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What role can gender-transformative programming for men play in increasing South African men's HIV testing and engagement in HIV care and treatment?

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Abstract

Men are less likely than women to test for HIV and engage in HIV care and treatment. We conducted in-depth interviews with men participating in One Man Can (OMC) – a rights-based gender equality and health program intervention conducted in rural Limpopo and Eastern Cape, South Africa – to explore masculinity-related barriers to HIV testing/care/treatment and how participation in OMC impacted these. Men who participated in OMC reported an increased capability to overcome masculinity-related barriers to testing/care/treatment. They also reported increased ability to express vulnerability and discuss HIV openly with others, which led to greater willingness to be tested for HIV and receive HIV care and treatment for those who were living with HIV. Interventions that challenge masculine norms and promote gender equality (i.e. gender-transformative interventions) represent a promising new approach to address men's barriers to testing, care, and treatment.

Keywords

masculinity; HIV; testing and treatment; gender-transformative programmes; South Africa

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Introduction

Evidence that anti-retroviral treatment (ARV) suppresses HIV and prevents its transmission to a sexual partner (Cohen *et al.* 2011) has increased efforts to promote HIV testing, linking people living with HIV to care and ARV treatment, and ensuring adherence to ARV treatment (Cohen *et al.* 2013; World Health Organization 2013). This process is sometimes termed the HIV treatment cascade (World Health Organization 2013). Ensuring that persons living with HIV do not drop out at any point along the cascade is considered by the World Health Organization (2013) to be the most promising strategy to prevent new HIV infections. One modelling study in Zambia and South Africa estimated that implementing interventions to increase HIV testing and ARV treatment for people living with HIV could reduce HIV population-level incidence by over 60% within three years (Cori *et al.* 2014).

Men globally are less likely than women to engage in each stage of the cascade (Underwood *et al.* 2014) and recent attention has focused on the fact that more men in sub-Saharan Africa die from AIDS than women, despite women having higher HIV prevalence than men (Dovel *et al.* 2015; Druyts *et al.* 2013). In South Africa – the country in the world with the largest HIV epidemic (UNAIDS 2013) and the study setting of this paper – 20% of men aged 15-49 years old tested for HIV in the last 12 months compared to 29% of women aged 15-49 (Republic of South Africa 2013). Importantly, HIV testing is the first step to entering the HIV treatment cascade. Two studies in South Africa also show that men are less likely than women to be linked to HIV care after being diagnosed with HIV (Govindasamy *et al.* 2011; Kranzer *et al.* 2010). In large multi-site cohort studies of persons living with HIV in South Africa who had initiated ARV treatment, men were significantly more likely than women to be lost to follow-up (Cornell *et al.* 2014), have a lower median CD4+ count, and higher crude and age-adjusted mortality (Cornell *et al.* 2012). Researchers in other settings in sub-Saharan Africa have found similar differences between men and women (Bila and Egrot 2009; Gari *et al.* 2014; Parrott *et al.* 2011). To reduce HIV transmission through HIV testing/care/treatment, it is therefore essential to improve our understanding of the barriers that are unique to men and what programmes can do to ameliorate this gender difference.

Several factors explain these gender differences, such as the routine testing of pregnant women which fail to engage their male partners, and institutional health system policies that give preference to women over men (Dovel *et al.* 2015). However, research has also highlighted norms of masculinity as an important component of men's reluctance to test for HIV and seek HIV care when diagnosed. While it is clear that masculinity matters for HIV risks such as sexual behaviours and violence perpetration (Bowleg *et al.* 2011; Dworkin *et al.* 2013a; Fleming *et al.* 2015; Fleming *et al.* 2014), researchers have recently begun to explore how masculine norms influence men's HIV testing, care and treatment outcomes.

The existing evidence from sub-Saharan Africa suggests that norms of masculinity are a barrier to men's HIV testing. Qualitative research by Siu, Wight, & Seeley (2014b) with men in Uganda showed that HIV testing was problematic for their masculinity because it potentially exposed their extra-marital partnerships, inhibited their opportunities for sex, and required them to admit that they potentially had a health problem and needed help. A study of HIV testing in Lesotho showed that being tested for HIV was perceived to conflict with

men's masculine self-presentation because it was perceived as feminised (DiCarlo *et al.* 2014)

With respect to the receipt of HIV care and treatment, however, research suggests that masculine norms both encourage and discourage uptake. For example, research by Siu and colleagues (2013; 2012; 2014a) in Uganda emphasised that norms of masculinity can encourage receipt of HIV care and treatment since it can enable men who are living with HIV to feel strong, be responsible, and continue working and providing for their family. In contrast, those same authors found evidence that masculine norms related to power, aggression, and sexual prowess discouraged men from receiving HIV care and treatment. In a study of black South African men living with HIV from Johannesburg and Mthatha, Sikweyiya et al. (2014) found that men felt that HIV was a sign of failure as a man. Similarly, Hanass-Hancock *et al.* (2015) found that men in KwaZulu-Natal who were living with HIV were concerned about a loss of work opportunities and inability to meet the masculine role of being a provider. In extensive ethnographic work in Mpumalanga province of South Africa, Mfecane found that men who were living with HIV recouped their masculinity by taking medication, gaining strength, and disclosing their HIV status to others (Mfecane 2012). Mfecane also found that men were hesitant to abandon traditional models of masculinity in favour of a masculinity that emphasised adherence to ARV medications and being a 'responsible' patient (2011). Dageid, Govender, and Gordon (2012) found that South African men living with HIV had to renegotiate their masculinity in order to disclose their HIV status and receive care. Similarly, several qualitative studies of men living with HIV in other African settings showed that norms of masculinity related to self-reliance and strength were in conflict with the perceived expectations of a patient receiving HIV care (e.g. follow orders from medical personnel, refraining from risk-taking) (Bila and Egrot 2009; Nyamhanga *et al.* 2013; Siu *et al.* 2013; Skovdal *et al.* 2011). Together, these findings emphasise that norms of masculinity are influential in men's engagement in the HIV treatment cascade.

Masculinity is not an individual construct but is something that is fluid is something men do through their actions, interactions, and judgements by their social networks. (Connell 1995; Courtenay 2000; West and Zimmerman 1987). Norms of masculinity are embedded within societal level gender norms and enforced by social institutions (e.g. schools, military, and government) and social networks (e.g. family members, peers) (Connell 1995). These structural gender factors shape not only men's individual behaviours, but also play an important role in creating policies that influence how HIV testing and treatment services are implemented within communities (Dworkin *et al.* 2015; Fleming and Dworkin 2016). As Dovel et al. (2015) point out, 'institutional supply-side barriers, and not solely masculinity, contribute to men's lower rates of testing and treatment.' (p. 1123). Thus, men's low uptake of services is not only about individual men's choices, but rather, is also a reflection of health institutions and societal level gender norms that structure men's environment and behaviours.

Researchers examining the masculinity-related barriers to engagement in the HIV treatment cascade have implicated HIV stigma as a key factor. Mburu et al. (2014) writes that 'HIV stigma threatens masculine notions of respectability, independence and emotional control'

(p. 1) which can prevent men living with HIV from seeking care, fulfilling the provider role, or disclosing their HIV status. Additionally, Wyrod (2011) concludes that men do not necessarily experience stigma/discrimination from others, but they experience internalised stigma because of their decreased sense of self-sufficiency and inadequacy as providers for their family. Indeed, several studies elsewhere in sub-Saharan Africa have found that men are more likely than women to report internalised stigma or feel shame about their HIV status (Shamos *et al.* 2009; Simbayi *et al.* 2007). Thus, the interaction between norms of masculinity and HIV stigma may represent an important factor impeding men's willingness to be tested for HIV and seek out care/treatment.

Despite the growing body of research on masculinity-related barriers to HIV testing/care/treatment in sub-Saharan Africa, research on these dynamics in South Africa – the country with the highest number of men living with HIV (UNAIDS 2013) – still needs further development. Additionally, little is known about how interventions specifically designed to target norms of masculinity could improve men's HIV testing and treatment outcomes.

To fill this gap, we use data collected from a qualitative evaluation research of One Man Can – a gender-transformative intervention focused on breaking down harmful norms of masculinity to (1) explore masculinity-related barriers to men's HIV testing, care, and treatment, and (2) assess potential mechanisms by which the One Man Can programme might encourage men to be tested for HIV and engage in HIV care and treatment if diagnosed. Gender-transformative interventions aim to address masculine norms that are constraining in order to improve men's and women's health and aim to shift men in the direction of more gender equality in their beliefs and behaviours (Dworkin *et al.* 2015; Dworkin *et al.* 2013a; Gupta 2000). A recent systematic review showed that these gender-transformative interventions are effective at both shifting harmful norms of masculinity and reducing men's violent and risky sexual behaviours (Dworkin *et al.* 2013a), but their effectiveness with HIV testing, care and treatment outcomes has never previously been assessed.

Methods

Study Setting

To fill this research gap, we drew upon in-depth interview data collected as part of a qualitative evaluation of One Man Can (OMC). OMC is a gender equality and health programme implemented by Sonke Gender Justice in South Africa. It began work in 2006 and has since been implemented across all 9 provinces in South Africa. In the current study, the impact of OMC was assessed qualitatively post-intervention in rural Limpopo and Eastern Cape, South Africa. OMC seeks to improve men's relationships with their partners, children, and families, reduce the spread and impact of HIV and AIDS, and reduce violence against women, men, and children. To do so, the programme uses workshops and community mobilisation activities to challenge harmful norms of masculinity that discourage men's caregiving and encourage sexual risk behaviours and violence (Colvin 2011). The main workshop themes include Gender, Power & Health; Gender & Violence; Gender, Sex & HIV/AIDS; Healthy Relationships; and Taking Action for Change (Sonke Gender Justice 2008). The Gender, Sex, & HIV/AIDS workshops are primarily focused on

gender dynamics related to HIV transmission, but there are also workshop sessions that encourage men to discuss HIV stigma and how gender norms cause men and women to experience an HIV diagnosis differently.

The overall goal of the broader parent study which was a qualitative evaluation was to better understand how the OMC programme impacted on men's individual and collective practices of masculinity and violence and sexual risk behaviours. The parent study included sixty in-depth interviews with men who participated in OMC: 30 from the Eastern Cape, and 30 from Limpopo Province. Previous findings from these data emphasise that OMC shifted attitudes towards more gender equality in terms of relationship power, reduced the perpetration of violence against women and men, reduced alcohol use, reduced sexual risk behaviours (e.g. increased condom use and fewer sexual partners), and increased respect for women's sexual decision-making (Dworkin *et al.* 2013b; Hatcher *et al.* 2014; van den Berg *et al.* 2013). In this paper, we seek to extend these findings and determine how a gender-transformative intervention such as this impacted men's willingness to engage in HIV testing, care, and treatment.

Data Collection

Participants in the 60 in-depth interviews were adult men, had completed OMC workshops in Limpopo and Eastern Cape provinces no more than six months prior to the interview. All participants were Black, South African men. The provinces for the current study were selected because Sonke Gender Justice carried out a needs assessment and determined that these are underserved rural areas that also experience high rates of poverty, high HIV seroprevalence rates, and high levels of violence and gender inequality (Colvin 2011; Pronyk *et al.* 2006). Men who participated in the programme were contacted and recruited through community partners, which included organisations focused on gender-based violence and HIV-related issues, and invited for qualitative interviews.

Men were interviewed once following programme participation, and interviews took place between February and September 2010. To minimise social desirability bias, we hired external interviewers, but who were familiar with the communities of interest. Interviewers were trained for three days in qualitative methods, ethical research practices, and techniques of probing during interviews. All interviewers were Black South African men in order to match study participants with the interviewers. Researchers were already experienced in researching sensitive topics such as gender, masculinities, HIV, and sexuality. The current study focuses on the responses to interview questions related to perceptions of HIV, HIV-related stigma, attitudes about HIV testing, care, and treatment, and how OMC changed beliefs and behaviours related to the HIV treatment cascade. Interviews were carried out in the local languages (Venda or Xhosa), were transcribed into the local language, and then into English by the research assistants who carried out the interviews. Ongoing quality control and mentorship was carried out during data collection and included monthly phone calls, transcription reviews, and clarification of transcripts. The research protocol was approved by ethics boards at the University of Cape Town, South Africa, and University of California San Francisco. Consistent with ethical research procedures in South Africa, participants were

offered R100 (about US $12) as reimbursement for time and transportation associated with participation. Interviews lasted between 1 and 2 hours.

Analysis

To create a codebook, five interviews were randomly selected and independently reviewed by the first and last author using an open-coding process employed during the initial phase of coding (Lofland and Lofland 1995). From this initial process of broad category generation, an additional four randomly selected interviews were coded. After coding for a second time, coders met to ensure full refinement of primary and secondary categories referred to as focused, intensive, or axial coding (Berg 2001; Lofland and Lofland 1995). Once the codebook was established, the remaining interviews were double coded independently by the first and last authors. Discrepancies were not common and were resolved through discussion among team members. Finally, we wrote analytical memos to capture main themes and combined multiple subcodes into a higher-level thematic analysis (Lofland and Lofland 1995). To facilitate the analysis, we used the qualitative analytical software (QSR Nvivo 9). Pseudonyms were given to protect the anonymity of the participants.

Findings

Men ranged in age between 17 years old and 75 years old (median: 37). The majority of men had children (68%) but less than half were currently married (43%). Only 42% of men reported having full-time employment. We first describe men's reported masculinity-related barriers HIV testing, care, and treatment, then assess how OMC helped to overcome these barriers.

Masculinity-related barriers to testing, care and treatment

Weakness, stigma, and humiliation—Most men described that fear of being perceived as weak was a major barrier to men's engagement with health care providers who offer HIV testing, care, or treatment.

> It is just pride and fear. They just feel embarrassed to be known as sick… people will classify them as weak people in the community. (Kgotso, Limpopo, Age 56).

The stigma of being perceived as weak conflicts with norms of masculinity that emphasise toughness/strength and thus men feared being known as living with HIV. A few men said that some men would prefer to commit suicide than share their results with others.

> There is a friend of mine who went for blood test and he found out that he was positive. Instead of accepting the results and his status, he hanged himself. I only found out the reason for the suicide after his death because he didn't tell anyone about the results. (Sibusiso, Eastern Cape, Age 25).

While this fear of others finding out their HIV status is not unique to men, the ways that masculinity links to notions of weakness for men may be a driving force for these fears.

Some men reported that being perceived as weak was exacerbated by concern that health care workers would gossip about their HIV status to other members of the community. This

worry inhibited some men's from being tested for HIV or receiving care/treatment because men said that they do not trust the nurses and other clinic staff to keep their visit confidential.

> Men are afraid that their status will be known by the nurses who will then tell other people. A man would rather hide his status than suffer the humiliation of having his status known by other people in the community. (Sibusiso, Eastern Cape, Age 25)

Threats to masculinity—Some men said that an HIV diagnosis would lessen a man's masculinity because it would require men to adopt new social practices that were considered feminised. For example, most men described that clinics where men could receive HIV testing, care and treatment were female social spaces and settings in which men felt uncomfortable.

> It is difficult because the other problem is that virtually all the nurses and counsellors at the clinic are women and thus men are not comfortable discussing their issues with women. We men prefer talking to other men if we have health problems and thus it is hard to go to the clinic for help. (Sipho, Eastern Cape, Age 52)

These fears and concerns here are not imagined; as institutional policies often create clinical environments that cater more towards women and men described feeling like they do not belong. A few men highlighted that being HIV-positive would prevent men from participating in male social spaces and this would be emasculating.

> When you suffer from some of these illnesses [HIV], you find that you do not spend enough time with other men as you have to constantly go to the hospital. Your absence from other men may make you feel less masculine. You give up on men activities because of the illness and you feel left behind, weak and incapable of fully being a man because you cannot partake in any men activities…Losing their jobs and associated status makes them feel less masculine and also feel like failures. For such people, it is degrading to depend on other people for survival and thus it makes one feel less of a man. (Mandla, Eastern Cape, Age 62)

This comment connects HIV care and treatment to diminished masculinity, but also offers a cautionary tale about what can happen if a man decides to receive HIV care and treatment.

Impacts of One Man Can: Transforming Silence, Fear, and Masculine Norms

A key goal of the OMC programme is to bring men together to talk openly about issues that affect them individually and at the community level. OMC workshops aimed to encourage men to develop a critical consciousness about HIV by creating a safe space in which men could talk with one another and listen to others experiences. Several men described that this open discussion and challenging of masculine norms helped them more than other interventions they had received.

> I have attended some workshops before about HIV management as well as testing. But OMC's approach was different from these other workshops. The approach was mostly about men sharing, than one person lecturing us. I have realised that, that

> approach is more informative and it has added more information about HIV risks and testing. (Lesebo, Limpopo, Age 36).

Additionally, given that Limpopo and Eastern Cape are high HIV prevalence areas, several participants in OMC were living with HIV and were able to disclose their experiences to others. The emphasis on men listening to and challenging one another broke down barriers to HIV testing, care and treatment for some men. In fact, about a quarter of our sample reported that they tested for HIV as a result of their OMC participation. As we will describe in this section, OMC helped change perceptions and some men change their behaviours by specifically (1) creating safe social spaces where HIV-positive and HIV-negative men could interact to break down HIV stigma and stereotypes, (2) prompting men who participated in OMC to encourage other men to test and act as resources for men who were newly diagnosed, and (3) enabling men to speak with their female partners about HIV risk which encouraged HIV testing.

Most men described an increased openness to discuss HIV after participating in the programme. The dialogue promoted by OMC helped men living with HIV feel more comfortable to share their stories and challenge the idea that HIV was emasculating and made men weak.

> OMC taught me that a real man is one that accepts the situation that he is in and moves on with life. I was struggling with accepting that I am living with HIV but after OMC and meeting with other men, it became easier to accept and move on… discussing HIV for me is easier because I talk about my story. OMC helped me to be able to open up and not keep things within me. I am someone that does not talk much but after OMC I am more open. (Bongani, Eastern Cape, Age 34)

Alhough not all men described changing their perceptions, many men who were not living with HIV described changing their views of HIV positive individuals because they were able to talk openly with men who were living with HIV. For example, one man from the Eastern Cape said:

> For me, OMC helped me break down the stereotyping and stigma of HIV. Because of OMC, HIV positive people came out in the open and talked about it publicly and it really dawned on me that there is no difference between HIV and other conditions such as sugar diabetes…With friends, you find that most men are very reluctant or scared to talk about AIDS and thus the conversations are always uncomfortable in a way. Despite that, we talk and I advise my friends… From OMC, I learnt to interfere in conversations where I feel people are misinforming each other or when people make fun of and ridicule HIV positive people. (Bheki, Eastern Cape, Age 41)

For Bheki and many other men who participated, OMC encouraged group members to ‘open up’ which changed their perceptions of HIV and the stereotypes associated with people living with HIV. By interjecting when peers stigmatised people living with HIV, men were able to shift the discourse in among men towards more respect for persons living with HIV. Another man described a simple change he personally had made: ‘I stopped mocking people about their status.’ (Nhlanhla, Eastern Cape, Age 19).

Men who changed their behaviours reported that this increased dialogue and the breaking down of masculinity-related and stigma-related barriers resulted in increased HIV testing, care, and treatment.

> What I discovered is that…if I test positive, I should accept my status and the fact that I should make changes in my lifestyle. I cannot turn back the hands of time and become negative. With OMC, I learnt that acceptance is the main hurdle one has to go through. When I became part of OMC, I took the decision to test. (Jabulile, Eastern Cape, Age 44)

Men who were living with HIV also indicated that OMC helped break down stigma associated with HIV status which helped them feel better about adhering to their care and treatment regimens.

> Even in the community people see the change in me and I am called by people who need advice for their sick ones to provide support and counselling. This is particularly so with people who are HIV positive and are either in denial or are afraid of knowing their status…Through OMC, I learnt about how to live positively, how to treat HIV as a normal condition and how to accept and live with the virus. (Sizwe, Eastern Cape, Age 33)

After participating in OMC, many men described themselves as being inspired to support other men who were not participants by encouraging them to test for HIV or to receive care and treatment. It was commonly reported that men took on a peer health education role after participating in OMC. Some men even said that after participating in OMC they became a resource for other men in their community as other men – including those living with HIV – sought them out to ask questions or receive support to go for HIV testing or HIV care.

One of the goals of OMC is to democratise relationship between men and women by shifting men in the direction of more gender equality through shared decision-making and shared power; men described questioning their previous behaviours that disrespected their partners' autonomy and described modifying their behaviour, discussing HIV risk with their wives/girlfriends, for example, and going to couples HIV testing after participating in OMC.

> With testing, I always was afraid to go testing. I used to hide behind my wife's pregnancy…During her pregnancy, she tested negative, I then said to her that means we are safe. But that was stupid of me. I can only say that it was stupid of me now after joining OMC and attending men's dialogues. I know my status together with my wife. After every 6 months, we go testing… the way the [OMC] material were facilitated, one is bound to think deep and honestly. (Baholo, Limpopo, Age 42)

Some men began to acknowledge their potential risk for HIV after attending OMC workshops and considered the potential harms they were causing their wives. This too prompted them to be more willing to be tested for HIV.

> The workshops had brought me to a pause and searching inside myself, questioning the way I do things…I personally have cheated on my wife, with my exposure to different women on projects sites, I have so much used my economic power to misuse women for my sexual gain…It was not easy to tell my wife these

> experiences but I had to, so that we can start our page clean. Of which we did, we together took a decision that we will start working together even on my projects. My wife and I are tested, we know our status. Her status is my status. (Lebohang, Limpopo, Age 42)

Increased openness within relationships also helped men who were living with HIV disclose their HIV status to their partners. For example, one of the men living with HIV from the Eastern Cape said, 'My participation with OMC taught me to be open and honest about serious issues such as my status to my partner' (Bongani, Age 34). This increased openness allowed couples to support each other in taking measures (e.g. condom use, testing, and care/treatment) to ensure the health of both members of the partnership.

Discussion

Our findings on masculinity-related barriers to the HIV treatment cascade in this particular South African context are consistent with findings from other research in sub-Saharan Africa (Bila and Egrot 2009; Nyamhanga *et al.* 2013; Siu *et al.* 2013; Siu *et al.* 2012; 2014a; Siu *et al.* 2014b). Our results are novel, however, because they show how a gender-transformative intervention influences several key mechanisms that may improve men's HIV testing and treatment outcomes. These findings highlight how HIV represents a challenge to men's masculine status, creating fears of loss of confidentiality, being perceived as weak, and the inability to socialise with other men in all-male environments. Men described these masculinity-related factors acted as barriers to being tested for HIV or engaging in treatment and care. Men in our sample who participated in OMC were encouraged to speak more freely about HIV and this appeared to facilitate greater willingness to be tested for HIV and receive HIV care and treatment for those who were living with HIV. There were three main mechanisms by which increased openness about HIV may have facilitated these changes: (1) through the creation of safe social spaces in which HIV-positive and HIV-negative men could interact to break down HIV stigma and stereotypes, (2) by prompting men who participated in OMC to encourage other men to test and act as resources for men who were newly diagnosed, and (3) by enabling men to speak with their partners about HIV risk which encouraged couples HIV testing. While these are preliminary qualitative findings, they suggest how a gender-transformative intervention can potentially improve men's engagement with the HIV treatment cascade.

Our findings support the previous findings by Mburu et al. (2014) and Wyrod (2011) that there are specific masculinity-related barriers to HIV testing, care, and treatment and that these barriers are exacerbated by HIV stigma. Stigma is problematic for men because competition for status is so central to men's lives (Connell 1995; Courtenay 2000). Men compete with one another for social status within masculine hierarchies and openly living with HIV – including seeking out HIV testing/care/treatment – likely portrays a man as lacking strength, linking him to stigmatised status and placing him lower within these hierarchies. Tsai and colleagues (2013) also connect HIV stigma to the food and livelihood security of people living with HIV. Given that norms of masculinity place strong emphasis on men to fulfil the 'provider' role for their family, HIV stigma represents a major impediment to achieving this valued masculine norm and the status associated with it. As

our findings show – and findings from other research in sub-Saharan Africa (Bila and Egrot 2009; Siu *et al.* 2012; 2014a; Skovdal *et al.* 2011) corroborate – men's hesitation around seeking HIV testing, care and treatment is linked to a fear of lower social status that would result from being perceived as weak.

It is critical to underscore that our findings also highlight the existence of institutional-level barriers (e.g. clinics being seen as female social spaces and care being organised as gendered) within local health care systems (Dovel *et al.* 2015). More broadly, the gendered organisation of health care systems within South Africa and elsewhere stem from gender norms that emphasise women's vulnerability and men's self-sufficiency (Fleming and Dworkin 2016). To address gender disparities in HIV testing, care and treatment, future programmes will need to address both individual-level and institutional-level barriers.

Our data suggests that OMC – and possibly gender-transformative interventions more generally – offer a promising approach for tackling HIV-related stigma and addressing masculine-related barriers to HIV testing, treatment and care. Such interventions offer social spaces that allow men to project non-normative masculine characteristics like vulnerability and weakness and still retain their social status. Previous work by Campbell and colleagues in South Africa has highlighted the importance of these safe spaces and open dialogue for breaking down HIV stigma (Campbell, Nair, and Maimane 2007; Campbell and Deacon 2006; Campbell, Skovdal, and Gibbs 2011). As a result of the change experience by OMC participants, men reshaped their relationships with other men and their female partners by speaking openly and providing emotional support. A separate study in South Africa showed that men who discussed HIV with others were more likely to have ever tested for HIV and more likely to have had recent or repeated testing (Knight *et al.* 2014). Additionally, in a multi-country study of forty-eight communities, reporting frequent conversations about HIV was significantly positively associated with prior HIV testing at each study site (Hendriksen *et al.* 2009). This evidence, along with the evidence from the foundational work by Campbell and colleagues, shows that safe social spaces and critical conversations among men that de-stigmatise HIV status, can create an environment that supports behaviour changes among men.

Limitations

There are several limitations to our study. First, given that the men in this sample were recruited by partner organisations of the Sonke Gender Justice Network that were invested in gender equality and health, the men involved may not be representative of the broader community in terms of their attitudes, beliefs and practices related to gender equality and women's rights. Additionally, our sample has a broad age range which may obscure important differences between age groups. Second, interviewers did not ask men about their HIV status directly and there were a relatively small sample of men who openly reported that they were living with HIV. We based our findings related to seeking HIV care and treatment on this small sub-sample as well as comments from other participants about other men seeking HIV care and treatment in their communities. Third, using only one cross-sectional interview with the potential for social desirability bias limited our ability to assess changes in attitudes, beliefs, and behaviours among the men who participated in our study.

Finally, men were interviewed after participating in the OMC programme, and thus their retrospective observations, are subject to recall bias and/or they may have been biased in the positive direction given programme experiences. Without different study design, we are unable to attribute our findings specifically to the intervention. Despite this, our study contributes to the emerging body of literature on masculinity-related barriers to the HIV treatment cascade and is the first to explore how a gender-transformative health intervention may be used to improve HIV treatment and care outcomes.

Conclusions

A recent article by Dovel *et al.* (2015 concluded: 'In light of the abundant evidence showing that men are more likely to die of AIDS….attention must be given to men' (p. 1124). OMC, and related gender-transformative programmes and interventions, offer promising new approaches to address this disparity and ultimately reduce HIV transmission and mortality. Addressing the root causes of men's barriers to testing, care, and treatment, including those that are related to gender norms and the associated gendered health systems, will benefit the health of men and the health of their partners and children.

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