

Patriarchy, couple counselling and testing in preventing mother-to-child transmission of HIV in Zimbabwe



Authors:

Vimbai Chibango¹ 
Cheryl Potgieter¹ 

Affiliations:

¹Department of Gender Justice, Health and Human Development, Faculty of Innovation and Engagement, Durban University of Technology, Durban, South Africa

Project Research Registration:

Project Number:
HSS/0003/014D

Corresponding author:

Vimbai Chibango,
vimbaic@dut.ac.za

Dates:

Received: 30 June 2022
Accepted: 26 Sept. 2022
Published: 25 Apr. 2023

How to cite this article:

Chibango, V. & Potgieter, C., 2023, 'Patriarchy, couple counselling and testing in preventing mother-to-child transmission of HIV in Zimbabwe', *HTS Teologiese Studies/Theological Studies* 79(1), a7891. <https://doi.org/10.4102/hts.v79i1.7891>

Copyright:

© 2023. The Authors.
Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

The World Health Organization (WHO) recommends couple human immunodeficiency virus (HIV) counselling and testing (CHCT) as one of the beneficial and cost-effective means for the prevention of mother-to-child transmission (PMTCT) of HIV within couple's relationships. However, CHCT within the PMTCT of HIV settings in Zimbabwe remains low. This study explored adult men and women's views from a rural district of Zimbabwe regarding the possible factors that facilitate or inhibit the uptake of CHCT for the PMTCT of HIV. The study utilised qualitative methods. Data were collected by conducting eight focus group discussions among adult men and women, as well as eight in-depth interviews with pregnant women admitted in antenatal wards in local hospitals. Thematic analysis was used for analysing the data with the aid of NVivo software. The study revealed that CHCT initiatives were hampered by certain patriarchal behaviours and beliefs that make it acceptable for men to have multiple sexual partners, thereby exposing their marriages and relationships to HIV. Social constructions around gender roles tend to prescribe women as the sole custodians of children's health, and this led to stigmatisation against men who participated in PMTCT programmes. In addition, certain religious practices do not allow the use of medicine, which makes CHCT a nonevent. However, engaging men on platforms that advocate for progressive masculinities and raising awareness of this practice through information dissemination were identified as enablers in increasing CHCT.

Contribution: The significant contribution of this study is that it demonstrated the importance of acknowledging the societal, cultural and religious practices inherent in a community, as they are central to their responses to HIV prevention interventions.

Keywords: couple counselling; gender; HIV; masculinity; patriarchy; cultural beliefs; religion.

Introduction

The Joint United Nations Programme on HIV/AIDS (UNAIDS) states that approximately 1.3 million Zimbabweans are living with human immunodeficiency virus (HIV), with about 31 000 new infections per year (UNAIDS 2020). The Zimbabwean National AIDS Council (ZNAC) report (2017) confirms De Walque's (2007) point that HIV serodiscordancy (a mixed HIV status where one partner tests seropositive and the other tests seronegative) among heterosexual people in stable unions is generally high in sub-Saharan Africa (SSA). On average, serodiscordant couples were responsible for about 30% of the new HIV infections in SSA in 2012 (Chemaitelly et al. 2013, 2014).

Given the high rate of serodiscordancy and as a means for the prevention of mother-to-child transmission (PMTCT) of HIV, couple HIV counselling and testing (CHCT) is deemed to be a crucial intervention to prevent HIV from mother-to-child transmissions (Bwambale et al. 2008; Hughes et al. 2020; Sibanda et al. 2017). Zimbabwe, like many other countries, provides a CHCT service to two people who are, or who intend to be, in a sexual relationship (Nakiire et al. 2020). A primary benefit attached to CHCT is that it encourages couples to test together and facilitates disclosure of their HIV test results (Thirumurthy et al. 2016). In addition, they can jointly make informed decisions regarding HIV prevention and their reproductive health (World Health Organization [WHO] 2012). Various studies also acknowledge that couple counselling and testing is an opportunity for a couple to learn their status together, and it promotes safer sexual behaviour (Bhushan et al. 2019; Crankshaw et al. 2014; Njau et al. 2012).

In the context of the PMTCT of HIV, these services are provided to couples so as to facilitate collective efforts towards ensuring that their child is prevented from being infected with HIV. One of the primary advantages of CHCT is that after obtaining, for example, a positive test result, they

Read online:



Scan this QR code with your smart phone or mobile device to read online.

will immediately be provided services for HIV treatment, care and support, which are all directed towards the PMTCT of HIV (Lolekha et al. 2014; WHO 2012). Another positive consequence of HIV couple counselling and testing is that it serves as an effective means of social support, especially for pregnant women who have been diagnosed as HIV positive (Bhushan et al. 2019; Maman, Van Rooyen & Groves 2014).

In order to increase the uptake and utilisation of CHCT services, many countries introduced various measures such as motivating male partners by including them with verbal or written invitations (Rosenberg et al. 2015; Theuring et al. 2016). Using similar methods of invitation, South Africa has within the past 5 years documented progress with increasing rates of couples who received HIV counselling and testing by its various stakeholders (Davey & Wall 2017). In a pilot study conducted between May and June 2017 which aimed at improving case finding and antiretroviral therapy initiation, approximately 63% of the people who tested were couples (Davey & Wall 2017). In other African settings, promotional strategies such as door-to-door outreaches by community workers, the use of incentives and extended weekend CHCT services in antenatal clinics were useful in increasing the number of couples testing for HIV (Kululanga, Sundby & Chirwa 2011; Theuring et al. 2016).

However, despite the efforts made towards increasing the rates of CHCT, its uptake is still suboptimal in many sub-Saharan countries (Hailemariam et al. 2020; Rosenberg et al. 2015; Sibanda et al. 2017). Reasons for the uptake hesitancy include the fear of stigmatisation, the fear of divorce or rejection by partners, intimate partner violence and the fear of accusations of infidelity (McMahon et al. 2017; Njau et al. 2012).

In addition to the slow uptake, a number of studies conducted in various African countries found that very few couples sought HIV testing together (Crankshaw et al. 2014; Kelley et al. 2011; Makoni et al. 2016). The majority of studies also indicated that the proportion of pregnant women who test alone is phenomenally higher than those who test with partners (Hailemariam et al. 2020; Krakowiak et al. 2016). Research clearly showed that women prefer to test without partners because of gender-based violence, abandonment and abuse if the HIV result is positive (McMahon et al. 2017; Njau et al. 2012). A systematic review and meta-analysis study on CHCT among heterosexual partners in SSA revealed that because of the fear of possible adverse effects resulting from CHCT, individual women in a dyad preferred to test alone before they made the decision to test together with their partner (Hailemariam et al. 2020).

The slow uptake of CHCT can also be attributed to various factors that specifically affect male partners. One of the factors is male partners' hesitance to take part in CHCT within antenatal and postnatal care settings, because the health care services focus mainly on maternal and child health, and it is thus viewed as a female domain (Boniphace et al. 2021; Ramirez-Ferrero & Lusti-Narasimhan 2012).

Other factors that influence men's utilisation of the couple counselling and testing services that are offered within the PMTCT of HIV programmes in particular are usually linked to social constructions of gender which define pregnancy and childcare as 'women's' work (Boniphace et al. 2021; Wamoyi et al. 2017).

Like many other countries in SSA, Zimbabwe is among the worst affected by HIV and AIDS, with approximately 84 000 children between 0 and 14 years living with HIV (UNAIDS 2020). However, PMTCT of HIV is one of the strongest programmes responding to HIV in the country, with about 875 sites since 2002 (Musarandega et al. 2020). In an effort to eliminate mother-to-child transmission of HIV, the country adopted the recommendations of the WHO to guide the implementation of HIV programmes. The aim of the guidelines is to facilitate the uptake of HIV counselling and testing services and to enable the provision of antiretroviral therapy among serodiscordant couples (WHO 2012). However, evidence shows that the uptake of couple HIV counselling is generally low as compared to individual testing (Dube et al. 2017), particularly in rural areas (Sibanda et al. 2017).

The current study

Given that the uptake of CHCT is low in rural Zimbabwe, the current study sought to explore the voices of adult men and women from a rural district of Zimbabwe on their views regarding the feasibility of CHCT and to identify the possible challenges that are associated with the practice for the PMTCT of HIV.

Conceptual framework

The study was guided by the gender and development (GAD) theory. In describing the characteristics of the gender and development theory, Parpart, Connelly and Barribeau (2000) stated that:

[It] adopts a two-pronged approach to the study of women and development, investigating women's material conditions and class position, as well as the patriarchal structures and ideas that define and maintain women's subordination. The focus is on relationships between women and men, not women alone. (p. 62)

The gender and development theory takes into consideration the historical social constructions of gender which prescribed men as superior to women (Moser 1993). The aim of the gender and development theory is to rise above the limitations of the previous developmental programmes such as the Women in Development (WID) programme, in which women were integrated into development without any fundamental changes to gender inequalities (Asante 2000). The gender and development theory seeks to ensure that holistic equality between men and women is realised and that gender inequalities are addressed. In support of this approach, Tolhurst et al. (2012) also suggest that gender mainstreaming in health programmes must ensure that hegemonic masculinities be addressed in a way that benefits

men and women equally. The main strength of the gender and development theory is that it takes a transformative approach in reserving gender equality by promoting positive masculinities. This entails engaging men and boys in programmes that advocate positive behaviour change so as to promote women's economic empowerment and reduce gender-based violence (Bapolisi et al. 2020). The same approach is supported strongly by Ratele, whose work aims to advance gender equality and contribute to the construction of progressive masculinities (Ratele 2014, 2015). Applied to this study, the gender and development theory facilitates the unpacking of the gender relations and roles between men and women, and specifically how these influence the utilisation of HIV counselling and testing by women and men.

Methods

This study was conducted using qualitative research methods and a phenomenological design. The rationale for opting for a phenomenological design was that it sought to understand the subject under investigation from the lived experiences of the participants (Creswell & Poth 2016). The use of the phenomenological approach enabled the study participants to describe, narrate and explain their views and experiences pertaining to CHCT as lived by them.

In order to gather the views and experiences on the subject, the study used focus group discussions (FGDs) and in-depth interviews (IDIs) as the sources of data. The rationale for using FGDs was that they facilitated the production of data from a group of individuals who had homogenous characteristics or demographics (Kitzinger 1995). In qualitative research, FGDs are a method of data collection that focuses on the discussing and exchanging of ideas, views, feelings and experiences with the study participants on the research subject (Kitzinger 1995; Muijeen, Kongvattananon & Somprasert 2020). On the other hand, the IDIs enabled an exploration of the personal experiences and perceptions of CHCT for PMTCT of HIV by individual women. According to Boyce and Neale (2006), IDIs can be used when a researcher wants to distinguish individual opinions from those of the group about a specific topic.

The study was restricted to the Gokwe North district in the Midlands province of Zimbabwe. According to Gender Links (GL 2019), the population of the district was approximately 244 976 by 2019. The district is located in the remote rural areas and is governed by traditional chiefs and village headmen who oversee the management of the various villages and clusters within the district. Subsistence farming is the main source of livelihood.

Participants were selected using a nonprobability purposive sampling technique. For the IDIs, participants were drawn from the two main hospitals in the district, as they had large numbers of women admitted for antenatal and postnatal care. These participants were considered because they were assumed to have had direct experiences with their partners in terms of HIV counselling and testing. With regard to

recruitment of the participants, the researcher approached the management of the hospitals, who subsequently instructed the nurses in charge of the maternity wards to facilitate the recruitment processes. The nurses in charge facilitated by organising meetings with women who had no ailments, so as to explain the overall purpose of the study and to request their participation. Individual women who consented to take part in the study met with the researcher and scheduled the time and date they could avail themselves for their interviews. A total of eight women were interviewed, whose ages were between 18 and 38 years.

Similarly, participants for the FGDs were also selected using purposive sampling but with the aid of the chain referral technique. Participants for the FGDs were men and women reached through key organisations that existed in the district. These included churches, humanitarian organisations, health care centres and those belonging to community projects. The leaders of the various groups were the entry points who facilitated participation by identifying and inviting potential participants from their respective groups. The participants had to have been residents of the district for at least a year. The understanding was that after staying in the district for a period of a year, any new resident would have been familiar with the lifestyle, community norms and practices. A total of eight FGDs were conducted. Of these, two consisted only of men, two had women only, while the other four had a combination of both men and women. The age range of the participants was between 18 and 72 years.

Interviews and participant observations were used for collecting the data. Separate semistructured interview guides punctuated with probes were used for the FGDs and IDIs. The IDIs were conducted by the principal investigator, while the FGDs were moderated by a trained research assistant. Focus group discussions took about 90 min to complete, while the IDIs lasted for a minimum of 45 min to about an hour on average. Interviews were audio recorded, and notes were captured so as to document significant observations. Participants were provided an option to choose their preferred language as the medium of communication. Most of the participants chose to use the ChiShona language, while a few professionals preferred to use English. However, some of the participants in the FGDs switched between the English and ChiShona languages. The audio recordings were transcribed and subsequently translated into English.

The data were analysed using thematic analysis, which involved thorough reading of the transcripts and notes so as to facilitate familiarisation with the data. NVivo software was used to identify and arrange the themes that emerged from the transcripts. All quotes or statements were organised into their respective categories or subthemes by combining the quotes that had a common meaning. In order to ensure that no information was lost, original quotes were extracted from the interviews and were used for illustrations in the presentation of the findings.

Results

Participants in the study generally agreed that HIV couple counselling could be a challenging practice because of the patriarchal tendencies that were evident in men's sexual behaviour as they brought HIV into their marriages and relationships. In addition, social constructions around gender roles in childcare influenced men's decisions to partake in CHCT in the PMTCT settings. Some of the religious sectors enforced doctrines that forbade the use of any medical or traditional approaches to healing; this made CHCT practices impossible in these sectors. Also, the practice of CHCT was found complex in situations where pregnancy resulted from extramarital unions. However, some of the approaches to increase the uptake of CHCT included the running of men's forums in organisations that engaged with men and the wide dissemination of information surrounding CHCT.

HIV infection and patriarchal behaviour

Patriarchal behaviour, which traditionally makes it appropriate for men to have multiple sexual partners as well as unprotected sex outside marriages or relationships, negatively impacts the success of CHCT interventions. Such patriarchal behaviour and beliefs which consider and expect men to be 'sexually competent' put the couples at risk of HIV as the men engage in sex with multiple partners. The results in this study portrayed most of the female participants blaming men for bringing HIV infection between couples. It appeared that most women participants thought that their partners were not faithful to them and were involved in extramarital affairs which subsequently exposed them to HIV. The following quotes displayed the views from some participants that put the blame of HIV infection on men:

'It is also important that they take part in the programmes and test for HIV with their wives so that they stop "prostituting", because that is where the virus comes from. They should use protection during sex, even with another woman [...]'. (Shelter, IDI, 35 years of age)

'Men do not want to know their status. Should they test HIV positive, there will be conflict in the house. For example, I am faithful, so he is definitely the one who would have brought the virus between us.' (Lizy, IDI, 29 years of age)

'Men may just choose not to test. Some fear that their previous "promiscuous" behaviour may lead to positive test results. Getting HIV positive test results is not an easy thing to handle. They should use condoms should they stray. There are very few women who usually get involved in extra marital affairs, unlike men.' (Shupie, FGD2, female, 24 years of age)

Stigmatisation

The results revealed that CHCT was highly stigmatised, based on two views. Firstly, men who were seen to be taking part in PMTCT programmes, including in HIV testing, were described as ignorant of their roles as men according to what was prescribed by culture and tradition. The study found that CHCT was a practice commonly known to happen

among couples who wanted to have a child or those who were pregnant. The aim of couples testing for HIV together was to receive health care services for the PMTCT of HIV. Participants, however, argued that men's participation in antenatal care seemed to be unusual and improper, because the gender roles they were accustomed to defined women as the ones responsible for children's care and welfare. This view was shared across various FGDs and IDIs:

'[...] Another problem is that of tradition that was mentioned earlier on, which states that the baby clinic is for women so if a man is seen accompanying his wife to the clinic, other men will conclude that he was charmed. This is because they do not expect him to be doing so. They even laugh at those that go while they are at work or drinking places.' (FGD 6, Tatenda, male, 47 years of age)

Secondly, people who were living with HIV were stigmatised for having been 'promiscuous'. Hence, couples who received CHCT were most likely to be labelled as HIV positive. Mary, a participant from the IDI, stated that, 'They will query why we are going together to the clinic and will conclude that we are HIV positive' (IDI, 19 years of age). Other participants concurred with the same view, as demonstrated by the following quotes:

'People quickly conclude that we are HIV positive. They even begin to question whether we also go together because we love each other or not. They also think that we will be going to take tablets together. This makes most men to hesitate about testing with wife and the child.' (IDI, Fungai, 23 years of age)

'They may not understand because they may think that the couple is HIV positive and going to collect ARVs. But this is simply due to lack of knowledge. Most people mock and may want to destroy the marriage based on what they think of the previous behaviour of either the man or the woman.' (IDI, Ester, 19 years of age)

'They will suspect that the couple is HIV positive. It gives an impression that the couple has not been faithful to each other. However, they cannot say it aloud because it is not permitted by law to discriminate against someone or to label them on the grounds of HIV status.' (IDI, Ru, 35 years of age)

Religious practices and teachings

Certain religious groups and denominations do not allow the use of medicine for healing or for any other health-related matters. Their belief is in the use of faith-based artefacts which are deemed to be solemn and have healing powers vested in them. In the context of HIV or any other life-threatening diseases, members of these church groups are prohibited from visiting health care facilities and seeking medical attention. Results from the FGDs and individual interviews showed that in these churches and communities, the goals of CHCT would not be achieved given that the church members belonging to such groups did not visit health care facilities for health care support. The following quote illustrates this view:

'If you talk about the idea of couples testing together among Apostolic churches, then you are invoking a fight with them [...]. Because some of these have five or more wives that fall pregnant but are not allowed to go the clinic for testing. He

can even get more wives and make them pregnant but will not allow them to go to the clinic for HIV testing. They say that they will only need to pray over their sick and give them some “holy” water for healing purposes. Hence, some of these religions are not practicing justice for their children because HIV is not treated that way. Also, most of these women who get into polygamous unions are usually from the same family or they are in some way related such that the elder one is usually the aunt or sister, and the young wives are young siblings. In this case, the elder one dictates what should be done in the family, as guided by church principles, and as such the young wives have got to abide by the rules.’ (John, FGD1, male, 34 years of age)

In another FGD, a similar view was highlighted, showing that CHCT could generally be a difficult practice. The participants pointed to the need for action to be taken towards transforming the churches’ understanding regarding medicine and interventions for HIV prevention and care. One of the participants illustrated this view:

‘There are some situations where this subject of couple counselling and testing is not an option at all. For instance, in the Apostolic faith churches. Their churches do not allow them to take any medicine, let alone to seek health care services at our hospitals and clinics. However, there are some women that secretly use family planning methods, so we tell the women that if they want, they can sneak and come to the hospital to collect the family planning tablets. And when they come to the clinic, they are served quickly and may not even have to stand in the queue because they do not want to be seen breaking the church rules. It is a serious problem and we do not know how best this can be handled. These are some of the serious challenges that our leaders could address because there is no treatment or support for HIV that you will find in these churches.’ (Miriam, FGD 7, female, 43 years of age)

In addition, it was impossible to conduct any interviews or FGDs among members of one of the religions that did not believe in the use of any form of medicine. In a consultation with the leaders of the sector, it was learnt that any engagement which was linked to medicine and traditional or modern health care practices was an interference with their religious norms. As a result, collection of data among this group was not successful.

Extramarital unions

The study found that CHCT was central to preventing and eliminating mother-to-child transmission (MTCT) of HIV. However, participants indicated that this practice was not always feasible in a situation where a pregnancy occurred as a result of an extramarital affair because of the societal morals and values attached to marriages, as illustrated in the following quotes:

‘The other problem is that it is not easy for a woman who has been made pregnant by a man who is not her husband to ask this man to accompany her. If it was her real husband, it will be easy for her to ask him, but if it is the other man who is not her husband, then she will find it difficult.’ (FGD 7, Thandi, female, 43 years of age)

‘It is not so easy for some of the couples to go for HIV testing together. If I will fall pregnant from someone’s husband, then I will go to the clinic and say that the pregnancy has no father. In this place people are so much connected, such that they know each other very well. Even the nurses and counsellors come from our community, so they would know most of these unions. In this case if a woman gets pregnant from an extra marital union, there is no way the man will accept to go for couple HIV counselling and testing, the truth of their affair will be out.’ (IDI, Ru, 35 years of age)

These results showed that CHCT would not be applicable to all situations; hence, health care providers needed to be sensitive when dealing with matters of marital unions.

Corridors of hope for couple HIV counselling and testing

The study participants identified possible ways in which couples could be encouraged to participate in HIV counselling and testing. These results showed that there was room to motivate for, sensitise and encourage communities to support HIV testing for couples. One of the means that participants discussed was sharing of their experiences so as to empower other couples who were facing HIV challenges. Some of the following quotations extracted from different FGDs and IDIs expressed these views:

‘Couples out there need assurance that they are not alone. If couples that have received or are still receiving couple HIV counselling and testing could share their experiences on television as a way of motivating other couples ... If more people can share their testimonies, it certainly can help to encourage couples that are dealing with similar challenges to be motivated to know how other people who were in the same situation like theirs ...’ (Stabile, FGD 6, female, 34 years of age)

The use of mass media in sharing experiences meant that this information was not only going to benefit the community where the research was conducted but was also expected to benefit the country, because this was to be broadcasted on television and radio stations:

‘I think organisations that deal with health need to make a lot of noise about the need to encourage couple testing as this is one of the most effective means to prevent mother-to-child transmission of HIV. They would ensure that all communities become familiar with information and knowledge and that no community is left behind. Like for instance our place, Gokwe, is ironically known as “Chakasara” [*lagged behind or underdeveloped*]. In the same way, there must not be any place that is left without access to information regarding this subject. Let there be posters pasted in all places where people pass; on the roads, in schools, churches, dip tanks and other places. Some people do not even know that HIV can be passed on from the mother to the child as we are discussing, hence it is important to make sure that there is information available in all places.’ (Natsai, FGD 7, female, 38 years of age)

Other than the use of mass media, participants suggest that organisations that engaged with men in various community projects could facilitate the uptake by reaching out to men

and sensitising them about HIV matters, which included CHCT. The quote below expressed this view:

'I think also increasing the number of organisations that work with men, such as "Padare" which focuses on men, helps to educate men, and motivates them to learn and become part of these programmes that deal with mother-to-child transmission of HIV. In these platforms, men are given an opportunity to learn and share knowledge on how to contribute positively to family and the community at large. There are so many issues discussed there, HIV, health and so forth.' (Nico, FGD 1, male, 54 years of age)

Organisations that provided male-oriented services and programmes could therefore play a vital role in communities by engaging, educating and sensitising men on the need of HIV prevention services, including their role in CHCT for protecting themselves, their partners and their children against HIV.

Discussion

The study aimed at exploring the prospects of CHCT in the Gokwe North rural district in Zimbabwe. Results showed that communities understood the value and benefits that came with CHCT, namely PMTCT of HIV, regardless of the challenges leading to its full realisation. The study participants recommended specific measures in support of the idea of CHCT through mass-media campaigns and engagement with organisations that conducted men's forums. However, challenges that were found to be a hindrance to CHCT included patriarchal practices that put couples at risk of HIV infection, HIV-related stigma, religion and extramarital affairs.

Stigmatisation of HIV in general and especially against those living with HIV was identified as a great cause of concern amid the developments made in terms of services such as antiretroviral therapy and care for people infected with HIV. In this study, anticipated community HIV stigma was a demotivating factor in CHCT, thereby leading to adverse health outcomes for individuals that could benefit from such interventions. These findings concurred with studies conducted in the past pertaining to the impacts of HIV-related stigma (Helms et al. 2017; Turan et al. 2016; Zhang et al. 2020). For people living with HIV, some impacts included low antiretroviral adherence, depression and poor health (Sweeney & Vanable 2016; Turan et al. 2014). The major impact related to this study was that the anticipated community stigma could potentially discourage couples from testing together, for obvious reasons such as discrimination and fear of being labelled. Previous studies suggested that in communities which were experiencing high levels of HIV stigmatisation, HIV testing services needed to be strengthened through awareness campaigns so as to target the challenges of HIV-related stigma, fear and discrimination (Ncitatkalo et al. 2021). In addition, a Kenyan study proposed a home-based CHCT model to combat HIV stigma, and it was proven to have multiple benefits, as it offered privacy and convenience and was cost-effective and less stigmatising (Kwena et al. 2021).

One of the major setbacks in the uptake of CHCT was patriarchal behaviour, which made it traditionally acceptable for men to engage in extramarital unions. These findings confirmed what previous studies observed, namely that such male sexual behaviour made women vulnerable and susceptible to HIV (Madiba & Ngwenya 2017; Naidoo, Taylor & Mabaso 2016). These social constructions surrounding men and masculinities made it culturally acceptable for men to have multiple sexual partners so as to prove their virility (Carey et al. 2010; Fleming, DiClemente & Barrington 2016), while on the contrary, in many settings, these norms dictated that women had to be passive in sexual relationships (Madiba & Ngwenya 2017; WHO 2009). These results highlighted that gender transformation was a necessary requirement for the attainment of successful CHCT initiatives. Scholars such as Morrell, Jewkes and Lindegger (2012) and Ratele (2015) are in strong support of the idea of deconstruction of dominant masculinities and engaging young boys in activities that lead to the construction of progressive masculinities. The study showed the existing gender inequalities in the Gokwe rural district which were counter-progressive among couples or relationships.

The study revealed that some religious groups did not believe in the use of any medical therapies, and such doctrines hindered the utilisation of health care services such as CHCT and other health services. Such practices were unique to certain Apostolic churches in the country. The findings of this study confirmed evidence from the previous studies which demonstrated how the most popular Apostolic church in Zimbabwe, the Johanne Marange Apostolic Church (JMC), and other similar groups resisted medical health care in favour of what they defined as spiritual healing (Musevenzi 2017). In describing JMC's health care seeking behaviours, Musevenzi (2017) stated:

It is against the group's dogma to seek medical help from modern medical services and practitioners. The related practice derives from the group's belief that illness and diseases have spiritual and religious undertones, and that these are the primary cause(s) of illness and sickness [...]. The church forbids the use of antiretroviral treatment as well as the use of condoms. This therefore downplays the role of modern medical services since spiritually-related illness requires spiritual attention and treatment, that is, the cleansing by the Holy Spirit, holy water or healing rituals in the church. (p. 184)

In a study to explore the contribution of JMC's healing practices to pregnant mothers' health, Kutsira (2013) found that the majority of pregnant women decided to seek health care services at hospitals regardless of the punishment they would receive from their church leaders for breaching the church's doctrines (Kutsira 2013). The authors also argue that most of these churches are also led by men who may have patriarchal tendencies in terms of their governance. The unequal power and gender relations often put women in a difficult position, as they may be unable to negotiate with their partners for CHCT. These results were in agreement with the current study, which demonstrated deprivation of the right to access health care services by individuals in these

sectors. In unison with previous studies, this study suggests that as much as it is important for believers within these religious sects to live by their faith in matters of health, it is highly recommended that in the context of HIV, they make use of holistic approaches to healing that include visiting health care facilities.

Couple counselling and testing for HIV can be one of the mechanisms through which couples in stable relationships can receive support towards the PMTCT of HIV. However, this study found that the occurrence of extramarital affairs in stable relationships made it impossible for couples to maintain the practice of CHCT. The challenge was evident in situations where a woman fell pregnant from a married man or a man who was in another relationship. Interestingly, the results of this study showed a similar challenge of extramarital affairs, but they differed from previous studies in that men viewed CHCT as unhelpful because of the adverse results they experienced after testing, as this subsequently brought mistrust and instability into their marriages and relationships (Hannaford et al. 2020; Larsson et al. 2010). What could be learnt from these studies was that where extramarital affairs occurred, CHCT was not always given because of the negative social implications it had for marriages and the individuals involved. Based on these findings, it can be suggested that as much as CHCT is critical for PMTCT of HIV, health care workers should consider the dynamics that exist for the pregnant women in terms of their marital status or that of their partners, as not all women may be able to produce their partner. This will ensure that all pregnant single mothers get their desired health care services without having to explain about their private affairs.

Although the study revealed the obstacles that hindered the practice of CHCT, positive responses demonstrated the possibility of its success through the use of media and by engaging men in health-related organisations and initiatives that ran men's forums. The reasons for focusing specifically on men in an effort to mobilise CHCT and for HIV testing in general are well documented (Bwambale et al. 2008; Camlin et al. 2016; Hlongwa et al. 2020). The findings of this study concurred with previous studies that considered various ways of encouraging male-partner involvement in CHCT in their settings, such as actively engaging men in sensitising their fellow men, ensuring that health care facilities were less stigmatising and that they provided male-oriented services, as well as conducting dialogues among health care workers and community members (Larsson et al. 2010). This study suggests that while it is necessary to learn from other communities on measures that they are taking towards the utilisation of CHCT services, use of locally acceptable approaches can be an asset in increasing the utilisation of this service, especially in the PMTCT of HIV, treatment, care and support.

Conclusion

The study highlighted the influence of patriarchal behaviour in shaping HIV responses among couples. Societal norms

and practices that made it acceptable for men to have multiple sexual partners exposed women to HIV. This study challenged these patriarchal practices as they hindered the overall aim of PMTCT of HIV through CHCT. Another challenge that influenced full utilisation of CHCT was the stigmatisation of HIV. Stigmatisation of HIV has the potential of reversing the gains that could be achieved through identification, treatment and care of HIV-positive individuals. In this study, the use of awareness campaigns and other forms of education in communities were shown to be instrumental in increasing the uptake of CHCT. Hence, such methods could be used in interventions that were committed to challenging the patriarchal as well as religious norms that hindered the uptake of health care services and CHCT in particular.

Acknowledgements

Sections in this article represent a substantial reworking of Chibango, V., 2018, 'Male partner involvement in the prevention of mother-to-child transmission (PMTCT) of HIV: A mixed methods study of the Gokwe North District, Zimbabwe', PhD thesis, University of KwaZulu-Natal, under supervision of Prof. Pranitha Maharaj, (Available from <https://researchspace.ukzn.ac.za/handle/10413/17937>).

Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.

Authors' contributions

V.C. was responsible for conceptualisation, writing of the literature review, methodology, data collection, analysis and the write-up of the article. C.P. supervised the work and critically reviewed the article.

Ethical considerations

This research followed the ethical procedures that were stipulated by the University of KwaZulu-Natal and the Medical Research Council of Zimbabwe. Informed consent was received from all participants. In reporting the findings, pseudonyms were used for anonymity and to respect confidentiality. Ethical approval was obtained from the Human and Social Sciences Research Ethics Committee, University of KwaZulu-Natal, 28 October 2014 (Ethical approval number: HSS/0003/014D).

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability

Data that support the findings of this study are available from the corresponding author, V.C., upon reasonable request.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

- Asante, E.A., 2000, *Gender and development theory, policy and practice through a feminist postmodern lens: A case study of CIDA's policies on women 1995–2000*, Queen's University, Kingston, ON.
- Bapolisi, W.A., Ferrari, G., Blampain, C., Makelele, J., Kono-Tange, L., Bisimwa, G. et al., 2020, 'Impact of a complex gender-transformative intervention on maternal and child health outcomes in the eastern Democratic Republic of Congo: Protocol of a longitudinal parallel mixed-methods study', *BMC Public Health* 20(1), 1–11. <https://doi.org/10.1186/s12889-019-8084-3>
- Bhushan, N.L., Golin, C.E., McGrath, N., Maman, S., Tsidy, M., Chimndozo, L. et al., 2019, 'The impact of HIV couple testing and counseling on social support among pregnant women and their partners in Lilongwe, Malawi: An observational study', *AIDS Care* 31(2), 199–206. <https://doi.org/10.1080/09540121.2018.1510102>
- Boniphace, M., Matovelo, D., Laisser, R., Swai, H., Yohani, V., Tinka, S. et al., 2021, 'Men perspectives on attending antenatal care visits with their pregnant partners in Misungwi district, rural Tanzania: A qualitative study', *BMC Pregnancy and Childbirth* 21(1), 1–8. <https://doi.org/10.1186/s12884-021-03585-z>
- Boyce, C. & Neale, P., 2006, *Conducting in-depth interviews: A guide for designing and conducting in-depth interviews for evaluation input*, Pathfinder International, Watertown, MA.
- Bwambale, F.M., Ssali, S.N., Byaruhanga, S., Kalyango, J.N. & Karamagi, C.A., 2008, 'Voluntary HIV counselling and testing among men in rural western Uganda: Implications for HIV prevention', *BMC Public Health* 8(1), 1–12. <https://doi.org/10.1186/1471-2458-8-263>
- Camlin, C.S., Ssemmondo, E., Chamie, G., El Ayadi, A.M., Kwarisiima, D., Sang, N. et al., 2016, 'Men "missing" from population-based HIV testing: Insights from qualitative research', *AIDS Care* 28(sup3), 67–73. <https://doi.org/10.1080/09540121.2016.1164806>
- Carey, M.P., Senn, T.E., Seward, D.X. & Vanable, P.A., 2010, 'Urban African-American men speak out on sexual partner concurrency: Findings from a qualitative study', *AIDS and Behaviour* 14(1), 38–47. <https://doi.org/10.1007/s10461-008-9406-0>
- Chemaitelly, H., Awad, S.F., Shelton, J.D. & Abu-Raddad, L.J., 2014, 'Sources of HIV incidence among stable couples in sub-Saharan Africa', *Journal of the International AIDS Society* 17(1), 18765. <https://doi.org/10.7448/IAS.17.1.18765>
- Chemaitelly, H., Shelton, J.D., Hallett, T.B. & Abu-Raddad, L.J., 2013, 'Only a fraction of new HIV infections occur within identifiable stable discordant couples in sub-Saharan Africa', *AIDS* 27(2), 251–260. <https://doi.org/10.1097/QAD.0b013e32835ad459>
- Crankshaw, T.L., Mindry, D., Munthree, C., Letsoalo, T. & Maharaj, P., 2014, 'Challenges with couples, serodiscordance and HIV disclosure: Healthcare provider perspectives on delivering safer conception services for HIV-affected couples, South Africa', *Journal of the International AIDS Society* 17(1), 18832. <https://doi.org/10.7448/IAS.17.1.18832>
- Creswell, J.W. & Poth, C.N., 2016, *Qualitative inquiry and research design: Choosing among five approaches*, Sage, Thousand Oaks, CA.
- Davey, D.J. & Wall, K.M., 2017, 'Need to include couples' HIV counselling and testing as a strategy to improve HIV partner notification services', *AIDS (London, England)* 31(17), 2435. <https://doi.org/10.1097/QAD.0000000000001632>
- De Walque, D., 2007, 'Sero-discordant couples in five African countries: Implications for prevention strategies', *Population and Development Review* 33(3), 501–523. <https://doi.org/10.1111/j.1728-4457.2007.00182.x>
- Dube, S., Juru, T., Magure, T., Shambira, G., Gombe, N.T. & Tshimanga, M., 2017, 'Trend analysis of HIV testing services in Zimbabwe, 2007–2016: A secondary dataset analysis', *Open Journal of Epidemiology* 7(3), 285–297. <https://doi.org/10.4236/ojepi.2017.73023>
- Fleming, P.J., DiClemente, R.J. & Barrington, C., 2016, 'Masculinity and HIV: Dimensions of masculine norms that contribute to men's HIV-related sexual behaviors', *AIDS and Behaviour* 20(4), 788–798. <https://doi.org/10.1007/s10461-015-1264-y>
- Gender Links (GL), 2019, *Gender and governance – Gokwe North Rural District Council COE*, viewed 21 August 2021, from <https://genderlinks.org.za/home-page-blocks/gender-and-governance/gokwe-north-rdc-coe/>.
- Hailemariam, T.G., Nathan, S., Seifu, C.N. & Rawstorne, P., 2020, 'Uptake of couples HIV testing and counselling among heterosexual couples in Sub-Saharan Africa: A systematic review and meta-analysis', *AIDS Care* 32(2), 137–147. <https://doi.org/10.1080/09540121.2019.1619667>
- Hannaford, A., Lim, J., Moll, A.P., Khoza, B. & Shenoi, S.V., 2020, 'PreP should be for men only': Young heterosexual men's views on PreP in rural South Africa', *Global Public Health* 15(9), 1337–1348. <https://doi.org/10.1080/17441692.2020.1744680>
- Helms, C.B., Turan, J.M., Atkins, G., Kempf, M.-C., Clay, O.J., Raper, J.L. et al., 2017, 'Interpersonal mechanisms contributing to the association between HIV-related internalized stigma and medication adherence', *AIDS and Behaviour* 21(1), 238–247. <https://doi.org/10.1007/s10461-016-1320-2>
- Hlongwa, M., Mashamba-Thompson, T., Makhunga, S. & Hlongwana, K., 2020, 'Barriers to HIV testing uptake among men in sub-Saharan Africa: A scoping review', *African Journal of AIDS Research* 19(1), 13–23. <https://doi.org/10.2989/16085906.2020.1725071>
- Hughes, C.S., Brown, J., Murombedzi, C., Chirenda, T., Chareka, G., Mhlanga, F. et al., 2020, 'Estimated costs for the delivery of safer conception strategies for HIV-discordant couples in Zimbabwe: A cost analysis', *BMC Health Services Research* 20(1), 940. <https://doi.org/10.1186/s12913-020-05784-4>
- Kelley, A.L., Karita, E., Sullivan, P.S., Katangula, F., Chomba, E., Carael, M. et al., 2011, 'Knowledge and perceptions of couples' voluntary counseling and testing in urban Rwanda and Zambia: A cross-sectional household survey', *PLoS One* 6(5), e19573. <https://doi.org/10.1371/journal.pone.0019573>
- Kitzinger, J., 1995, 'Qualitative research. Introducing focus groups', *BMJ: British Medical Journal* 311(7000), 299. <https://doi.org/10.1136/bmj.311.7000.299>
- Krakowiak, D., Kinuthia, J., Osoti, A.O., Asila, V., Gone, M.A., Mark, J. et al., 2016, 'Home-based HIV testing among pregnant couples increases partner testing and identification of serodiscordant partnerships', *Journal of Acquired Immune Deficiency Syndromes (1999)* 72(Suppl 2), S167. <https://doi.org/10.1097/QAI.0000000000001053>
- Kululanga, L.I., Sundby, J. & Chirwa, E., 2011, 'Striving to promote male involvement in maternal health care in rural and urban settings in Malawi – A qualitative study', *Reproductive Health* 8(1), 1–12. <https://doi.org/10.1186/1742-4755-8-36>
- Kutsira, J., 2013, 'A gendered analysis of the healing practices of the Johane Marange Apostolic Church in Glenview, Zimbabwe and their effect on women during pregnancy', doctoral thesis, University of KwaZulu-Natal.
- Kwena, Z., Kimbo, L., Darbes, L.A., Hatcher, A.M., Helova, A., Owino, G. et al., 2021, 'Testing strategies for couple engagement in prevention of mother-to-child transmission of HIV and family health in Kenya: Study protocol for a randomized controlled trial', *Trials* 22(1), 1–16. <https://doi.org/10.1186/s13063-020-04956-1>
- Larsson, E.C., Thorson, A., Nsabagasani, X., Namusoko, S., Popenoe, R. & Ekström, A.M., 2010, 'Mistrust in marriage – Reasons why men do not accept couple HIV testing during antenatal care – A qualitative study in eastern Uganda', *BMC Public Health* 10(1), 1–9. <https://doi.org/10.1186/1471-2458-10-769>
- Lolekha, R., Kullerk, N., Wolfe, M.I., Klumthanom, K., Singhagowin, T., Pattanasin, S. et al., 2014, 'Assessment of a couples HIV counselling and testing program for pregnant women and their partners in antenatal care (ANC) in 7 provinces, Thailand', *BMC International Health and Human Rights* 14(1), 1–10. <https://doi.org/10.1186/s12914-014-0039-2>
- Madiba, S. & Ngwenya, N., 2017, 'Cultural practices, gender inequality and inconsistent condom use increase vulnerability to HIV infection: Narratives from married and cohabiting women in rural communities in Mpumalanga province, South Africa', *Global Health Action* 10(sup2), 1341597. <https://doi.org/10.1080/16549716.2017.1341597>
- Makoni, A., Chemhuru, M., Chimbetete, C., Gombe, N., Mungati, M., Bangure, D. et al., 2016, 'Factors associated with male involvement in the prevention of mother to child transmission of HIV, Midlands Province, Zimbabwe, 2015 – A case control study', *BMC Public Health* 16(1), 1–9. <https://doi.org/10.1186/s12889-016-2939-7>
- Maman, S., Van Rooyen, H. & Groves, A.K., 2014, 'HIV status disclosure to families for social support in South Africa (NIMH Project Accept/HPTN 043)', *AIDS Care* 26(2), 226–232. <https://doi.org/10.1080/09540121.2013.819400>
- McMahon, J.M., Chiment, R., Trabold, N., Fedor, T., Mittal, M. & Tortu, S., 2017, 'Risk of intimate partner violence and relationship conflict following couple-based HIV prevention counseling: Results from the Harlem River Couples Project', *Journal of Interpersonal Violence* 32(24), 3709–3734. <https://doi.org/10.1177/0886260515600878>
- Morrell, R., Jewkes, R. & Lindegger, G., 2012, 'Hegemonic masculinity/masculinities in South Africa: Culture, power, and gender politics', *Men and Masculinities* 15(1), 11–30. <https://doi.org/10.1177/1097184X12438001>
- Moser, C., 1993, *Gender planning and development*, Routledge, London.
- Muijeen, K., Kongvattananon, P. & Somprasert, C., 2020, 'The key success factors in focus group discussions with the elderly for novice researchers: A review', *Journal of Health Research* 34(4), 359–371. <https://doi.org/10.1108/JHR-05-2019-0114>
- Musarandega, R., Robinson, J., Sen, P.D., Hakobyan, A., Mushavi, A., Mahomva, A. et al., 2020, 'Using the critical path method to rollout and optimise new PMTCT guidelines to eliminate mother-to-child transmission of HIV in Zimbabwe: A descriptive analysis', *BMC Health Services Research* 20(1), 1–11. <https://doi.org/10.1186/s12913-020-05900-4>
- Museveni, J., 2017, 'The African Independent Apostolic Church's Doctrine under threat: The emerging power of faith-based organisations' interventions and the Johanne Marange Apostolic Church in Zimbabwe', *Journal for the Study of Religion* 30(2), 178–206. <https://doi.org/10.17159/2413-3027/2017/v30n2a8>
- Naidoo, D., Taylor, M. & Mabaso, M., 2016, 'Gender power inequalities in the context of HIV/AIDS among South African Indians in an urban setting in KwaZulu-Natal, South Africa', *BAOJ HIV* 2, 017. <https://doi.org/10.24947/baojh/2/3/117>
- Nakiire, L., Kabwama, S., Majwala, R., Bbale, J.K., Makumbi, I., Kalyango, J. et al., 2020, 'Factors associated with utilisation of couple HIV counselling and testing among HIV-positive adults in Kyoga Fishing Community Uganda, May 2017: Cross sectional study', *AIDS and Behavior* 24(10), 2935–2941. <https://doi.org/10.1007/s10461-020-02844-y>
- Ncitakalo, N., Mabaso, M., Joska, J. & Simbayi, L., 2021, 'Factors associated with external HIV-related stigma and psychological distress among people living with HIV in South Africa', *SSM-Population Health* 14, 100809. <https://doi.org/10.1016/j.ssmph.2021.100809>
- Njau, B., Watt, M., Ostermann, J., Manongi, R. & Sikkema, K., 2012, 'Perceived acceptability of home-based couples voluntary HIV counseling and testing in Northern Tanzania', *AIDS Care* 24(4), 413–419. <https://doi.org/10.1080/09540121.2011.608796>
- Parpart, J.L., Connelly, J.L. & Barriteau, P., 2000, *Theoretical perspectives on gender and development*, International Development Research Centre, Ottawa, ON.
- Ramirez-Ferrero, E. & Lusti-Narasimhan, M., 2012, 'The role of men as partners and fathers in the prevention of mother-to-child transmission of HIV and in the promotion of sexual and reproductive health', *Reproductive Health Matters* 20(sup39), 103–109. [https://doi.org/10.1016/S0968-8080\(12\)39642-0](https://doi.org/10.1016/S0968-8080(12)39642-0)

- Ratele, K., 2014, 'Currents against gender transformation of South African men: Relocating marginality to the centre of research and theory of masculinities', *NORMA: International Journal for Masculinity Studies* 9(1), 30–44. <https://doi.org/10.1080/18902138.2014.892285>
- Ratele, K., 2015, 'Working through resistance in engaging boys and men towards gender equality and progressive masculinities', *Culture, Health & Sexuality* 17(sup2), 144–158. <https://doi.org/10.1080/13691058.2015.1048527>
- Rosenberg, N.E., Mtande, T.K., Saidi, F., Stanley, C., Jere, E., Paile, L. et al., 2015, 'Recruiting male partners for couple HIV testing and counselling in Malawi's option B+ programme: An unblinded randomised controlled trial', *The Lancet HIV* 2(11), e483–e491. [https://doi.org/10.1016/S2352-3018\(15\)00182-4](https://doi.org/10.1016/S2352-3018(15)00182-4)
- Sibanda, E.L., Tumushime, M., Mufuka, J., Mavedzenge, S.N., Gudukeya, S., Bautista-Arredondo, S. et al., 2017, 'Effect of non-monetary incentives on uptake of couples' counselling and testing among clients attending mobile HIV services in rural Zimbabwe: A cluster-randomised trial', *The Lancet Global Health* 5(9), e907–e915. [https://doi.org/10.1016/S2214-109X\(17\)30296-6](https://doi.org/10.1016/S2214-109X(17)30296-6)
- Sweeney, S.M. & Venable, P.A., 2016, 'The association of HIV-related stigma to HIV medication adherence: A systematic review and synthesis of the literature', *AIDS and Behavior* 20(1), 29–50. <https://doi.org/10.1007/s10461-015-1164-1>
- Theuring, S., Jefferys, L.F., Nchimbi, P., Mbezi, P. & Sewangi, J., 2016, 'Increasing partner attendance in antenatal care and HIV testing services: Comparable outcomes using written versus verbal invitations in an urban facility-based controlled intervention trial in Mbeya, Tanzania', *PLoS One* 11(4), e0152734. <https://doi.org/10.1371/journal.pone.0152734>
- Thirumurthy, H., Masters, S.H., Mavedzenge, S.N., Maman, S., Omanga, E. & Agot, K., 2016, 'Promoting male partner HIV testing and safer sexual decision making through secondary distribution of self-tests by HIV-negative female sex workers and women receiving antenatal and post-partum care in Kenya: A cohort study', *The Lancet HIV* 3(6), e266–e274. [https://doi.org/10.1016/S2352-3018\(16\)00041-2](https://doi.org/10.1016/S2352-3018(16)00041-2)
- Tolhurst, R., Leach, B., Price, J., Robinson, J., Ettore, E., Scott-Samuel, A. et al., 2012, 'Intersectionality and gender mainstreaming in international health: Using a feminist participatory action research process to analyse voices and debates from the global south and north', *Social Science & Medicine* 74(11), 1825–1832. <https://doi.org/10.1016/j.socscimed.2011.08.025>
- Turan, B., Smith, W., Cohen, M.H., Wilson, T.E., Adimora, A.A., Merenstein, D. et al., 2016, 'Mechanisms for the negative effects of internalized HIV-related stigma on antiretroviral therapy adherence in women: The mediating roles of social isolation and depression', *Journal of Acquired Immune Deficiency Syndromes (1999)* 72(2), 198. <https://doi.org/10.1097/QAI.0000000000000948>
- Turan, B., Stringer, K.L., Onono, M., Bukusi, E.A., Weiser, S.D., Cohen, C.R. et al., 2014, 'Linkage to HIV care, postpartum depression, and HIV-related stigma in newly diagnosed pregnant women living with HIV in Kenya: A longitudinal observational study', *BMC Pregnancy and Childbirth* 14(1), 1–10. <https://doi.org/10.1186/s12884-014-0400-4>
- United Nations Programme on HIV/AIDS (UNAIDS), 2020, *UNAIDS data 2020*, Joint United Nations Programme on HIV and AIDS, Geneva, viewed 29 November 2021, from <https://www.unaids.org/en/resources/documents/2019/2019-UNAIDS-data>.
- Wamoyi, J., Renju, J., Moshabela, M., McLean, E., Nyato, D., Mbata, D. et al., 2017, 'Understanding the relationship between couple dynamics and engagement with HIV care services: Insights from a qualitative study in Eastern and Southern Africa', *Sexually Transmitted Infections* 93(Suppl 3), e052976. <https://doi.org/10.1136/sextrans-2016-052976>
- World Health Organization (WHO), 2009, *Integrating gender into HIV/AIDS programmes in the health sector: Tool to improve responsiveness to women's needs*, World Health Organization, Geneva.
- World Health Organization (WHO), 2012, *Guidance on couples HIV testing and counselling including antiretroviral therapy for treatment and prevention in serodiscordant couples*, World Health Organization, Geneva.
- Zhang, Y., Li, X., Qiao, S., Zhou, Y. & Shen, Z., 2020, 'Antiretroviral therapy (ART)-related knowledge seeking among people living with HIV (PLHIV) in China: Role of information & communication technology (ICT)', *Libri* 70(3), 197–211. <https://doi.org/10.1515/libri-2019-0144>
- Zimbabwe National AIDS Council, 2017, *Zimbabwe HIV and AIDS strategy for the informal economy 2017 – 2020*, Zimbabwe National AIDS Council, Harare, viewed from https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/---sro-harare/documents/publication/wcms_619882.pdf.