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Research article

How a masculine work ethic and economic circumstances affect uptake of HIV treatment: experiences of men from an artisanal gold mining community in rural eastern Uganda

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Abstract

Background: Current data from Uganda indicate that, compared to women, men are under-represented in HIV treatment, seek treatment later and have a higher mortality while on antiretroviral therapy (ART). By focusing on a masculine work ethic as one of the most predominant expressions of masculinity, this study explores why for some men HIV treatment enhances their masculinity while for others it undermines masculine work identity, leading them to discontinue the treatment.

Methods: Participant observation and 26 in-depth interviews with men were conducted in a gold mining village in Eastern Uganda between August 2009 and August 2010. Interviewees included men who were taking HIV treatment, who had discontinued treatment, who suspected HIV infection but had not sought testing, or who had other symptoms unrelated to HIV infection.

Results: Many participants reported spending large proportions of their income, alleviating symptoms prior to confirming their HIV infection. This seriously undermined their sense of masculinity gained from providing for their families. Disclosing HIV diagnosis and treatment to employers and work colleagues could reduce job offers and/or collaborative work, as colleagues feared working with ''ill'' people. Drug side-effects affected work, leading some men to discontinue the treatment. Despite being on ART, some men believed their health remained fragile, leading them to opt out of hard work, contradicting their reputation as hard workers. However, some men on treatment talked about ''resurrecting'' due to ART and linked their current abilities to work again to good adherence. For some men, it was work colleagues who suggested testing and treatment-seeking following symptoms.

Conclusions: The central role of a work ethic in expressing masculinity can both encourage and discourage men's treatment-seeking for AIDS. HIV testing and treatment may be sought in order to improve health and get back to work, thereby in the process regaining one's masculine reputation as a hard worker and provider for one's family. However, disclosure can affect opportunities for work and drug side-effects disrupt one's ability to labour, undermining the sense of masculinity gained from work. HIV support organizations need to recognize how economic and gender concerns impact on treatment decisions and help men deal with work-related fears.

Keywords: masculinity; work ethic; HIV treatment.

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Background

HIV prevalence remains highly gendered in sub-Saharan Africa (SSA), with women constituting approximately 60% of all people living with HIV-related disease [1]. Women's greater vulnerability to HIV infection arises mostly from the gendered order of their societies. Economic disadvantage and poverty; cultural practices such as widow inheritance; sexual double standards that favour men's sexual infidelity; and a power imbalance in decision-making processes in the domestic and societal spheres are major drivers of HIV risk among women in SSA [2,3]. In this context, there are legitimate policy concerns about the impacts of HIV-related disease on women. However, many recent studies in Uganda as well as other parts of SSA have consistently shown that although women remain more vulnerable to HIV infection, once infected, men tend to be disadvantaged in terms of access to treatment and care [4–11].

In Uganda, men are not only under-represented in HIV treatment programmes but also often initiate treatment later, are easily lost to follow-up and have poorer health outcomes and higher mortality while on antiretroviral therapy (ART) than women [12–16]. Some studies suggest that the social values and roles associated with femininity often create favourable conditions for women to engage with HIV services, while the social behaviour, values and roles associated with masculinity tend to negatively affect men's use of HIV services [17–19]. However, few studies go beyond descriptions of these differentials to provide detailed accounts of the particular processes through which dominant masculine roles may constrain or facilitate men's access to

and use of HIV treatment [20]. This paper attempts to address this gap by focusing on how masculinity expressed in terms of work ethic influences men's response to the need to test and seek HIV treatment among the Iteso men of Mam-Kiror village, Busia District, Eastern Uganda. Mam-Kiror is a pseudonym used to minimize inadvertently disclosing the participants' identities. We adopt the participants' understanding and refer to both ART and Septrin drugs (cotrimoxazole) as HIV treatment.

Gender roles and masculinity in sub-Saharan Africa

Gender denotes the social construction of characteristics, norms, roles and behaviour generally considered appropriate for males or females [21]. Gender is, however, not only a system of classification by which biological males and females are sorted and socialized into different sex roles. It also usually expresses the universal inequality between men and women, with men as a ''group'' tending to enjoy more privileges than women as a ''group'' [22]. Unequal power relations and cultural norms shape the social roles that men and women are expected to fulfil, what constitutes ''men's work'' and ''women's work'', the conditions in which they work and the value attributed to their work.

Despite the strong tradition, especially among feminist scholars, to challenge the assumption that gender division of roles and norms is natural, most literature tends to list conventional gender norms and roles that cut across cultural settings. In most cultures, women are socialized into feminine norms of subordination, passiveness, loyalty and silence, especially about their sexuality and rights, and perform reproductive roles, that is responsibility for child bearing and rearing and family nurturing, while income earning is considered their secondary role [23]. Men are generally depicted as physically strong, dominant over women, sexually active, independent, risk-takers and decision-makers, and are expected to engage primarily in productive work to financially provide for their wives and children, usually referred to as a ''breadwinner role'' [21,22,24].

However, in all societies, and in Africa in particular, the pattern of gender relations and roles in the family, the work place and society is changing rapidly. Contemporary gender roles in Africa are no longer clear or largely complementary as they were in the pre-colonial era [25–27]. By introducing wage labour and employment for men, the colonial powers significantly transformed men's gender role and identity from being primarily hunters and warriors, who defended families and depended on women for food, to reliance on wages to support their families [28–30]. Yet recently men have found it difficult to fulfil these gender roles, due to socio-economic changes, especially unemployment and the HIV/AIDS epidemic, which has disempowered them and led to loss of self-esteem [29–31].

Living and working with HIV/AIDS

Current data on HIV prevalence in Uganda shows that it is concentrated in the 24 to 49 age group [32], a group which performs critical economic and social roles for families, communities and the country.

Without treatment, people living with HIV experience multiple HIV-related illnesses, which hamper their ability to work. In addition, in Uganda as in many other settings in SSA [33], people living with HIV continue to experience various levels of stigma and discrimination at their place of work. However, with effective treatment the experience of people living with HIV shifts from a terminal illness to chronic manageable disease, permitting someone to remain in work or return to work [34,35]. Work is not only for economic benefit. McReynolds [36] explored the meaning of work to people living with HIV in the USA and reported that participants emphasized certain norms and values of working in spite of HIV-related illnesses; work, to her participants, served as a measure that all was not lost, that the person living with HIV was still contributing to collective life and was continuing to fight for survival. In exploring the meaning of work among our participants, we adopt a definition of work that encompasses productive activities for economic benefits as well as the symbolic and social processes through which ethos and identity are maintained [37].

Methods

Ethics statement

The paper is from a PhD study exploring masculine identities and treatment-seeking for AIDS in Eastern Uganda reviewed by the Science and Ethics committees of The Uganda Virus Research Institute and The University of Glasgow Faculty of Social Science, and cleared by the Uganda National Council for Science and Technology. Informed consent was obtained from all interviewees. Pseudonyms are used for both the study village and participants to enhance confidentiality.

Study setting, sample and data collection

This paper draws on ethnographic data collected from an artisanal gold mining community between August 2009 and August 2010. Mam-Kiror village is located in Busia District, 196 km South East of Kampala, the capital city of Uganda. The village had a population of about 750 people, the majority of whom were the Iteso people. HIV prevalence in the district is estimated to be 10%, higher than the national prevalence of 6.5%. Most people in the village had less than 7 years of schooling, and due to a limited number of formal sectors in the area, education was not a primary means to accessing work.

GES, a male Itesot in his early 30s, conducted participant observation and complemented it with 26 in-depth interviews with men. Interviewees comprised nine men receiving free HIV treatment from a public facility, eight who had dropped out or had not initiated treatment despite testing, six who suspected HIV infection but had not sought testing and three men who had other health concerns unrelated to HIV infection, who were included primarily to mask the ethnographic focus on men with HIV by undertaking the study with a more diverse group of men. The interviewees were selected through purposeful and snowball sampling methods. The majority of the interviewees on treatment were accessed with the help of treatment providers who also

helped to contact some men who had dropped out of treatment or who had been tested but had not sought HIV treatment. The snowball process was facilitated by two of the participants receiving HIV treatment who knew others within the village who had either dropped out of treatment or who suspected that they were infected with HIV-related disease but had not tested. Interviews were loosely structured, based on a flexible topic guide, which included ''what it means to be man'', ''experiences with HIV/AIDS'' and ''how work and family's economic situation have impacted on treatment efforts''. The interviews lasted between 50 and 90 minutes and were conducted in Ateso language. They were audio recorded and transcribed.

The interviewees were between 27 and 51 years old, and all except three had children of their own. Although only 10 men reported being actively involved in artisanal gold mining at the time of the interview, all of them had been at some stage in their life. Three men had recently closed their businesses due to illness or other challenges. However, it became apparent as fieldwork progressed that most of the men had multiple livelihood sources but generally earned small incomes.

Participant observation involved GES living in the study village for a year and interacting with local people, including the interviewees, listening to and sharing their day-to-day stories and conversations, as they related to social life, masculinity and health. Sometimes I talked to particular men individually but often conversations with them included others, such as family members, neighbours, peers or colleagues. Interactions took place in different contexts and sites within the village including homes, work places, bars, restaurants, social gatherings, or as we walked. Field notes were usually written out at the end of each day.

Data analysis

Thematic framework analysis [38] was performed and managed using NVivo 8. The process involved summarizing the data systematically in a matrix, comparing cases, and checking emerging hypotheses against all relevant data. The initial step involved transcription and translation of the interviews by an experienced translator, and importing data into NVivo 8 in preparation for coding. GES then read the 26 transcripts, and the 22 pieces of observation notes (approximately 35 hours of participant observation data) that focused on the subjects of work, economy and money, to identify preliminary thematic categories for creating a coding schedule. Themes that were explicit from the fieldnotes and participants' accounts were prioritized for coding, but further analytic reading of transcripts and field notes yielded other unexpected categories, including ''*akitopol ere* (family's economic progress) as a more central masculine role'', ''the significance of occupational identity'' and ''the use of ability to work hard again as a measure of the efficacy of HIV treatment''. All three authors then discussed the identified thematic areas and agreed on a final coding frame.

Systematic coding was then undertaken by GES and involved pooling together the relevant segments of data into a ''node'', which is the NVivo equivalent of a theme. The themes or nodes were structured under higher-order themes, with subthemes on the basis of their links and relationships with each other. A matrix table was subsequently used to chart the NVivo coded themes, displaying and generating concepts that precisely summarized what the codes and data were implying and to establish patterns, variations and recurrent themes across the codes. This process enabled us to check hypotheses against relevant data, for instance, in seeking explanations for how and why for some men economic circumstances and work threatened uptake of AIDS treatment.

Results

Masculinity in Mam-Kiror village

Men in Mam-Kiror village drew from a wide range of norms and practices to fulfil the social and individual expectations of being manly. They subscribed to various constructs of masculinity including those related to marriage and sexual achievement, respectability, being outgoing, male oriented friendships, work ethic and ''sacrifice'' for family, money-making and property ownership. Although not all men in the village displayed all of these attributes all of the time and in equal measure, these ideals more or less provided the framework within which men interpreted the meaning of undertaking HIV testing and/or treatment. In particular, having work to do and making money was an important theme of everyday discourse among men and was considered a pertinent signifier of being sufficiently masculine. Work and money enhanced other masculine credentials, for example, to have a wife, or wives/additional sexual partners, one needed to have money.

Categories of work, men's economic circumstances and constructions of masculinity

For the men of Mam-Kiror village, masculinity was measured predominantly in terms of one's work, resources/money earned and the extent to which a man was able to support his family. Although the most pressing everyday economic concern in the village was about ''survival'', people also worried about how to save and improve their economic status. However, Mam-Kiror village had a limited range of types of work. Men had to compete for the limited casual paid work, for which a reputation of hard work and strength helped. This meant that men's economic situation varied over time; often proportionately to their ability to work hard and expenditure pattern. The majority of the population in the village, especially women, were subsistence farmers while the majority of men carried out small-scale artisanal gold miners to access cash. The mining method was open cast, and extraction and processing of the ore was rudimentary and labour intensive. This was characterized by men working in small and independent groups of 5 to 20 members in order to pool labour and financial resources to hire equipment and a portion of mining land. Sometimes, individual miners were hired to mine for a daily wage by wealthier men. The ore mined by group members is shared equally on the assumption that every member has made equal labour contribution. Although highly laborious and accident prone, gold mining was popular among men for its quick and more regular

money-generating potential compared to other non-mining occupations.

To the men, material assets – typically domestic fowl and animals, a bicycle or motorcycle, and for a few, a piece of land or a small business enterprise – were important sources of self-esteem and status. Men who did not own anything ''worth talking about'', as many people often put it, were often ridiculed and judged as failures, especially by fellow men, and their self-worth and masculinity challenged. The quest for material ownership as a measure of masculinity compelled men to work hard, usually in risky ventures, with complete disregard for their own welfare and health. Men living with HIV or suspecting HIV infection were particularly emphatic about the centrality and urgency of money, work and working relationships in their lives and in their quest for HIV therapy.

In this area, working and work environments, in particular the mining sites, were important for constructing various dominant dimensions of masculinity. With mining activities structured and organized predominantly into groups of men who carried out the hugely laborious mining tasks, a distinct masculine work ethic and norms of hard work, demonstrations of physical strength, interdependence and teamwork were emphasized. It was at work that men evaluated, mentored, validated or rejected others' attributes of being sufficiently manly. Mining sites were also arenas for competition, conflicts and sabotage, especially between different groups but sometimes also amongst group members. Furthermore, the mines were relatively isolated male-only territories, where men seemed to find it easier to engage in talk about their manliness, sexuality and health, which would otherwise be embarrassing if discussed in the presence of other groups such as women and children. Men's narratives of why they toiled so hard projected the family as the primary motivation into the incredibly strenuous work of gold mining. Most men used the phrase ''family's survival'', thereby drawing on the dominant masculine discourse of men as providers for their families. For the men living with HIV, many of these norms and expectations and circumstances of work were perceived to be contradictory to the demands and experiences of living with HIV or its treatment, which required both living ''normally'' and continuing with one's social roles, as well as being patients who cared for their health.

How masculine work ideologies and economic concerns threaten men's uptake of testing and treatment

Depletion of family resources while trying to treat symptoms of HIV-related disease or to support ART

Many participants reported spending large proportions of income, alleviating symptoms prior to confirming their HIV infection. This seriously undermined the sense of masculinity that men gained from material ownership and family provisioning, as illustrated in the account of Isaiah, a 49-year-old man who had stopped receiving ART:

> Many times when you start falling sick, it is not only your health that deteriorates but everything of yours. Everything that was running well under your control gets disorganized when this illness strikes, for example in my case, I was running my small shop from where I could put salt and sugar in the house but all the capital went into my treatment before I realized it was HIV. We wasted money trying different treatments here and there.

Enrolling on free HIV treatment drastically reduced the expenses on treatment of symptoms, but transport costs and other incidentals incurred during pill refill, and CD4 test appointments still constituted a significant expenditure to men's small incomes and forced them into selling family assets such as land, goats or business stock. Most participants described these expenditures as having ''left them with nothing'', and those who worried that they were bound to lose everything they owned, such as Isaiah, stopped going for treatment. Worries about the impact of their treatment on family's resources were further heightened when men considered their obligations as fathers and providers of future productive resources for their children. Juma, a 51 year old, who had discontinued Septrin treatment narrated that the illnesses that preceded HIV diagnosis forced him to reduce work, yet as he continued to spend on treatment, he realized that he spared nothing for the children:

> I was feeling a bit of a sense of irresponsibility as a man just because everything was going, and I said what if I die, what I will leave the children with, what will people say; that that man squandered everything and left children with nothing?

As Juma's narrative suggests, irrespective of their treatment or HIV status, fathers were expected by society and their families to fulfil some core masculine roles. Fathers may not have accessed food for their families, but they were expected to perform the role of *akitopol ere* (ensuring family economic progress) as their core obligation. The concept of *akitopol ere* articulates a wider dimension of men's provider role; it may incorporate breadwinning as is conventionally understood but, more importantly, refers to men's other fundamental roles of providing the strategic developmental needs of the family, including children's education, medical needs, providing land and ensuring the family's future prosperity. Unlike breadwinning that was often described as ''helping the woman'', and hence less mandatory, family economic progress was regarded as what the man ought to do for their family. Men would be judged more harshly for failing in this role. In general, a *proper* man was expected to work hard and provide resources that would ultimately transform the children's future. While many men admitted to failing *akitopol ere*, citing poverty as the main reason for their failures, they acknowledged that one had to act in ways that showed they were not wasteful of the available resources that would be of great use to children. However, AIDS, and, for some, its treatment was seen to exacerbate the challenge of *akitopol ere*, hence undermining masculinity.

With the exception of one man, all those who had initiated and later discontinued their treatment, as well those who did not initiate it despite testing, were not receiving any support

in the form of livelihood projects from their treatment providers or government. Frank (45 years of age, who did not initiate treatment) for example, lamented the absence of special support for him to care for his children, while Isaiah who initiated treatment and later dropped out, described himself and others like him who were not receiving support as ''. . . neglected by government yet it knows that the illness has greatly devastated our economic bases and strength to work''. In other cases, withdrawal of support also undermined men's commitment to treatment as seen from Moses' example. Moses, who discontinued ART after 7 years, had received psychosocial care and material support, including food, clean water and transport for clinic appointments under the Home-Based AIDS Care Research Project by CDC-Uganda. However, when CDC ceased its operations and transitioned patients to another treatment programme where such benefits were not offered, Moses was deeply aggrieved by the loss of this support, and in part attributed his cessation of treatment to this, saying: ''My people (treatment providers) have also neglected me. I even see no need for their drugs''. In contrast, men like Noah, 50 years of age; Salim, 45 years of age, and Abraham, 50 years of age, who repeatedly emphasized their commitment to staying on treatment, were recipients of goats, oxen and/or support for children's education expenses, as part of livelihood and social support programme from their treatment provider, a different one from Moses'.

Fear of exclusion from work and the desire to maintain occupational identity

Men living with HIV and/or on treatment feared that disclosing their HIV diagnosis and treatment to employers and work colleagues could reduce job offers and/or collaborative work as colleagues feared working with ''ill'' persons, undermining both their reputation as capable workers and ability to provide for families. Men who often worked with others in groups in the mines or in construction sites felt more threatened by their treatment compared to men who worked individually/privately, and those who feared they could not continue to conceal their treatment chose to abandon it. Such men were, however, also the most likely to have improved substantially due to treatment and therefore found it easier to drop the treatment. These men reported that in contract or collaborative work, showing weakness is disapproved of and is detrimental to the group, hence being known to be HIV positive or receiving treatment made one vulnerable to being side-lined due to the belief that the sickness would be disruptive to the team's ability to work normally. For example, Alfred (38 years of age, discontinued ART), a builder who regularly worked with others, expressed anxiety about the possible negative reaction of both his contractors and his colleagues if they realized that he was taking ART. He believed that his colleagues or employers would feel uncomfortable working with a known sick person for fear of blame, in case his illness worsened due to work, while job competitors may use information about his health against him, which would affect his ability to provide for family:

> The contractor can fear to offer you work if they come to know that you are on drugs; they will ask themselves, ''who are you to overwork that man in case he got any problem in your hands!''

Unlike Alfred, whose fears reflected anticipated stigma, other men reported actual experiences of work-related marginalization by colleagues due to their HIV status. An example of this was Solomon (42 years of age, not tested but suspecting HIV infection), who reported being side-lined by his gold mining colleagues who had themselves recommended that he took on lighter tasks following his infection with chronic cough, which many suspected to be symptomatic of TB/HIV-related disease:

> They told me to do the lighter work but later started giving me less share of the ore; say for example out of an expected five basins of ore, they gave me two or one, and this could bring quarrels because I was not happy.

However, disclosure of status to colleagues did not always lead to negative reactions; some men received sympathy and health advice from work colleagues. Yet, the sympathy from colleagues made some men feel different, leading them to question their self-identity. This is illustrated by Tony's (39 years of age, suspecting HIV-related disease but not tested) explanation below, which highlighted not only how his poor health affected his ability to work and the relations with work colleagues, but also how it impacted on perceptions of his manliness:

> They (colleagues) said I should first go for testing to find out what I am suffering from /. . ./ and that they will not forget about me completely; they will pass by home and give me also something (assistance) in case they have got. /. . ./ I see them sympathizing with me for my condition, that because I was also a hardworking man before this sickness started. So, I see that I am now different from other men.

Drug ''side-effects'' destabilized employment/work, affecting the sense of masculinity gained from being able to work and consequently led some men to discontinue treatment. Such men suggested that they were less able to disguise their HIV infection and carry on with work when on treatment because of side-effects. The early months of treatment in particular made them feel ''worse'' while at work. For those who had not disclosed their status or treatment, this risked exposing their illness.

Men identifying themselves primarily as miners tended to demonstrate a greater sense of occupational identity compared to men involved in other non-mining occupations and appeared to be more concerned about the impact of HIV-related disease on their working relationships. They frequently described mining work as historically men's occupation and presented it as the means through which they established a desired identity and confirmed a work ethic before others. For example, Juma explained: ''It [mining] is the work that we men of this place know. For example, I started digging gold many years ago. I dug it for almost 20

years and left but now again I am back to it.'' By referring to the gendered dimension of the mining occupation, Juma and others like him highlighted how adherence to this gender work norm made quitting the mining occupation difficult, despite the apparent incompatibility of this job with their current state of health:

> The energy was there long time but not these days. But for them [colleagues], they still think like that because my record of digging gold was good, I was very strong man. So, even if you are weak, you just keep on as they know I am not a lazy man.

Some men, partly aided by the external livelihood support, had successfully switched to cultivation or other alternative private employment following HIV diagnosis. Although they made less reference to current occupational identity issues, they too often expressed a profound desire to engage in work that helped re-establish their roles as providers, such as cultivation for economic reasons. However, men who had been on treatment longer tended to report more positive experiences about the impact of their treatment efforts on their work ethic and relationship with other workers, and also appeared less vulnerable to treatment cessations.

Fear of exhausting the gains from ART treatment

The majority of the participants on treatment believed that despite being on medication, their health remained fragile. Many thus remained anxious and fearful that engaging in strenuous work would undo the health benefits of ART. This led some of them to opt out of hard work, which in turn contradicted their reputation as hardworking men. Others also reported that even though their health had improved due to the HIV treatment, their physical strength and productivity had declined compared with other men and to their old selves, yet many of their productive activities required these characteristics. Hence, for some, ART did not seem to profoundly restore their work-related masculine pride as they would have wished, and this might be a risk factor for discontinuation of ART. Ben, a 36 year old on ART, explained that ever since he started treatment just over a year ago his involvement in heavy work had been reduced significantly because he ''has less energy'' to work hard like other men and he deeply regretted it because it affected his earning:

> I have to be careful not to harm myself further. So whenever I go to where people are mining from, I don't get involved, I just observe, and chat with them. /. . ./ I feel shamed especially because at the end of the day, the courageous men are the ones with money and you will be admiring them but what can I do, I have to choose either to die now or try to push a bit.

Overall, men living with HIV/ART or those suspecting HIV infection believed that they did not compare favourably with other men around them in terms of the ability to demonstrate the desired work ethic and/or accumulate resources from their work, which greatly affected their self-esteem. They said that for them, even when they attempt to work hard, much of the money and other economic gains from their work, which would be re-invested in work or in other ventures, is spent managing their precarious health. Isaiah's comment below captures well how this perceived difference was discussed:

> What makes their life [other men's] better is that whatever they do they do it better without disturbance, it's not disorganized like yours because with yours if you tend to work very hard, it's that very thing you do in the name of trying to earn something that will eventually increase the sickness in your body. Therefore whatever you get again goes on the illness, but for the other one his remain intact and progresses, but for us all plans are spoiled.

How the masculine work ideology and norms positively influence men's uptake of HIV testing and treatment

Work colleagues monitor their health and suggest a test/treatment

The majority of the participants narrated how, in various ways, their decision as to whether or not to seek an HIV test or treatment was influenced by colleagues with whom they often worked. As most men spent much of their time in the gold mines working with others, colleagues were able to notice changes in their health and suggested that they seek medical treatment. For example, Solomon who was contemplating testing explained how his friends grew concerned about his health:

> Just like we are seated now and I am coughing can't someone suggest to take you to hospital? So my friends, I am with them all the time working, and they said, ''You need to go for treatment. You might die when we are just seeing you here sick and yet we are friends''.

Participants also revealed that illnesses that threatened their ability to work or to spend leisure time with other men indicated an urgent need to test for HIV-related disease and seek treatment. One example came from Mike (31 years of age, on ART):

> The way I was feeling! Besides pain all over the body, I was coughing and sometimes blood. When I saw that I was not able to work, I said no, this thing is bad, I am going to check. Before that, I was working a lot, then the pain begun and kept on increasing and also the cough and headache was too much, non-stop, I could not work and could not be with others; just home all the time. When I went to test, I realized that I had this disease.

''Resurrecting'' due to ART and being able to walk and work again

Men who had successfully initiated and sustained their ART treatment presented accounts that suggested that by restoring their physical health and strength, ART also rejuvenated their masculinities in various ways. Several men said they had ''resurrected (*akikwarun*) after being

counted dead'' and were now able to walk and work again. For example, Noah, 50 years old, a subsistence cultivator, who had been on ART for 8 years said: ''I am just okay with my drugs, they are the ones that have made me able to work again, because without them, I cannot work.'' Thus, HIV testing and treatment may be undertaken by some men to regain health, self-worth, ability to work and provide material support for their families, consequently regaining their masculine worth.

Some men whose health had dramatically improved due to ART were reputed to be the hardest working in the village, prompting ambivalent comments such as, ''why do the sick men tend to overwork themselves!'' Noah and his cousin Salim were two renowned examples; both engaging in relatively successful subsistence cultivation. From talking with and observing the routine activities of Noah, Salim and Isaac, it emerged that being able to work was used by some men as a tool to measure the extent to which their health had improved due to ART. In particular, being able to work in physically demanding jobs like cultivation, ''just like before HIV diagnosis'', was used for interpreting the gains of ART, which encouraged them to adhere to treatment. For example, Noah said ''I am able to work just normally, so I know my body is well and the drugs are working''. While this finding appeared to be inconsistent with the views of other men such as Ben, who feared to undo the benefits of ART by overworking, overall, the stories of hard work and resurrection show the ray of hope that ART represented for many aspects of these men's social and economic lives. They illustrate how ART turned the most desperate and hopeless situation into optimism and a reconnection with their social world in which they again could play their social roles as men. To these men, ART had restored what AIDS had removed from them - strength and health - and by extension all the advantages that followed the good health.

Discussion

This paper draws attention to the complex ways in which work-related values and norms may influence men's testing and use of HIV treatment in a rural setting. Although there was diversity in the participants' experiences, the dominant concerns repeatedly expressed in their accounts provide vital insights into how a masculine work ethic and economic circumstances affect HIV testing and treatment.

Our findings suggest that the expression of masculinity through hard work and money-making can both encourage and discourage men's HIV treatment-seeking. On the one hand, HIV testing and treatment may be sought and adhered to by men in order to improve their health and get back to work, and in the process regaining their masculine reputation and worth as hard workers and providers for their families. Several studies show that as people's health improves due to ART, it enables a return to ''normal'' life, rekindling various hopes and dreams, including performance of social roles and ability to work again [35,37,39]. We argue that this may be particularly crucial for our sample of men, as their masculinity is assessed predominantly in terms of their work ethic and reputation as hard workers. Some men receiving HIV treatment used their ability to labour as a measure of the impact of ART on their health, with those who were again able to work consistently attributing this to their medicine.

For a number of participants, the decision to seek testing was influenced by their work colleagues who evaluated symptoms, frankly discussed risk of HIV infection with them and recommended medical treatment. This finding supports previous research among small-scale enterprises in Kabale district, Western Uganda, which found that co-workers tend to advise each other on HIV testing [40]. Although in our study disclosure after testing was portrayed as problematic, discussion of health matters within work teams was quite common and seems a vital aspect of health seeking for sexual health problems. It may therefore be useful for health promotion to encourage such opportunities among colleagues and members of their social networks.

On the other hand, a masculinity judged in terms of money-making, savings and hard work compromises men's uptake of HIV testing and treatment in various ways. Consistent with other studies [41], our findings show that drug side-effects, fear of discrimination and felt stigma are important barriers to employment among people living with HIV. Men who had discontinued ART expressed strong views that medical side-effects were disruptive to work, while many feared that disclosing HIV treatment to fellow workers or employers would leave them vulnerable to being judged as unable to work or as incompetent. Some studies have suggested that people on HIV treatment tend to respond to the challenges of work variously, with some quitting work altogether while others reduce their workload or hours of labour [42]. However for the majority of our participants, who relied on teamwork, adjusting both the workload and schedule were difficult, because work was organized on the premise that everyone worked at the same rate and showing weakness undermined one's sense of masculinity. Furthermore, quitting mining was difficult because it was financially more attractive and had higher status than other local occupations, as found in the Congo [43]. In a context where great emphasis is placed on material possessions as an expression of masculinity, men were compelled by individual and social pressure to work hard irrespective of their health, while others worried that spending saving on supporting ART left them with nothing, undermining the masculinity of ownership.

In view of the foregoing analysis, a fundamental question then is: why do some men find HIV treatment beneficial for their masculine work ethic and identity and others find that it undermines their masculine identity? Our findings do not offer a definite answer to this question but suggest two possible explanations. First, possessing a strong sense of occupational identity, sharing working group norms and regarding physical strength as a core measure of masculinity discouraged men from seeking testing or maintaining treatment. If treatment was thought to have failed to restore strength to the previous level, or caused side-effects that were disruptive to work, it was readily dropped because it prevented the demonstration of one's previous work ethic and preservation of the collective work identity.

Second, shifting from mining to alternative self-employed occupations meant that HIV treatment came to enhance rather than threaten their masculine work ethic. HIV status and treatment could be more readily concealed and, if disclosed, there was no danger of being marginalized by other workers. Economic support or livelihood projects from treatment providers or aid agencies were useful in restoring masculinity, since they allowed men to fulfil their key roles as providers. However, for many men their most vital value appeared to be that they enabled men to shift into non-mining work, which could be undertaken without having to worry about disclosure of HIV treatment to colleagues.

Nearly all the men interviewed in this study were involved in demanding manual labour of some kind, so we are unsure how male workers with less physically demanding work would respond to ART. Future large-scale research may be needed to explore the variations of men's response to ART across different employment sectors. Studies employing both quantitative and qualitative methods could address generalizability concerns, which was the main limitation with our sample. Furthermore, future research might investigate how the influence of masculinity on HIV testing and treatment changes as those living with HIV age and treatment is taken up more widely.

Conclusions

Recently, there have been global calls to pay greater attention to those who risk exclusion from HIV/AIDS treatment, care and prevention because of their gender roles and behaviour. This paper argues that the expression of masculinity through a work ethic and money-making promotes both favourable and unfavourable behaviour for men's health seeking in relation to HIV/AIDS treatment. Although treatment improved most men's health and enabled them to work again, in the process regaining self-worth, drug side-effects and disclosing HIV diagnosis and treatment to employers and work colleagues resulted in many men fearing to be, or actually being, judged as unable to work and being marginalized from work. This significantly undermined their masculine repute as hard workers, earners and providers for their families, leading many not to initiate HIV treatment or to drop out. HIV treatment providers and aid agencies need to focus on how masculine work ethic and economic circumstances undermine men's access to treatment and develop interventions to support them. Future studies need to explore the pattern of access to, and experiences of using, HIV treatment among men in different work structures and industries.

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Competing interests
Authors have no competing interests to declare.

Authors' contributions
GES took the lead role in conceptualizing and designing the study, collected data, carried out the analysis and drafted the manuscript. DW and JAS participated in conceptualizing the study and advised GES during the analysis and drafting of the manuscript. All the authors read and approved the final manuscript.

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