to express vulnerability and discuss HIV publicly with others increased their readiness to utilise HIV services (Fleming, DiClemente, and Barrington 2016). Similarly, a 14-month ethnographic study of 25 men living with HIV in rural South Africa revealed that the men studied regained their "social status" that was previously undercut by AIDS-

related illness by taking HIV treatment and talking publicly about their HIV status (Mfecane 2012). Thus, men's public disclosure of HIV status can challenge and turn around the "social stigma" attached to HIV/AIDS. This will need social support and collective action within the communal context.

It was noted that there was limited access to HIV prevention in the rural areas and no participant had prior knowledge of PrEP as a viable HIV prevention method besides condoms and VMMC. One of the contributing factors of inconsistent condom use among our study participants and other men is the inaccurate information that VMMC will protect them against contracting HIV. This finding is not unique to the current study given that the recent national survey conducted in South Africa highlighted a drastic reduction in condom use (Simbayi et al. 2019). Affirming our findings, prior studies reveal that South African men are less likely than women to test for HIV, disclose their positive HIV status, or seek ART or PrEP due to barriers such as the persistence of stigma and masculine norms (Chikovore et al. 2016; Fleming, DiClemente, and Barrington 2016; Hlongwa, Jama, et al. 2022; Mfecane 2012; Sileo et al. 2018).

To address some of the barriers described above, our study participants collectively identified strategies that could help in identifying and asserting their candidacy for HIV testing, treatment, prevention, and care services irrespective of the challenges they are confronted with. They suggested that men (including themselves) need further education and tailored information about the benefits of HIV testing (including self-testing), treatment, and prevention. The strategy to boost understanding would be to draw on the goodwill of high-profile and respected men in the community. The use of peer role models should also be encouraged to educate men about HIV care. Importantly, they believed that friendly, confidential, community-based (e.g., mobile clinics) HIV care services for men would reduce stigma and encourage more men to utilise HIV services. Whoever is actively involved in educating, encouraging, and guiding men, should utilise an intersectional lens: that is, they should themselves be retrained to identify the constraining effects of group identities as these relate to age, rurality, poverty, unemployment, masculinity, ethnicity, and education level among others. Without addressing these intersections simultaneously, a meaningful approach to the "missing men" phenomenon will not be realised.

While the need to educate men about HIV treatment cascade and care is well documented and crucial to halt HIV transmission (Fleming et al. 2016; Jacques-Aviñó et al. 2019; Sileo et al. 2018), there seems to be a disjunction in the delivery of HIV/AIDS messaging especially for men (Walker 2022). There is a growing amount of literature that indicates that HIV/AIDS awareness messaging is associated with fatigue that may hinder public health efforts (Chiu et al. 2017; LaCroix et al. 2014; Walker 2021; 2022). Thus, there is a need for context-based, tailored, emotive messaging for HIV/AIDS education for men in South Africa.

Finally, some community-based HIV studies have shown modest or significant improvement in men's uptake of HIV care services (Gilbert et al. 2021; Hlongwa, Cornell, et al. 2022; Lippman et al. 2022). Research has shown that men who are living with HIV can be role models to other men to reduce HIV transmission among men (Hlongwa, Cornell, et al. 2022; Mfecane 2012). For example, a recent peer-led pilot study among men living with HIV in South Africa found that 95 per cent ($n = 3,653/3,848$) of all participants were active on ART six months post-intervention due to peer support they received from other men living with HIV (Hlongwa, Cornell, et al. 2022). The compelling study by Hlongwa, Cornell, et al. (2022) should, however, be interpreted with caution given that it was not a long-term study. Similarly, a community-based peer-to-peer intervention trial that sought to improve PrEP knowledge and uptake among young people in rural South Africa found high PrEP uptake among males after adequate information was provided (Shahmanesh et al. 2021). Despite the growing evidence about men's low uptake of HIV services in South Africa (Chikovore et al. 2016; Fleming, DiClemente, and Barrington 2016; Mfecane 2008; 2012; Van Heerden et al. 2015), little is known about the specificity of those barriers and strategies to improve men's uptake of HIV testing, treatment, and prevention. This study contributes to the building of a more substantive literature and the ongoing debate about how to effectively engage men in HIV services in order to reduce the persistently high HIV incidence in South Africa (Adeagbo et al. 2021; Hlongwa, Jama, et al. 2022; Tanser et al. 2021).

Limitations and Strengths

As a qualitative study, generalisations may be limited to the participant group due to research settings, sampling, and sample size. However, the key findings of this study may be transferable to men in other resource-constrained settings with similar profiles. Although an attempt was made to explore varied experiences and perspectives of men, our findings may not be reflective of experiences of all men, especially underrepresented groups such as gay, bisexual, and men who have sex with men (GBMSM). Efforts should be made in future research endeavours to employ innovative recruitment strategies to include GBMSM (especially those living in rural areas).

The above noted, the combination of individual interviews and participatory workshops highlights the strength of this study as it afforded us the opportunity to draw on a range of personal experiences of men about HIV testing, treatment, and prevention. The variability in participants' experiences and perceptions of the HIV care continuum add nuance to our understanding of the various barriers as well as the development of potential strategies to mitigate those barriers to improve their health outcomes.

Conclusion

Masculine norms, fear, and stigma associated with an "HIV identity" permeate the study participants' lives, thereby impeding their uptake of HIV testing, treatment, prevention,

and care services. Importantly, how men see their roles as men and living these identities cannot be ignored in HIV care services since they are critical and defining realities. Efforts should be directed to developing tailored educational and community-based interventions that can reduce some existing barriers (e.g., stigma and limited access to care) for men to effectively utilise HIV services. This will not only benefit them but also their sexual partners, thereby halting the onward transmission of HIV.

Our findings reveal that men often weigh up the costs and benefits of HIV testing, linkage to ART, and disclosing their HIV-positive diagnoses. Effective HIV policy and tailored information would encourage more men to test for HIV, boost PrEP uptake, and aid their disclosure of HIV-positive diagnoses as this is critical for future treatment adherence, feelings of stigma, future disclosure, and overall health behaviours. There is a need for reorientation and sensitisation of clinical staff, utilisation of an intersectional lens, and inclusion of more male nurses/clinicians and counsellors in clinical settings. Future HIV strategic plans, policies, and interventions must prioritise men to eradicate HIV epidemics in South Africa.

Ethics Approval and Consent to Participate

This study was approved by the Research Ethics Committee at the University of Johannesburg (UJ) (Reference: REC-02-067-2020) and the University of KwaZulu-Natal (UKZN) (Reference: BREC/00001372/2020). All the researchers including IDI interviewers and workshops facilitators received adequate training on research ethics such as confidentiality and voluntary participation. Although we did not promise absolute confidentiality during the participatory workshops, we encouraged all participants to be discreet about personal information. We ensured confidentiality at all levels of the research process and no participants' identifying information was used in any of our reports or presentations. Verbal permission to audiotape the qualitative interviews and participatory workshops (including signed consent) was obtained from the participants and all data were kept secured in a password-protected computer. Audiotapes and transcripts were destroyed as soon as the data analysis was completed. No names were used during the interviews or group discussions. Participants were provided with adequate information about the study, and they were allowed to ask questions for clarification prior to their involvement in the study. Voluntary informed consent was obtained, and this study conforms to the ethical guidelines and standards of AHRI, UKZN, and UJ.

Competing Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Authors' Contributions

Oluwafemi Adeagbo conceived the study. Oluwafemi Adeagbo wrote the initial draft of the manuscript. Oluwafemi Adeagbo, Kammila Naidoo, Zakhile Xulu, and Dumsani Gumede provided critical comments which improved the scientific quality of the manuscript. All authors approved the final draft of the manuscript for submission.

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Availability of Data and Materials

Data are available upon reasonable request. All data requests should be directed to the Africa Health Research Institute data head. A link to an anonymised data will be shared with the requester after internal assessment approval has been granted by the data committee.

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References

- Adeagbo, O., H.-Y. Kim, F. Tanser, S. Xulu, N. Dlamini, V. Gumede, T. Mathenjwa, T. Bärnighausen, N. McGrath, A. Blandford, J. Seeley, and M. Shahmanesh. 2021. "Acceptability of a Tablet-Based Application to Support Early HIV Testing among Men in Rural KwaZulu-Natal, South Africa: A Mixed Method Study." *AIDS Care* 33 (4): 494–501. <https://doi.org/10.1080/09540121.2020.1742867>
- Adeagbo, O., and K. Naidoo. 2021. "Engaging the 'Missing Men' in the HIV Treatment Cascade: Creating a Tailored Intervention to Improve Men's Uptake of HIV Care Services in Rural South Africa: A Study Protocol." *International Journal of Environmental Research and Public Health* 18 (7): 3709. <https://doi.org/10.3390/ijerph18073709>
- Adeagbo, O., C. Herbst, A. Blandford, R. McKendry, C. Estcourt, J. Seeley, and M. Shahmanesh. 2019. "Exploring People's Candidacy for Mobile Health-Supported HIV Testing and Care Services in Rural KwaZulu-Natal, South Africa: Qualitative Study." *Journal of Medical Internet Research* 21 (11): e15681. <https://doi.org/10.2196/15681>

- Bor, J., S. Rosen, N. Chimbindi, N. Haber, K. Herbst, T. Mutevedzi, F. Tanser, D. Pillay, and T. Barnighausen. 2015. "Mass HIV Treatment and Sex Disparities in Life Expectancy: Demographic Surveillance in Rural South Africa." *Plos Medicine* 12 (11): e1001905. <https://doi.org/10.1371/journal.pmed.1001905>
- Bowleg, L., M. Teti, J. S. Massie, A. Patel, D. J. Malebranche, and J. M. Tschann. 2011. "What Does It Take To Be a Man? What Is a Real Man?": Ideologies of Masculinity and HIV Sexual Risk among Black Heterosexual Men." *Culture, Health & Sexuality* 13 (5): 545–559. <https://doi.org/10.1080/13691058.2011.556201>
- Chikovore, J., N. Gillespie, N. McGrath, J. Orne-Gliemann, and T. Zuma, on behalf of the ANRS 12249 TasP Study Group. 2016. "Men, Masculinity, and Engagement with Treatment as Prevention in KwaZulu-Natal, South Africa." *AIDS Care* 28 (sup3): 74–82. <https://doi.org/10.1080/09540121.2016.1178953>
- Chimbindi, N., N. Mthiyane, I. Birdthistle, S. Floyd, N. McGrath, D. Pillay, J. Seeley, T. Zuma, J. Dreyer, and D. Gareta. 2018. "Persistently High Incidence of HIV and Poor Service Uptake in Adolescent Girls and Young Women in Rural KwaZulu-Natal, South Africa Prior to DREAMS." *PloS One* 13 (10): e0203193. <https://doi.org/10.1371/journal.pone.0203193>
- Chiu, C., L. F. Johnson, L. Jamieson, B. A. Larson, and G. Meyer-Rath. 2017. "Designing an Optimal HIV Programme for South Africa: Does the Optimal Package Change When Diminishing Returns Are Considered?" *BMC Public Health* 17: 1–9. <https://doi.org/10.1186/s12889-017-4023-3>
- Connell, R. W. 1995. *Masculinities*. Berkeley: University of California Press.
- Connell, R. W., and J. W. Messerschmidt. 2005. "Hegemonic Masculinity: Rethinking the Concept." *Gender & Society* 19 (6): 829–859. <https://doi.org/10.1177/0891243205278639>
- Cornell, M., R. Lessells, D. B. Garone, J. Giddy, L. Fenner, M. Landon, and A. Boule. 2014. "Mortality among Adults Transferred and Lost to Follow-up from Antiretroviral Therapy Programmes in South Africa: A Multicentre Cohort Study." *Journal of Acquired Immune Deficiency Syndromes (1999)* 67 (2): e67. <https://doi.org/10.1097/QAI.0000000000000269>
- Courtenay, W. H. 2000. "Constructions of Masculinity and Their Influence on Men's Well-Being: A Theory of Gender and Health." *Social Science & Medicine* 50 (10): 1385–1401. [https://doi.org/10.1016/S0277-9536\(99\)00390-1](https://doi.org/10.1016/S0277-9536(99)00390-1)
- Denzin, N. K., and Y. S. Lincoln, eds. 2011. *The SAGE Handbook of Qualitative Research*. Thousand Oaks: SAGE.
- Dovel, K., S. Yeatman, S. Watkins, and M. Poulin. 2015. "Men's Heightened Risk of AIDS-Related Death: The Legacy of Gendered HIV Testing and Treatment Strategies." *AIDS (London, England)* 29 (10): 1123. <https://doi.org/10.1097/QAD.0000000000000655>

- Dworkin, S. L., P. J. Fleming, and C. J. Colvin. 2015. "The Promises and Limitations of Gender-Transformative Health Programming with Men: Critical Reflections from the Field." *Culture, Health & Sexuality* 17 (sup2): 128–143. <https://doi.org/10.1080/13691058.2015.1035751>
- Dworkin, S. L., A. M. Hatcher, C. Colvin, and D. Peacock. 2013. "Impact of a Gender-Transformative HIV and Antiviolence Program on Gender Ideologies and Masculinities in Two Rural, South African Communities." *Men and Masculinities* 16 (2): 181–202. <https://doi.org/10.1177/1097184X12469878>
- Fleming, P. J., C. Colvin, D. Peacock, and S. L. Dworkin. 2016. "What Role Can Gender-Transformative Programming for Men Play in Increasing Men's HIV Testing and Engagement in HIV Care and Treatment in South Africa?" *Culture, Health & Sexuality* 18 (11): 1251–1264. <https://doi.org/10.1080/13691058.2016.1183045>
- Fleming, P. J., R. J. DiClemente, and C. Barrington. 2016. "Masculinity and HIV: Dimensions of Masculine Norms that Contribute to Men's HIV-Related Sexual Behaviors." *AIDS and Behavior* 20: 788–798. <https://doi.org/10.1007/s10461-015-1264-y>
- Fleming, P. J., and S. L. Dworkin. 2016. "The Importance of Masculinity and Gender Norms for Understanding Institutional Responses to HIV Testing and Treatment Strategies." *AIDS (London, England)* 30 (1): 157–158. <https://doi.org/10.1097/QAD.0000000000000899>
- Fleming, P. J., J. G. Lee, and S. L. Dworkin. 2014. "'Real Men Don't': Constructions of Masculinity and Inadvertent Harm in Public Health Interventions." *American Journal of Public Health* 104 (6): 1029–1035. <https://doi.org/10.2105/AJPH.2013.301820>
- Gilbert, H. N., M. A. Wyatt, E. E. Pisarski, S. Asimwe, H. Van Rooyen, J. Seeley, M. Shahmanesh, B. Turyamureeba, A. Van Heerden, and O. Adeagbo. 2021. "How Community ART Delivery May Improve HIV Treatment Outcomes: Qualitative Inquiry into Mechanisms of Effect in a Randomized Trial of Community-Based ART Initiation, Monitoring and Re-Supply (DO ART) in South Africa and Uganda." *Journal of the International AIDS Society* 24 (10): e25821. <https://doi.org/10.1002/jia2.25821>
- Govindasamy, D., N. van Schaik, K. Kranzer, R. Wood, C. Mathews, and L.-G. Bekker. 2011. "Linkage to HIV Care from a Mobile Testing Unit in South Africa by Different CD4 Count Strata." *Journal of Acquired Immune Deficiency Syndromes (1999)* 58 (3): 344–352. <https://doi.org/10.1097/QAI.0b013e31822e0c4c>
- Green, J., and N. Thorogood. 2018. *Qualitative Methods for Health Research*. SAGE.
- Hanass-Hancock, J., H. Myezwa, S. A. Nixon, and A. Gibbs. 2015. "'When I Was No Longer Able to See and Walk, That Is When I Was Affected Most': Experiences of Disability in People Living with HIV in South Africa." *Disability and Rehabilitation* 37 (22): 2051–2060. <https://doi.org/10.3109/09638288.2014.993432>

- Hlongwa, M., N. A. Jama, V. Mehlomakulu, D. Pass, W. Basera, and E. Nicol. 2022. "Barriers and Facilitating Factors to HIV Treatment among Men in a High-HIV-Burdened District in KwaZulu-Natal, South Africa: A Qualitative Study." *American Journal of Men's Health* 16 (5): 15579883221120987. <https://doi.org/10.1177/15579883221120987>
- Hlongwa, M., M. Cornell, S. Malone, P. Pitsillides, K. Little, and N. Hasen. 2022. "Uptake and Short-Term Retention in HIV Treatment among Men in South Africa: The Coach Mpilo Pilot Project." *Global Health: Science and Practice* 10 (1). <https://doi.org/10.1177/15579883221120987>
- Jacques-Aviñó, C., P. Garcia de Olalla, A. Gonzalez Antelo, M. Fernandez Quevedo, O. Romani, and J. A. Caylà. 2019. "The Theory of Masculinity in Studies on HIV. A Systematic Review." *Global Public Health* 14 (5): 601–620. <https://doi.org/10.1080/17441692.2018.1493133>
- Jagosh, J., A. C. Macaulay, P. Pluye, J. Salsberg, P. L. Bush, J. Henderson, E. Sirett, G. Wong, M. Cargo, and C. P. Herbert. 2012. "Uncovering the Benefits of Participatory Research: Implications of a Realist Review for Health Research and Practice." *The Milbank Quarterly* 90 (2): 311–346. <https://doi.org/10.1111/j.1468-0009.2012.00665.x>
- LaCroix, J. M., L. B. Snyder, T. B. Huedo-Medina, and B. T. Johnson. 2014. "Effectiveness of Mass Media Interventions for HIV Prevention, 1986–2013: A Meta-Analysis." *JAIDS Journal of Acquired Immune Deficiency Syndromes* 66: S329–S340. <https://doi.org/10.1097/QAI.0000000000000230>
- Lippman, S. A., A. Pettifor, M.-S. K. Dufour, C. W. Kabudula, R. Twine, D. Peacock, R. Mathebula, A. Julien, R. West, and T. B. Neilands. 2022. "A Community Mobilisation Intervention to Improve Engagement in HIV Testing, Linkage to Care, and Retention in Care in South Africa: A Cluster-Randomised Controlled Trial." *The Lancet HIV* 9 (9): e617–e626. [https://doi.org/10.1016/S2352-3018\(22\)00192-8](https://doi.org/10.1016/S2352-3018(22)00192-8)
- Mackenzie, M., E. Conway, A. Hastings, M. Munro, and C. O'Donnell. 2013. "Is 'Candidacy' a Useful Concept for Understanding Journeys through Public Services? A Critical Interpretive Literature Synthesis." *Social Policy & Administration* 47 (7): 806–825. <https://doi.org/10.1111/j.1467-9515.2012.00864.x>
- Mburu, G., M. Ram, G. Siu, D. Bitira, M. Skovdal, and P. Holland. 2014. "Intersectionality of HIV Stigma and Masculinity in Eastern Uganda: Implications for Involving Men in HIV Programmes." *BMC Public Health* 14 (1): 1–9. <https://doi.org/10.1186/1471-2458-14-1061>
- Mfecane, S. 2008. "Living with HIV as a Man: Implications for Masculinity." *Psychology in Society* (36): 45–59.
- Mfecane, S. 2012. "Narratives of HIV Disclosure and Masculinity in a South African Village." *Culture, Health & Sexuality* 14 (sup1): S109–S121. <https://doi.org/10.1080/13691058.2011.647081>

- Mfecane, S. 2016. “‘Ndiyindoda’ [I Am a Man]: Theorising Xhosa Masculinity.” *Anthropology Southern Africa* 39 (3): 204–214.
<https://doi.org/10.1080/23323256.2016.1208535>
- Morrell, R., R. Jewkes, G. Lindegger, and V. Hamlall. 2013. “Hegemonic Masculinity: Reviewing the Gendered Analysis of Men’s Power in South Africa.” *South African Review of Sociology* 44 (1): 3–21. <https://doi.org/10.1080/21528586.2013.784445>
- Nkosi, B., J. Seeley, N. Ngwenya, S. L. Mchunu, D. Gumede, J. Ferguson, and A. M. Doyle. 2019. “Exploring Adolescents and Young People’s Candidacy for Utilising Health Services in a Rural District, South Africa.” *BMC Health Services Research* 19 (1): 1–12.
<https://doi.org/10.1186/s12913-019-3960-1>
- Parrott, F. R., C. Mwafulirwa, B. Ngwira, S. Nkhwazi, S. Floyd, R. M. Houben, J. R. Glynn, A. C. Crampin, and N. French. 2011. “Combining Qualitative and Quantitative Evidence to Determine Factors Leading to Late Presentation for Antiretroviral Therapy in Malawi.” *PLoS One* 6 (11): e27917. <https://doi.org/10.1371/journal.pone.0027917>
- Shahmanesh, M., T. N. Mthiyane, C. Herbst, M. Neuman, O. Adeagbo, P. Mee, N. Chimbindi, T. Smit, N. Okesola, and G. Harling. 2021. “Effect of Peer-Distributed HIV Self-Test Kits on Demand for Biomedical HIV Prevention in Rural KwaZulu-Natal, South Africa: A Three-Armed Cluster-Randomised Trial Comparing Social Networks versus Direct Delivery.” *BMJ Global Health* 6 (suppl 4): e004574. <https://doi.org/10.1136/bmjgh-2020-004574>
- Sikweyiya, Y. M., R. Jewkes, and K. Dunkle. 2014. “Impact of HIV on and the Constructions of Masculinities among HIV-Positive Men in South Africa: Implications for Secondary Prevention Programs.” *Global Health Action* 7 (1): 24631.
<https://doi.org/10.3402/gha.v7.24631>
- Sileo, K. M., R. Fielding-Miller, S. L. Dworkin, and P. J. Fleming. 2018. “What Role Do Masculine Norms Play in Men’s HIV Testing in Sub-Saharan Africa?: A Scoping Review.” *AIDS and Behavior* 22: 2468–2479. <https://doi.org/10.1007/s10461-018-2160-z>
- Simbayi, L., K. Zuma, N. Zungu, S. Moyo, E. Marinda, S. Jooste, M. Mabaso, S. Ramlogan, A. North, J. Van Zyl, N. Mohlabane, C. Dietrich, I. Naidoo, and the SABSSM V Team. 2019. “South African National HIV Prevalence, Incidence, Behaviour and Communication Survey, 2017: Towards Achieving the UNAIDS 90-90-90 Targets.” Cape Town: HSRC Press. <http://hdl.handle.net/20.500.11910/15052>
- Simpson, A. 2010. “Christian Identity and Men’s Attitudes to Antiretroviral Therapy in Zambia.” *African Journal of AIDS Research* 9 (4): 397–405.
<https://doi.org/10.2989/16085906.2010.545650>
- Siu, G. E., J. Seeley, and D. Wight. 2013. “Dividuality, Masculine Respectability and Reputation: How Masculinity Affects Men’s Uptake of HIV Treatment in Rural Eastern Uganda.” *Social Science & Medicine* 89: 45–52.

- Siu, G. E., D. Wight, and J. A. Seeley. 2014. "Masculinity, Social Context and HIV Testing: An Ethnographic Study of Men in Busia District, Rural Eastern Uganda." *BMC Public Health* 14 (1): 1–11. <https://doi.org/10.1016/j.socscimed.2013.04.025>
- Skovdal, M., C. Campbell, C. Nyamukapa, and S. Gregson. 2011. "When Masculinity Interferes with Women's Treatment of HIV Infection: A Qualitative Study about Adherence to Antiretroviral Therapy in Zimbabwe." *Journal of the International AIDS Society* 14 (1): 1–7. <https://doi.org/10.1186/1758-2652-14-29>
- Tanser, F. C., H. Y. Kim, T. Mathenjwa, M. Shahmanesh, J. Seeley, P. Matthews, S. Wyke, N. McGrath, O. Adeagbo, and B. Sartorius. 2021. "Home-Based Intervention to Test and Start (HITS): A Community-Randomized Controlled Trial to Increase HIV Testing Uptake among Men in Rural South Africa." *Journal of the International AIDS Society* 24 (2): e25665. <https://doi.org/10.1002/jia2.25665>
- UNAIDS. 2017a. "Blind Spot: Reaching out to Men and Boys. Addressing a Blind Spot in the Response to HIV." UNAIDS. Accessed September 20, 2022. <https://movendi.ngo/science-digest/unais-addressing-blind-spot-response-hiv/>
- UNAIDS. 2017b. "A Snapshot of Men and HIV in South Africa." UNAIDS. Accessed March 15, 2023. https://www.unaids.org/sites/default/files/snapshot-men-hiv-south-africa_en.pdf
- Van Heerden, A., S. Msweli, and H. Van Rooyen. 2015. "'Men Don't Want Things to be Seen or Known about Them': A Mixed-Methods Study to Locate Men in a Home Based Counselling and Testing Programme in KwaZulu-Natal, South Africa." *African Journal of AIDS Research* 14 (4): 353–359. <https://doi.org/10.2989/16085906.2015.1121881>
- Walker, G. R. 2021. "'Out There It's YOLO': Youth Perspectives on a Mass Media HIV-and Gender-Based Violence Campaign in South Africa." *African Journal of AIDS Research* 20 (1): 79–87.
- Walker, G. R. 2022. "Emotive Media as a Counterbalance to AIDS Messaging Fatigue in South Africa: Responses to an HIV/AIDS Awareness Music Video." *AIDS Education and Prevention* 34 (1): 17–32. <https://doi.org/10.2989/16085906.2021.1872666>
- West, C., and D. H. Zimmerman. 1987. "Doing Gender." *Gender & Society* 1 (2): 125–151. <https://doi.org/10.1177/0891243287001002002>
- Wyrod, R. 2011. "Masculinity and the Persistence of AIDS Stigma." *Culture, Health & Sexuality* 13 (4): 443–456. <https://doi.org/10.1080/13691058.2010.542565>
- Zisette, S., M. H. Watt, N. S. Prose, N. Mntambo, and M. Moshabela. 2016. "'If You Don't Take a Stand for Your Life, Who Will Help You?': Men's Engagement in HIV Care in KwaZulu-Natal, South Africa." *Psychology of Men & Masculinity* 17 (3): 265–273. <https://doi.org/10.1037/men0000025>