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A scoping review on the role of masculine norms in men's engagement in the HIV care continuum in sub-Saharan Africa

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Abstract

Men living with HIV/AIDS in sub-Saharan Africa are less likely than women to be engaged at each stage of the HIV care continuum. We conducted a scoping review in May of 2016 to identify how masculine norms influence men's HIV care engagement in sub-Saharan Africa. Our review yielded a total of 17 qualitative studies from 8 countries. Six major themes emerged that demonstrated how norms of masculinity create both barriers and facilitators to care engagement. Barriers included the exacerbating effects of masculinity on HIV stigma, the notion that HIV threatened men's physical strength, ability to provide, self-reliance, and risk behavior, and the belief that clinics are spaces for women. However, some men transformed their masculine identity and were motivated to engage in care if they recognized that antiretroviral therapy could restore their masculinity by rebuilding their strength. These findings demonstrate masculinity plays an important role in men's decision to pursue and remain in HIV care across sub-Saharan Africa. We discuss implications for tailoring HIV messaging and counseling to better engage men and an agenda for future research in this area.

Keywords

HIV/AIDS; HIV treatment and care engagement; gender norms; masculinity; men; sub-Saharan Africa

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Introduction

Referred to as a “blind spot” in the response to HIV, UNAIDS recently called attention to the gender gap in the HIV care continuum disadvantaging men (UNAIDS, 2017). Men and boys living with HIV are 20% less likely than women and girls living with HIV to know their HIV status, and 27% less likely to be accessing treatment in sub-Saharan Africa (UNAIDS, 2017). Epidemiological studies throughout the region demonstrate men on treatment are also more likely to drop out of care (Arnesen, Moll, & Sheno, 2017), and have poorer antiretroviral treatment (ART) adherence (Heestermans, Browne, Aitken, Vervoort, & Klipstein-Grobusch, 2016). The consequences of men’s relative absence in the care continuum are severe: a meta-analysis reported a 41% increased hazard of all-cause mortality among men on ART compared to women on ART in sub-Saharan Africa (Beckham et al., 2016).

Gender norms play an important role in men’s health behavior and service utilization (Connell, 1995; Connell & Messerschmidt, 2005; Courtenay, 2000a, 2000b, 2002). Defined as “those qualities of femaleness and maleness that develop as a result of socialization rather than biological predisposition” (Boles & Hoeveler, 2004), gender norms sanctioning male dominance and sexual risk have been studied extensively in terms of shaping HIV/AIDS risks in sub-Saharan Africa (Dunkle & Decker, 2013; Fleming, DiClemente, & Barrington, 2016; Robert, Rachel, & Graham, 2012; Stern & Buikema, 2013). Masculine norms may also reduce men’s willingness to engage in HIV testing and care, if these behaviors are perceived as damaging to men’s masculine identity or roles (Fleming, Colvin, Peacock, & Dworkin, 2016).

We conducted a scoping review with the goal of summarizing the existing evidence on the role of masculine norms in men’s care engagement to inform HIV programming and identify gaps for future research. A scoping review includes the “mapping” of evidence originating from a broad range of methodologies to convey the breadth, depth, and gaps of a field through a team-based iterative review and analytic reinterpretation of the literature (Levac, Colquhoun, & O’Brien, 2010). This review will broaden our understanding of the effect of masculine norms on engagement at different points in the treatment cascade, which may differ or change as men move through the stages of care.

Methods

Database and search strategy

We searched Pubmed, PsychInfo, and Web of Science databases in May 2016 using a mix of controlled vocabulary and free text terms related to masculinity and HIV care engagement (see Table A1 for search terms). We followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines where applicable (Moher, Liberati, Tetzlaff, & Altman, 2009).

Study Selection

Studies were eligible for inclusion in this review if they reported on empirical quantitative and/or qualitative studies examining the influence of masculine gender norms on men’s

engagement in HIV/AIDS care outcomes, including linkage to HIV care and treatment initiation, ART adherence, and HIV clinic attendance (appointment adherence or retention in care for men already linked to care). Our search also included studies on HIV testing; findings specific to HIV testing were excluded from this paper and reported separately due to space limitations (Sileo et al., 2018). We conducted the search in May 2016 and included studies if they were in English, empirical and peer-reviewed, conducted in sub-Saharan Africa, and did not include self-identified men who have sex with men. In studies that included both men and women, or men and health care providers, we include only data that were collected from men.

Studies identified during searches were merged using Endnote (version X7), and duplicate records were removed. The first-author (KMS) reviewed titles and abstracts to determine eligibility based on the inclusion criteria and retrieved the full-text documents. The full text was reviewed if the title and abstract did not provide enough information to determine eligibility. Three authors (KMS, PJF, RFM) then reviewed full-text articles for inclusion against the review's inclusion criteria. Consensus was reached through discussion by the authors if eligibility was in question or classifications were inconsistent.

Data abstraction

We created and used a form to systematize the abstraction of study information and findings. The following key data were extracted from studies: study design and data collection methods, population and setting, outcomes, main study findings on masculinity and HIV care engagement outcomes, conclusions, and limitations. The first author (KMS) and two trained graduate-level research assistants conducted initial data abstraction independently, which was reviewed by a second team member (PJF). Any discrepancies were resolved with input from co-authors when necessary.

Data analysis approach

Though both quantitative and qualitative studies were eligible for inclusion, only qualitative and mixed-methods studies were identified, of which, only qualitative data addressed our review's specific aim. Therefore, we conducted a qualitative review and analysis of studies through a thematic analysis approach (Saldaña, 2015). A coding scheme was developed before abstraction to classify the study findings; labels were applied to each finding to classify the engagement outcome assessed (e.g., clinic attendance), whether masculinity was discussed as a barrier or facilitator to engagement, and the notion(s) of masculinity/gender roles (e.g., strength, financial provider) described. The coding scheme developed a priori was modified to include themes that emerged specific to masculine norms that were not captured in our original scheme. Qualitative findings were coded line by line. Through an iterative process of review of the coded data, we identified major themes that were reviewed and agreed upon by all authors.

Results

Of the 642 unique records identified in the search, 72 were selected for full-text review after review of title and abstract. A final total of 17 studies met our inclusion criteria (see Figure

1). Studies spanned 8 sub-Saharan countries and most were with men living with HIV (n = 12). Twelve studies focused on clinic attendance and general care engagement, and ten on ART initiation and adherence. Table 1 summarizes the characteristics of each study.

The role of gender norms and masculinity in engagement in the HIV care continuum

Figure 2 presents the findings by stage of the HIV care continuum and Table 2 includes a summary of the major findings presented by study.

Intersection of HIV stigma and masculinity—In nine studies, the stigma associated with HIV led men to fear negative consequences of being seen at the clinic on their masculine reputations within both the community and their families (Bila & Egrot, 2009; Mburu et al., 2014; Nyamhanga, Muhondwa, & Shayo, 2013; Parrott et al., 2011; Russell et al., 2016; Simpson, 2010; Skovdal et al., 2011; Van Heerden, Msweli, & Van Rooyen, 2015; Zisette, Watt, Prose, Mntambo, & Moshabela, 2016). Similarly, HIV stigma emerged as a barrier to ART initiation and adherence in three studies in Uganda and one in South Africa – particularly related to the fear or experience of rejection from others, and of discrimination at work (Lynch, Brouard, & Visser, 2010; Russell et al., 2016; Siu, Wight, & Seeley, 2012, 2013). In Uganda, men feared that visible-side effects of ART, or being seen taking their medication, would result in community gossip, threatening their masculine notions of respect and dignity (Russell et al., 2016). Ugandan miners abandoned their HIV treatment when they felt they could no longer conceal their ART from coworkers (Siu et al., 2012, 2013).

Strength and role as provider—The belief that men should be physically and mentally strong and provide for their family emerged as a facilitator to ART initiation and adherence in eight studies (Mburu et al., 2014; Parrott et al., 2011; Rakgoasi & Odimegwu, 2013; Russell et al., 2016; Simpson, 2010; Siu et al., 2012, 2013, 2014) and a barrier to men linking to care and initiating ART in four studies (Bhagwanjee et al., 2013; Mburu et al., 2014; Siu et al., 2012, 2013). ART's effect on men's physical appearance served as a facilitator to adherence by improving men's self-worth among men on ART in Uganda and was said to reduce the fear of stigma (Russell et al., 2016). ART's effect on men's ability to work and provide for their family through restored physical health was the main motivator for ART in Malawi, Zambia, and Uganda (Mburu et al., 2014; Parrott et al., 2011; Russell et al., 2016; Simpson, 2010; Siu et al., 2012, 2013, 2014). HIV treatment allowed men to return to their normal social and family roles before HIV and to work “just like before HIV diagnosis” (Siu et al., 2012).

In contrast, enduring physical symptoms of HIV and delaying treatment for as long as possible was viewed as a sign of strength and courage among some Ugandan miners (Siu, Seeley, & Wight, 2013). Men in both rural and urban areas of Botswana and Uganda similarly viewed seeking treatment as a sign of weakness (Mburu et al., 2014; Rakgoasi & Odimegwu, 2013; Siu et al., 2013), and men avoided care in South Africa because it made them feel vulnerable (Bhagwanjee et al., 2013).

Self-reliance and agency—In five studies, in Burkina Faso, Malawi, Tanzania, Uganda, and Zimbabwe, men were ashamed to be seen at the clinic seeking any kind of aid, feeling it comprised their status as a man (Bila & Egrot, 2009; Nyamhanga et al., 2013; Parrott et al., 2011; Siu et al., 2013; Skovdal et al., 2011). A socialized unwillingness to express emotions and ask for help resulted in men delaying ART initiation in South Africa and Tanzania (Lynch et al., 2010; Nyamhanga et al., 2013). Standing in a queue was particularly de-masculinizing to men in Burkina Faso and Zimbabwe (Bila & Egrot, 2009; Skovdal et al., 2011). In Zimbabwe, presenting to care meant having to admit a lack of knowledge about HIV to health care workers, putting men in the submissive position of the patient and “learner” (Skovdal et al., 2011). Seeking treatment was contradictory to the autonomy and respect men had come to expect in their community in Tanzania (Nyamhanga et al., 2013) and fear of being reprimanded by providers, and thus disrespected, was a deterrent to care in Uganda (Siu et al., 2013).

However, in cases where men found new ways to showcase respect and agency within the context of HIV care, these notions of masculinity were facilitators to clinic attendance (Lynch et al., 2010; Mburu et al., 2014; Wyrod, 2011). Examples include restoring one’s social status by assuming leadership positions in HIV community groups in Uganda (Wyrod, 2011), leading HIV support groups in Uganda (Mburu et al., 2014), and engaging in health education events in the community in South Africa (Lynch et al., 2010).

Transformed masculinity—Five studies reported that living with HIV shifted men’s masculine identities over time to emphasize their health, family and social responsibility as a father, husband, and provider, as well as more egalitarian relationships and open communication about health with their spouse and others (Bhagwanjee et al., 2013; Lynch et al., 2010; Siu, Wight, & Seeley, 2014; Skovdal et al., 2011; Zisette et al., 2016). The catalyst to this change was the positive and restorative effect HIV treatment had on men’s sense of control over their health and ability to fulfill their roles as father and husband (Lynch et al., 2010; Siu et al., 2014; Zisette et al., 2016). In addition, HIV diagnosis, counseling, and support groups allowed men time for self-reflection and reassessment of their priorities, resulting in the rejection of forms of masculinity harmful to their health (Bhagwanjee et al., 2013; Lynch et al., 2010; Skovdal et al., 2011). Men who could reframe their masculine values in this way were more engaged in HIV care, more aware of their physical health, and reduced their engagement in risky sex and substance use – markers of masculinity.

The belief that healthcare facilities are for women—The belief that the clinic is a feminine space emerged as a barrier to men attending clinic appointments in four studies (Bila & Egrot, 2009; Skovdal et al., 2011; Van Heerden et al., 2015; Zisette et al., 2016). The gender imbalance in clinics was said to make men feel out of place, and to challenge social norms around men and women mixing in public places in Burkina Faso (Bila & Egrot, 2009). Women’s greater opportunity for interaction with health facilities through pregnancy contributes to the perception that clinics were normative spaces for women in South Africa (Zisette et al., 2016).

Norms promoting risk-taking—In three studies, some men reported avoiding or delaying the initiation of ART or clinic attendance for fear of having to change male sanctioned risk behaviors, including sexual risk (multiple partners and condom use) in Zimbabwe (Skovdal et al., 2011) and eastern Uganda (Mburu et al., 2014), and alcohol use in South Africa (Fitzgerald, Collumbien, & Hosegood, 2010). In Uganda, men felt being seen participating in HIV support groups would hurt their chances of finding new sexual partners (Mburu et al., 2014). Men in care in South Africa reported delaying linking to care until after they were able to reduce or stop alcohol use on their own, knowing that ART program discourages alcohol use (Fitzgerald et al., 2010).

Discussion

Our findings demonstrate masculine norms serve as both barriers and facilitators to ART initiation, treatment continuation and adherence, and clinic attendance. Key themes included the intersection of HIV stigma and masculine norms, masculine norms related to strength and men's role as a provider as a facilitator to HIV care, as well as men's self-reliance and agency as a barrier to HIV care. These findings make an important contribution to our understanding of the gender disparities observed in HIV care engagement throughout the region.

Our review demonstrates how HIV care can be perceived as damaging to men's roles and identities and result in men's avoidance of HIV care. For some men, treatment seeking was viewed as a sign of weakness – undermining men's masculine notions of strength and self-reliance, leading to delayed linkage to care. These findings are in line with our review on masculine norms and HIV testing, which also had a strong emphasis on men's fear of change in sexual behavior (Sileo et al., 2018). Once in care, men felt being in a submissive role relative to health workers, in what was viewed as a feminine setting, compromised men's agency and reputation. Overall, men expressed concerns about privacy, being disrespected by health care providers, missing work, and being embarrassed from being seen seeking aid, reinforcing the need for health system-level interventions to better accommodate men and address institutionalized gender inequities in HIV care (Dovel, Yeatman, Watkins, & Poulin, 2015; Fleming & Dworkin, 2016), such as those presented in UNAIDS “Blind Spot” report (2017).

The negative effects of HIV on masculinity, and masculinity on treatment seeking, were compounded by the stigmatized nature of HIV illness itself. HIV stigma was a similarly prominent finding in our earlier review on masculinity and HIV testing (Sileo et al., 2018) – together adding to studies that assess the link between masculinity and HIV stigma (Chikovore et al., 2017; Mburu et al., 2014; Wyrod, 2011). Wyrod (2011) argues that HIV stigma is a social process tied to power relations and the reproduction of social inequalities (Castro & Farmer, 2005; Holzemer et al., 2007; Parker & Aggleton, 2003). Since the norms of hegemonic masculinity idealize men who deny weakness, seeking HIV services represents a “cross over socially constructed gender boundaries” (Courtenay, 2000a; Wyrod, 2011). Therefore, HIV stigma itself is a way to reinforce gender boundaries and prevent men from countering hegemonic masculinity through health-seeking behavior (Wyrod, 2011). Our findings demonstrate the need for more research to dissect the relationship between

masculine norms and HIV stigma, as well as research using an intersectionality framework to understand how membership in other ethnically or economically marginalized groups affect men's engagement in HIV care.

Despite the masculinity-related barriers identified, we found several of the same masculine norms can serve as facilitators to care, if care engagement is perceived to bolster men's fulfillment of masculine expectations. Further, there was evidence of some men transforming their masculine identity after diagnosis to be more in line with HIV care. Referred to by Siu et al. (2014) as "resuscitated" masculinity, this transformation was in part attributed to men experiencing the benefits of ART in the later stage of the care continuum (i.e., ART adherence) on their masculine roles (e.g., strength, ability to provider). The potential for men to adopt new masculine identities points to "gender transformative" interventions as a strategy to increase men's care engagement (Dworkin, Fleming, & Colvin, 2015). Though a gender transformative approach has not yet been rigorously evaluated in the context of HIV care engagement, a recent study found men participating in One Man Can (OMC), a rights-based gender equality and health program intervention in South Africa (Colvin, 2011; Pulerwitz, Michaelis, Verma, & Weiss, 2010), had increased capability to overcome masculinity-related barriers to HIV testing, care, and treatment (Fleming et al., 2016).

There are limitations to consider in this scoping review. The definitions of masculine norms varied across studies included, which may have limited our ability to identify articles and fully synthesize the findings. Although the review was open to quantitative studies, only qualitative studies with small sample sizes were identified that met our inclusion criterion, limiting the generalizability of the results. The data collection dates for studies in this review had a wide range (2002–2014), during which the availability and efficacy of ART and community HIV stigma have drastically changed. Conclusions from this review take the date of data collection into account and do not presume that data collected in the early 2000s is necessarily valid today. More work is needed to assess the influence of masculine norms in the advent of universal ART access and to identify other context and population-specific factors that affect the relationship between masculine norms and care engagement.

Conclusions

This scoping review demonstrates the influence of masculine norms in linkage to HIV care, HIV clinic attendance, and ART initiation and adherence for men living with HIV in sub-Saharan Africa – highlighting potential barriers and facilitators explaining men's relative absence in the HIV treatment cascade. To reduce the consequential elevated mortality observed among men on ART in the region and to achieve the UNAIDS goal of 90-90-90 (UNAIDS, 2014, 2017), masculine norms must be considered in the delivery of HIV services for men.

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Appendix.: Additional files: search strategy

Table A1.

Search terms – PUBMED search

Masculinity terms	(masculin* OR “male gender” OR machismo OR “mens gender norms” OR “manliness” OR manly OR “male norms”) AND
HIV/AIDS terms	(HIV OR AIDS OR “HIV/AIDS” OR “human immunodeficiency virus” OR “acquired immune deficiency syndrome” OR PLWH OR PLWA OR PLWHA OR PLHIV) AND
Testing, care, and treatment terms	(“HIV test” OR “HIV testing” OR engage* OR ART OR adherence OR antiretroviral OR antiretroviral OR HAART OR cART OR “loss to follow up” OR “lost to follow up” OR “viral load” OR “HIV treatment” OR linkage OR “HIV care” OR cd4 OR cascade)

Notes: This table displays the search terms used for the PUBMED database search, which was adapted for searches in PsychINFO and Web of Science. Note that this review was specific to HIV care engagement, but was part of a larger review inclusive of HIV testing (reported elsewhere); therefore, search terms include those related to HIV care and treatment, in addition to HIV testing.

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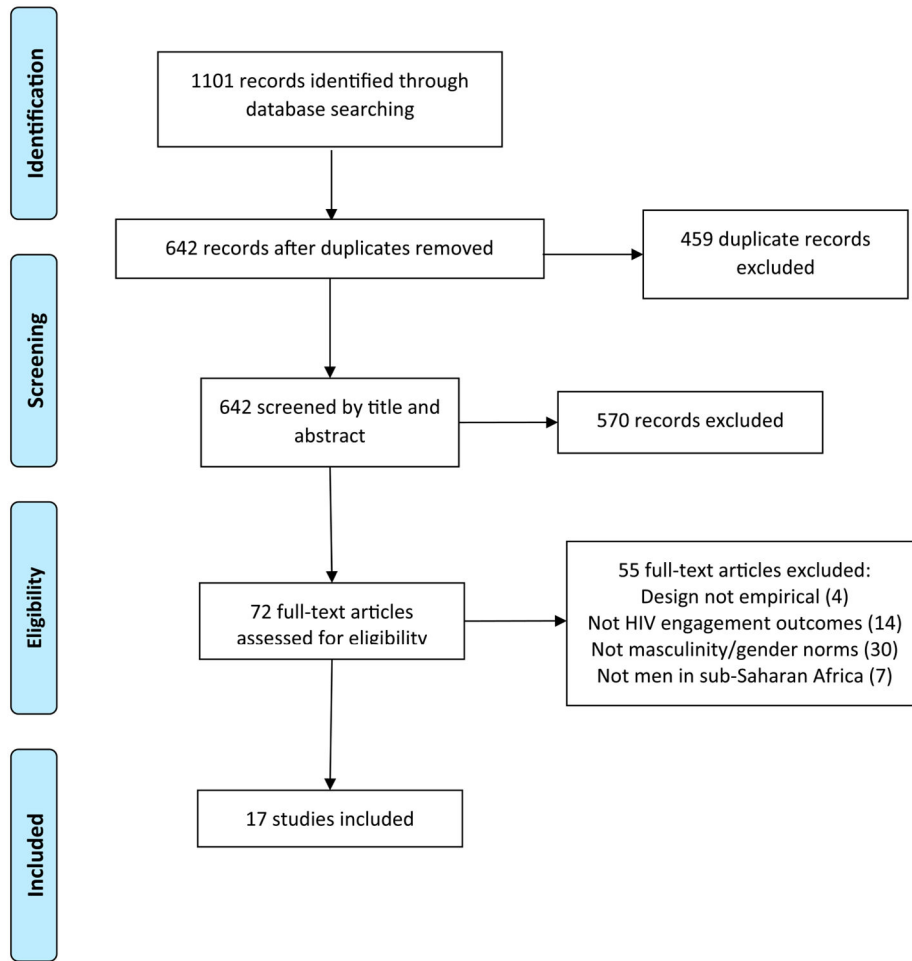


Figure 1.
Flow Diagram. Source: Moher et al. (2009).

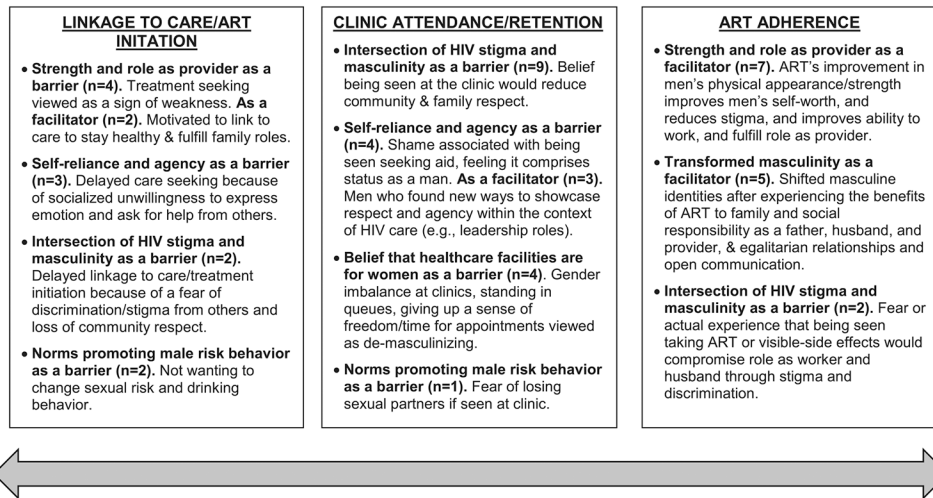


Figure 2. Summary of key findings on notions of masculinity that serve as barriers and facilitators to HIV care engagement, presented by stages of the HIV care continuum.

Note: The n presented with each finding indicates the total number of studies in the review for which the theme was identified.

Table 1.

Summary of studies included in the review.

First author, year published	Country	Year of data collection	Male study population and sample size
Bhagwanjee, 2013	South Africa	2010	6 men living with HIV on ART, part of a sero-concordant, heterosexual couple in a mining organization
Bila, 2009	Burkina Faso	2003–2008	31 men living with HIV, aged 30–55; 13 men living with HIV (focus groups) 18 men living with HIV (interviews)
Fitzgerald, 2010	South Africa	2005–2006	8 men living with HIV and initiating ART
Lynch, 2010	South Africa	Not reported	13 men (Black, self-identified as heterosexual, age 35–45)
Mburu, 2014	Uganda	2010	12 men living with HIV
Nyamhanga, 2013	Tanzania	2009	26 men living with HIV, registered with a nongovernmental organization for people with HIV
Parrott, 2011	Malawi	2008–2009	28 men (HIV status not reported)
Rakgoosi, 2013	Botswana	2008	~120–200 20 focus groups 6–10 each (HIV status not reported)
Russell, 2016	Uganda	2011–2012	18 men living with HIV on ART for at least 1 year
Simpson, 2010	Zambia	2002	30 men; a cohort of former male students and their classmates interviewed in 1983–1984 and again in 2002; data extracted for review included 2002 data (HIV status not reported)
Siu, 2012	Uganda	2009–2010	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)
Siu, 2013	Uganda	2009–2010	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)
Siu, 2014	Uganda	2009–2010	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)
Skovdal, 2011	Zimbabwe	Not reported	21 men living with HIV on ART
Wyrod, 2011	Uganda	2004, 2009	9 male union members living with HIV
Van Heerden, 2015	South Africa	2011–2012	10 men offered home-based HIV testing but declined, as well as other men not involved in the original program
Zissette, 2015	South Africa	Not reported for interviews, observation July 2014	21 men living with HIV

Note: Siu, 2012, 2013, and 2014 report data from the same sample/study.

Table 2.

Summary of study characteristics and key findings.

First author, year published	Country (location details)	Year of data collection	Study design/data collection method (s)	Male study population and sample size	Study objective (as reported by study authors)	Key findings on notions of masculinity as barriers and/or facilitators to HIV care
Bhagwanjee, 2013	South Africa	2010	Qualitative/couple, semi-structured interviews	6 men living with HIV on ART, part of a seroconcordant, heterosexual couple in a mining organization	To understand gendered positions in the relationships of seroconcordant couples, how couples negotiate gender identities in response to HIV lifestyle changes, and the impact of gender and relational dynamics on partner support for ARV adherence.	Barriers to ART initiation Strength. Men distance themselves from HIV to avoid feeling vulnerable. Facilitators to engagement generally Transformed masculinity. Men who are able to take on a "progressive masculinity" that focused on their family and more equity within their relationship are better able to adopt a healthy lifestyle.
Bila, 2009	Burkina Faso (Ouagadougou and Zorgho)	2003–2008	Qualitative/individual interviews, focus groups, observation	31 men living with HIV, aged 30–55; 13 men living with HIV (focus groups) 18 men living with HIV (interviews)	To understand why women have better access to HIV testing and care.	Barriers to clinic attendance HIV stigma. Not wanting to be seen at the clinic; HIV stigma associated with shame. Self-reliance & agency. Feelings of shame related to accepting assistance/help from others. Clinic is a place for women. Attending the clinic violates cultural norms about men and women mixing in public spaces.
Fitzgerald, 2010	South Africa (KwaZulu-Natal, rural)	2005–2006	Qualitative/individual in-depth interviews	8 men living with HIV and initiating ART	To provide insight into gendered dimensions to men's health and health care experiences and consider the way in which gender intersects with men's health experiences around ART.	Barrier to ART initiation Risk behavior. Not wanting to change sexual risk and drinking behavior leads to delay in treatment.
Lynch, 2010	South Africa (Tshwane, urban)	Not reported	Qualitative/focus groups	13 men (Black, self-identified as heterosexual, age 35–45)	To explore how men construct their masculinity, and how HIV impacts their subjectivity as men.	Barriers to ART initiation HIV stigma. Fear showing vulnerability when seeking support for HIV will result in rejection. Self-reliance & agency. Delayed care seeking because unwilling to ask for help, and inability to express emotions for fear of being perceived as vulnerable. Facilitator to adherence/clinic attendance Transformed masculinity. Change in aspects of masculinity harmful to health and increased communication/support seeking. Self-reliance & agency. New ways of displaying agency/control by being a leader in HIV education in the community.
Mburn, 2014	Uganda (Mbale [rural] and Jinja [urban and peri-urban])	2010	Qualitative/individual interviews, focus groups,	12 men living with HIV	To investigate the intersection of HIV stigma and masculinity, and its perceived impact on men's participation in and	Barrier to ART initiation Strength. Expectation to be physically and mentally strong; avoidance of care. Barrier to clinic attendance HIV stigma. Accessing services was linked to a

First author, year published	Country (location details)	Year of data collection	Study design/ data collection method (s)	Male study population and sample size	Study objective (as reported by study authors)	Key findings on notions of masculinity as barriers and/or facilitators to HIV care
Nyamhanga, 2013	Tanzania (Dar es Salaam, urban)	2009	Qualitative/ focus groups	26 men living with HIV registered with a nongovernmental organization for people with HIV	utilization of HIV services in Uganda.	sense of shame, secrecy, powerlessness and a loss of respect. Risk-taking. Fear of losing sexual partners if seen at clinic. Self-reliance & agency. Shameful to accept help from others. Facilitator to adherence/clinic attendance Strength & role as provider. Restored by ART, enabling ability to provide. Self-reliance & agency. Restored social status/ respect through AIDS activism and community leadership.
Parrott, 2011	Malawi (rural, Karonga District, northern region)	2008–2009	Qualitative/ individual semi-structured interviews	28 men (HIV status not reported)	To explore how masculinity norms limit men's access to ART in Dar es Salaam.	Barrier to ART initiation Self-reliance & agency. Unwilling to ask for help from others, avoid accessing care until very advanced stages. Barrier to clinic attendance HIV stigma. Being seen at the clinic would damage men's reputation in the community and household – loss of respect. Barrier to clinic attendance HIV stigma. Fear of being perceived as weak & loss of agency/respect in the household. Self-reliance & agency. Unwilling to ask for help from others. Facilitator to ART initiation & adherence Strength & role as provider. Motivated to stay healthy for family. Strength/provider role restored through ART.
Rakgoasi, 2013	Botswana (Gaborone and Francistown [urban] and Gantsi [rural])	2008	Qualitative/ focus groups	~120–200 20 focus groups 6–10 each (HIV status not reported)	To explore men's perceptions of themselves within the context of HIV, and how these perceptions contribute to men's behavior and the epidemic.	Barriers to ART initiation Strength. Belief that seeking treatment is a sign of weakness; belief that men's bodies are stronger than women's & can withstand HIV without treatment longer. Barrier to ART initiation & clinic attendance HIV stigma. Fear loss of dignity & respect in community. Facilitator to ART initiation & adherence Strength & role as provider. Strength/provider role restored through ART.
Russell, 2016	Uganda (Wakiso District)	2011–2012	Qualitative/ individual unstructured & semi-structured interviews	18 men living with HIV on ART for at least 1 year	To analyze changing processes of stigmatization among a group of people living with HIV on ART.	Barrier to clinic attendance HIV stigma. Differential treatment of men in clinics; men perceived as spreading the epidemic. Facilitator to ART initiation & adherence Strength & role as provider. Strength/provider role restored through ART.
Simpson, 2010	Zambia	2002	Qualitative/ individual interviews and observation	30 men; a cohort of former male students and their classmates interviewed in 1983–1984 and again in 2002; data extracted for review included 2002 data (HIV status not reported)	To describe the religious ideas of a cohort of former students of a Catholic mission boarding school, and outline their understanding of masculinity and responses to HIV testing and treatment.	

First author, year published	Country (location details)	Year of data collection	Study design/ data collection method (s)	Male study population and sample size	Study objective (as reported by study authors)	Key findings on notions of masculinity as barriers and/or facilitators to HIV care
Siu, 2012	Uganda (rural gold mining villages, eastern region)	2009–2010	Qualitative/individual in-depth interviews and observation	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)	To explore why HIV treatment enhances masculinity for some men, and undermines masculine work identity for others, leading to treatment discontinuation.	Barriers to ART adherence HIV stigma. Visible side effects or being seen taking ARVs at work may lead to discrimination, loss of respect, and loss of work opportunities. Strength & role as provider. Reduced strength and ability to work, even after ART & cost of treatment depleting family resources. Facilitator to ART initiation & adherence Strength & role as provider. Strength/provider role restored through ART.
Siu, 2013	Uganda (rural gold mining villages, eastern region)	2009–2010	Qualitative/individual in-depth interviews and observation	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)	To examine men's construction of masculinity and its influence on treatment seeking for HIV.	Barriers to ART initiation & adherence HIV stigma. Disclosure at work may lead to lost respect and work opportunities. Strength. Delaying treatment initiation viewed as a sign of physical and mental strength. Self-reliance & agency. Subordination to health workers compromised respect. Facilitator to ART initiation & adherence Strength & role as provider. Restored through ART and engagement in livelihood programs.
Siu, 2014	Uganda (rural gold mining villages, eastern region)	2009–2010	Qualitative/individual in-depth interviews and observation	26 men: 17 living with HIV (9 on ART, 8 dropped out/never initiated) 9 unknown HIV status (6 suspected HIV, 3 with other health concerns)	To analyze how the experience of HIV/AIDS and/or ART modifies masculine identity and men's gendered roles within the household and society.	Facilitator to ART initiation & adherence Strength & role as provider. Strength/provider role restored through ART. Transformed masculinity. New value on the importance of health and family.
Skovdal, 2011	Zimbabwe (Manicaland Province, eastern region, rural)	Not reported	Qualitative/in-depth individual/group interviews, focus groups	21 men living with HIV on ART	To examine how local constructions of masculinity impact on men's use of HIV services.	Barrier to clinic attendance HIV stigma. Fear loss of dignity. Self-reliance & agency. Shameful to seek aid – puts men in a submissive role. Belief clinic is a place for women. In conflict with men's freedom and work schedules. Barrier to ART initiation Risk behavior. Do not want to change sexual behavior. Facilitator to ART adherence Transformed masculinity. New value on the importance of health and family.
Wyrod, 2011	Uganda (Bwaise [Islam community] in Kampala, urban)	2004, 2009	Qualitative/individual in-depth interviews, direct observation.	9 male union members living with HIV	To make clear why we need to attend to the intersection of masculinity and AIDS stigma and to provide a more intimate description of how men in this context experience AIDS stigma.	Facilitator to clinic attendance Self-reliance & agency. Damaged respect and agency from HIV restored by taking on new leadership positions in the clinic.

First author, year published	Country (location details)	Year of data collection	Study design/ data collection method (s)	Male study population and sample size	Study objective (as reported by study authors)	Key findings on notions of masculinity as barriers and/or facilitators to HIV care
Van Heerden, 2015	South Africa (Vulindlela sub-district of the UMgungundlovu district, KwaZulu-Natal)	2011–2012	Qualitative/ focus groups	10 men offered home-based HIV testing but declined, as well as other men not involved in the original program	To obtain a deeper understanding from both men and women regarding the reasons why men test less frequently than women through HBCT.	Barrier to clinic attendance HIV stigma. Fear being seen at the clinic will result in shame. Belief clinic is a place for women.
Zissette, 2015	South Africa (Umzinto, KwaZulu-Natal, peri-urban)	NR for interviews, observation July 2014	Qualitative/ individual in-depth interviews, observation	21 men living with HIV	To provide new insight on which components of masculinity interplay with healthcare access in South Africa.	Barrier to clinic attendance HIV stigma. Fear being seen at the clinic will result in shame. Belief clinic is a place for women. Belief clinic attendance was required for women for pregnancy, but no reasons for male attendance. Facilitator to clinic attendance/adherence Transformed masculinity. Coming to embrace the clinic and HIV treatment as important – advocating in the community for testing and treatment.

Note: Siu, 2012, 2013, and 2014 report data from the same sample/study.