Young Masculinities and Sexual Health in Southern Africa

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Chapter 5

Masculine norms and sexual health implications for young men in Zimbabwe

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5 Masculine norms and sexual health implications for young men in Zimbabwe

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Introduction

Masculine expectations and inequitable and hegemonic gender norms are often deeply embedded in African cultures and encourage men into patriarchal roles in which wives, partners and daughters are viewed as the 'possession' of men (UNAIDS, 2022). These hegemonic gender norms legitimise the power of men over women, and striving to meet these societal masculine expectations can result in men engaging in risky sexual behaviour (Chetty-Makkan et al., 2021; Chimbiri, 2007; Harrison et al., 2006; Skovdal et al., 2011a). Studies have shown that men in sub-Saharan Africa (SSA) often engage in concurrent and multiple sexual partnerships, impulsive sexual behaviour (Chetty-Makkan et al., 2021), and have a lower uptake of prevention methods compared to women (Harrison et al., 2006; Hlongwa et al., 2020).

Despite this being observed in men of all ages, adolescent boys and young men (ABYM) are often overlooked in prevention programmes focussing on sexual health (Mantell et al., 2020). Previous research that focused on ABYM found that societal expectations of masculinity contribute to engagement in early and unprotected sex and act as a barrier to seeking medical help (Galdas et al., 2005; Yousaf et al., 2015), negatively impacting both the sexual health of ABYM and their potential sexual partners (Amin et al., 2018). Given that adolescence is a crucial period for shaping behavioural patterns (Woog & Kagesten, 2017), it is important to introduce positive attitudes and behaviours related to sexual health, engage with prevention services and understand the risk of acquiring HIV during this period (Makusha & Gittings, 2024).

In countries within SSA where HIV remains a significant public health concern, gender norms and risky sexual behaviours have been linked to an increased risk of acquiring HIV and other sexually transmitted diseases (STD) (Chetty-Makkan et al., 2021; Fleming et al., 2016; Gottert et al., 2018; Harrison et al., 2006; Rhead et al., 2019; Sileo et al., 2019; Skovdal et al., 2011a). It is crucial to target men in heterosexual relationships within this context when promoting safer (sexual) behaviours (Fritz et al., 2011), as men are often seen as the decision-makers when it comes to sexual and reproductive health, as

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mentioned previously (Chetty-Makkan et al., 2021; Chimbiri, 2007; Hargreaves et al., 2016; Harrison et al., 2006; Skovdal et al., 2011a). Therefore, understanding the association between masculine social norms and sexual health, particularly in young men, is essential for developing effective prevention programmes aimed at reducing sexual risk behaviour and the risk of HIV transmission.

Research on the associations between masculine norms and sexual health has been limited. Existing studies are primarily qualitative (Fleming et al., 2016; Harrison et al., 2006; Leddy et al., 2021; Skovdal et al., 2011a, 2011b), small-scale (Gottert et al., 2020; Sileo et al., 2021) and exploratory (Hlongwa et al., 2020), with few studies focussing on young men (Chetty-Makkan et al., 2021; Pleck et al., 1993). Additionally, while studies have measured masculine social norms using a variety of scales, it has been challenging to determine which specific aspects of masculinity contribute to men's engagement in high-risk sexual behaviours (Fleming et al., 2016). This is problematic, as conducting quantitative measurements of masculine norms in general population surveys could yield valuable insights into their prevalence and changes over time. Quantitative assessments help us to understand the associations between different dimensions of masculine social norms, sexual risk behaviour and the use of HIV prevention services. This information could be instrumental in developing and evaluating interventions for HIV control. Furthermore, quantitative scales may provide insights applicable beyond the HIV context and could serve as a foundation for exploring the impact of masculine norms on a range of other sexual and health-related issues.

The Manicaland Research Programme on Masculinities in an HIV Context

The Manicaland HIV/STD Prevention Project is a major open-cohort general population survey that provides data on sociodemographic factors, sexual risk behaviour, HIV service use and the dynamics and impact of HIV in Manicaland, a province in eastern Zimbabwe. The project has been running since the early 1990s, and data have been collected over nine survey rounds (http://www.manicalandhivproject.org). Over these rounds, questionnaires were conducted using face-to-face or telephone interviews.

This chapter will build on nearly two decades of research on masculinities in Manicaland, using data from the Manicaland Project, which has resulted in the development of a four-dimensional model to measure masculine social norms and their associations with sexual risk behaviour and the use of HIV services in men aged 15–54 years (Rhead et al., 2019). The four dimensions identified and introduced by Rhead et al. include 1. *toughness*, 2. *antifemininity*, 3. *sex drive*, and 4. *social status*. We will provide a detailed explanation of these dimensions and how the model came to be. We will present an updated version of Rhead et al.'s model, one that builds on and addresses limitations to the earlier approach, such as an unequal number of questions measuring each

dimension of masculine social norms, reviewed and revised survey questions, a change in the study population, and the availability of new rounds of Manicaland study data. Finally, we will apply the updated model and study the associations between the four dimensions of masculine norms and 1. *sociodemographic factors*, 2. *sexual risk behaviour and being in the priority population in need of HIV prevention*, and 3. *the use of HIV prevention methods and services* in young men aged 15–29 years from Manicaland. At this point, we do want to emphasise that in this chapter we will focus on cis-gender identities and cis-masculinities, as we have currently not explored other forms of masculinities, although we do want to recognise the specific health challenges faced by transmen or transwomen.

The start: A surprising qualitative study

Although the Manicaland project has always paid attention to gender differences, its programme on masculinities gained momentum after a 2010 qualitative study into people's experiences of antiretroviral treatment (ART). The study involved interviews with many different stakeholders, both male and female individuals living with HIV and on ART, caregivers of people living with HIV, as well as health care workers. None of the topic guides asked questions about gender norms or men's unique experiences of engaging with HIV treatment services, yet, all participants, in different ways and to different degrees, had something to say about the unique challenges facing men as a result of local understandings of what it means to be a 'real man'. The narrative around how male gender norms in different ways obstruct men's engagement with HIV treatment services dominated the interviews, much to our surprise. The qualitative work highlighted different dimensions of male gender norms that appeared to shape engagement with HIV treatment services but could not ascertain their varying effects and strengths. This, first and foremost, led to the publication of two peer-reviewed articles (Skovdal et al., 2011a, 2011b) but also spearheaded discussions around how some of the issues raised in the qualitative work could be captured and measured in the Manicaland project's population cohort survey. This led to the formulation of a series of questions that were subsequently included in the Manicaland survey (see Table 5.1).

The four-dimensional model of masculine norms by Rhead et al. (2019)

Following the survey, a team at the Manicaland Centre worked together to develop a four-dimensional model of masculine norms, a model that both took inspiration from existing measurements of masculine social norms and drew on data on masculine norms that came from the Manicaland General Population Survey Round 6 (2012–2013). The model consists of four dimensions of masculine norms, which resonate with the qualitative work and the questions included in the population survey. They are defined as follows (Rhead et al., 2019, p. 538):

1 *Toughness* – How a man perceives his physical resilience and strengths.
2 *Antifemininity* – How a man distances himself from feminine roles and spaces.
3 *Sex drive* – How a man expresses his sexuality in the context of HIV.
4 *Social status* – How a man deals with associations with HIV within his community.

The wording for the dimensions of 'toughness', 'antifemininity' and 'social status' was adopted from Thompson and Pleck's (1986) study. The 'sex drive' dimension was adopted from a study by Luyt (2005).

In the exploration of the associations between these dimensions, sexual risk behaviour and the use of HIV prevention services, Rhead et al. (2019) found no associations between masculine norms and sexual risk behaviour. However, the study did find several associations between sociodemographic factors and the four dimensions of masculine social norms. Furthermore, HIV-negative men with more conservative views on antifemininity and sex drive norms were more likely to take preventive measures to avoid HIV in comparison to those with more progressive views on these dimensions. Men with conservative views on the social status dimension were less likely to have undergone testing for HIV in the past three years. One of the main conclusions from Rhead et al.'s

Table 5.1 Survey questions measuring the four dimensions of masculine social norms ⏎

Masculine social norm	*Survey question*
Toughness	'Men are strong and therefore less likely to need a doctor Minor illnesses can be fought off if you don't give in to it There is no need to go and see a doctor unless you are very ill A man who goes to the hospital is considered weak'
Antifemininity	'Men who take sick children to the hospital or cook at home should be proud of what they do'[a] 'A man should not go with his partner for antenatal check-ups at the local clinic It is appropriate for a woman to be the primary breadwinner of a household'[a] 'A man gains respect if he goes for regular health checks'[a]
Sex drive	'Men have a sex drive that needs to be satisfied Men are always ready for sex A real man enjoys a bit of risk taking now and then Men feel comfortable going to the hospital and have no problems seeking help'[a]
Social status	'A man will lose respect if he admits to being sick It is important for a man living with HIV to be on anti-retroviral therapy'[a] 'Men should have had several sexual partners before they get married Men get embarrassed if a brother is found to be HIV positive'

Note: Questions with an asterisk
[a] were recoded to ensure all questions were coded in the same direction.

(2019) research aligns with Skovdal and colleagues' finding that masculinity is multidimensional, with different strengths and effects (Skovdal et al., 2011a). The study shows that the four masculine norms varied in their associations with HIV-related outcomes and that sociodemographic factors play varying roles in shaping the different dimensions of masculine social norms.

However, some of the findings from this study were unexpected and seemed counterintuitive to the team. While developing this model and considering earlier qualitative work, we expected to find associations between sexual risk behaviour and masculine social norms, especially for the norm related to sex drive. As a result, the team decided to review the survey questions, add extra questions to the questionnaire and rephrase some of the questions in the questionnaire in an attempt to improve the sensitivity of the survey to capture masculine social norms.

Therefore, the latter part of this chapter focuses on updating the initial model and validating this new four-dimensional model of masculine social norms. Additionally, we will use this new model and study the associations between the four dimensions of masculine norms and 1. *sociodemographic factors*, 2. *sexual risk behaviour and being in the priority population in need of HIV prevention*, and 3. *the use of HIV prevention methods and services* in young HIV-negative men aged 15–29 years from Manicaland.

Updating and validating the four-dimensional model of masculine social norms

Rhead et al.'s model of masculine norms demonstrated an excellent goodness-of-fit, indicating that the observed questionnaire data aligned well with the expected data under the model. The fit statistics for Rhead et al.'s (2019) model can be found in their supplementary materials. Fit statistics can be used to identify any differences between the data and the model itself (Kéry & Royle, 2016). The model also showed to be metric invariant across age and residential type, indicating its robustness in measuring the four dimensions of masculine norms across different groups. One limitation of the model by Rhead et al., as noted in the study, was that different dimensions of masculine social norms were assessed using a different number of questions, with some dimensions measured with three dichotomous questionnaire items and others with four. Having the same number of questions measuring each dimension can enhance model stability, comparability between dimensions, reliability in measuring the latent construct, and interpretability (Byrne, 2016; Kline, 2016).

As mentioned in the study by Kline (2016), updating and recalibrating existing models is preferred over developing an entirely new model. Therefore, Rhead et al.'s original model and approach were utilised to create a new four-dimensional model of masculine social norms and to calibrate it with new data. Various reasons for this update have been mentioned previously, such as reviewing and revising the survey questions, adding additional questions to measure masculine social norms and ensuring an equal number of questions for each dimension of the model. Additional reasons for updating the model included a slight change in the study population due to the inclusion of

additional urban sites, as well as the availability of new rounds of Manicaland study data. Although the new model has been tested on individuals of all ages and genders, this chapter will only focus on its application in younger men.

Methodologies

Confirmatory factor analysis (CFA), a type of structural equation modelling (SEM) (Alavi et al., 2020), was used to test the updated model of masculine social norms. CFA models are used to test relationships between a set of observed variables (in this case, questionnaire questions) and an underlying latent construct (the four dimensions of masculine social norms). The new version of the multidimensional model of masculine norms was initially tested with Manicaland Round 7 (2018–2019) data and subsequently tested with Manicaland Round 8 (2021) and Round 9 (2022–2023) data to confirm its applicability across all rounds.

All questionnaire questions were coded in the same direction, with responses indicating a 'masculine' direction (agreeing/disagreeing) coded as 1 and those indicating a 'non-masculine' direction (agreeing/disagreeing) coded as 0. Each of the four dimensions of masculine norms was combined into a continuous latent variable, consisting of the sum of four questionnaire questions and reflecting the extent to which each participant endorsed each masculine social norm. For the outcomes presented later in this chapter, each continuous dimensional score was dichotomised, resulting in four binary measures. Both the continuous and binary measures can be used to interpret results; however, because we believe the binary outcomes to be more intuitive, we decided to use the binary measures for this chapter. Lower scores align with more progressive views on each dimension of masculine social norms, and higher scores are associated with more conservative views. For example, a high score on the toughness dimension reflects endorsement of more traditional notions of how a man should be perceived: strong and physically resilient.

The final multidimensional model of masculine social norms by Bagnay et al.

The revised model of masculine social norms, developed by the authors of this chapter, includes an equal number of questions across all four earlier established dimensions. Each dimension is measured by a four-point scale, and in this analysis, giving two or more masculine responses would result in being categorised in the group with more conservative views. Our final model showed excellent goodness-of-fit across the three study rounds, ensuring consistency in measuring the same outcomes within different age and site type groups. The specific questionnaire items used to measure each dimension within this final revised four-dimensional model measuring masculine social norms can be found in Table 5.1.

The four dimensions of masculine social norms and sexual health in young men in Zimbabwe

In the final part of this chapter, we apply the new model of masculine social norms to Round 7 data (2018–2019) to study the associations between the four dimensions of masculine norms and 1. *sociodemographic factors*, 2. *sexual risk behaviour and being in the priority population in need of HIV prevention*, and 3. *the use of HIV prevention methods and services* in HIV-negative young men aged 15–29 years. We will focus on some of the most important statistically significant outcomes and discuss their implications within the discussion section.

Methodologies

As mentioned previously, the four dimensions of masculine norms were dichotomised, and each dimension was recorded from a continuous to a binary scale measuring masculine norms. Young men with low scores were categorised as being more progressive, while those with high scores were classified as being more conservative.

The priority population in this study refers to sexually active HIV-negative young men who reported engaging in one or more sexual risk behaviour(s), making them a primary target for prevention programmes. The following sexual risk behaviours were used when calculating the priority population: 1. *Age-disparate sexual relationships* (10+ years age difference with any of the past three sexual partners); 2. *Transactional sex* (engaging in sex in exchange for something such as money or items with any of the past three sexual partners); 3. *Non-regular partnerships* (having one or more non-regular sexual partner(s) in the past twelve months); 4. *Multiple sexual partners* (having more than one sexual partner in the past twelve months); 5. *Concurrent sexual partners* (having more than one sexual partner at this moment).

Descriptive statistics were used to describe sociodemographic factors, individual sexual risk behaviours, being in the priority population in need of HIV prevention, and the use of HIV prevention methods. Multivariable logistic regression analysis was used to study all associations mentioned previously. Odds ratios were adjusted for age when measuring the associations between each dimension of masculine social norms and sexual risk behaviour and the use of HIV prevention methods. When measuring the association between being in the priority population in need of HIV prevention and each dimension of masculine social norms, odds ratios were adjusted for the sociodemographic factors that were found to be associated with each dimension. A p-value of ≤ 0.05 was set as statistically significant. For more information about the definition of study variables, statistical analyses, or additional study outcomes, feel free to contact the authors of this chapter.

Results

Masculine norms and sociodemographic factors

Several sociodemographic factors were found to be associated with high scores on each of the dimensions of masculine social norms. High scores relate to having a more conservative view of each dimension. Young men who reported being a member of a community group have more conservative views on toughness (Odds Ratio (OR): 2.14 [95% Confidence Interval (95% CI) 1.35–3.41]; *p*-value: <0.001), but less conservative views on antifemininity (OR: 0.58 [95% CI 0.37–0.91]; *p*-value: 0.02) compared to those who are not a member of any community group. Furthermore, we found that young men from the highest socioeconomic status quintile had lower odds (OR: 0.10 [95% CI 0.01–0.74]; *p*-value: 0.03) of scoring high on the sex drive norm compared to those from the lowest socioeconomic quintile.

When looking at residential areas, our data showed that young men from Manicaland living on agricultural estate compounds and in rural areas have lower odds (OR: 0.34 [95% CI 0.19–0.60]; *p*-value: <0.001/0.56 [95% CI 0.33–0.95]; *p*-value: 0.03) of scoring high on antifemininity compared to those residing in urban areas. Young men residing on major transport routes have higher odds of scoring high on social status (OR: 2.30 [95% CI 1.08–4.88]; *p*-value: 0.03).

When studying the associations between dimensions of masculine social norms and sociodemographic factors such as community group membership, place of residence and socioeconomic status, a complex picture emerges. Young men who are members of community groups are more likely to side with the view that men should be physically strong and can withstand disease compared to men who are not members of community groups. Yet, at the same time, men who are members of community groups express more progressive views on gender roles in the home, thus expressing more equitable views. Men from agricultural estates and rural areas are also more likely to express equitable views in this respect. However, when it comes to social status and place of residence, young men residing on major transport routes are more likely to be concerned about what other people think about them as men compared to men from urban areas. These findings highlight the multidimensionality of masculine social norms and their varying associations with sociodemographic factors.

Masculine norms, sexual risk behaviours and being in the priority population in need of HIV prevention

Several individual sexual risk behaviours were tested for their associations with each of the dimensions of masculine social norms. The findings show that conservative views on toughness were associated with higher odds of having one or more non-regular sexual partner(s) in the past 12 months (OR: 1.49 [95% CI 1.11–1.99]; *p*-value: <0.01), having multiple sexual partners in the past 12 months (OR: 1.46 [95% CI 1.05–2.03]; *p*-value: 0.02) and engaging in

transactional sex in their lifetime (1.49 [95% CI 1.02–2.19]; *p*-value: 0.04). Similarly, high scores on the sex drive dimension, indicating more conservative views, were found to be associated with engaging in transactional sex in their lifetime (OR: 1.56 [95% CI 1.01–2.42]; *p*-value: 0.04). Additionally, conservative views on social status were found to be associated with higher odds of having one or more non-regular sexual partner(s) in the past 12 months (OR: 1.39 [95% CI 1.05–1.85]; *p*-value: 0.02), engaging in transactional sex in their lifetime (OR: 1.58 [95% CI 1.10–1.25]; *p*-value: 0.01), engaging in transactional sex with any of the past three sexual partners (OR: 2.37 [95% CI 1.44–3.88]; *p*-value: <0.01) and experiencing STI symptoms in the past 12 months (OR: 2.54 [95% CI 1.27–5.07]; *p*-value: <0.01). Notably, no associations were found between the antifemininity dimension and individual sexual risk behaviours.

In addition to the individual sexual risk behaviours, a summary variable combining five high-risk behaviours was developed. The final dichotomous variable, as mentioned previously, measured whether young men belonged to the priority population and thus engaged in one or more sexual risk behaviour(s) in the past 12 months. The forest plot in Figure 5.1 illustrates the associations between high scores on the dimensions of masculine social norms and the odds of being in the priority population in need of HIV prevention. Young men with conservative views on toughness, sex drive and social status have significantly higher odds of being in the priority population (Toughness OR: 1.45 [95% CI 1.11–1.90]; *p*-value: <0.01/Sex drive OR: 1.55 [95% CI 1.14–2.10]; *p*-value: <0.01)/Social status OR: 1.44 [95% CI 1.09–1.90]; *p*-value: <0.01).

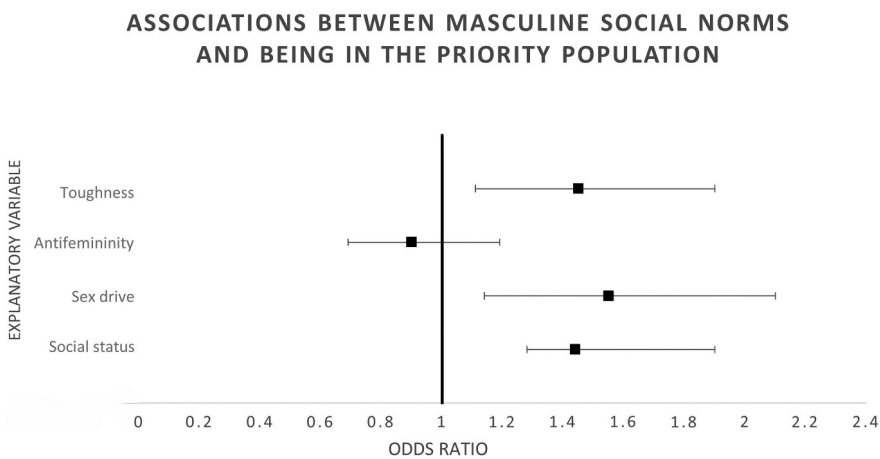

Figure 5.1 Forest plot showing the associations between the four dimensions of masculine social norms and being in the priority population in need of HIV prevention. The squares depict the associated (adjusted) Odds Ratios, and the horizontal lines show the 95% Confidence Intervals linked to these Odds Ratios. ⏎

These findings, again, show the multidimensional nature of male gender norms. Masculine norms are not singular but differ in strength and their association with sexual risk behaviours. Men who hold more conservative views on the toughness, sex drive and social status dimensions are more likely to engage in sexual risk behaviour(s). However, there seems to be no association between holding conservative views on antifemininity, and, thus, men believing they or other men should distance themselves from feminine roles and spaces, and engaging in risky sexual behaviour.

Masculine social norms and the use of HIV services

Within the sexually active HIV-negative population with high-risk sexual behaviour (priority population), we found significant associations between the use of HIV services and masculine social norms. Having high scores on the toughness and antifemininity dimensions were found to be associated with having lower odds of being tested for HIV in their lifetime (Toughness OR: 0.65 [95% CI 0.46–0.92]; *p*-value: 0.02/Antifemininity OR: 0.57 [95% CI 0.42–0.70]; *p*-value: <0.01) or within the past three years (Toughness OR: 0.72 [95% CI 0.54–0.98]; *p*-value: 0.03/Antifemininity OR: 0.60 [95% CI 0.45–0.81]; *p*-value: <0.010). This means that when men have more conservative ideas about the physical resilience of men, their ability to withstand disease, and the idea that men should distance themselves from feminine roles and spaces within households, they are less likely to use HIV testing services.

Discussion

In this chapter, we explored the associations between masculine social norms, sexual risk behaviour and the use of HIV services among young HIV-negative men in Manicaland, Zimbabwe. We have been building on a nearly two-decade-long research programme on masculinities in eastern Zimbabwe and presented an updated (binary) masculine social norms scale for measuring four dimensions of young masculinities. We first explained the process of developing, changing and validating this scale. This was followed by an exploration of how different masculine social norms affect the sexual risk behaviour and use of HIV services in varied and complex ways among young men in eastern Zimbabwe. Our research showed that socially constructed ideas of manhood influence health behaviours in young men, leading to sexual risk behaviours and avoidance of accessing critical HIV services, thus affecting the sexual health of young men.

Masculine social norms and sociodemographic factors

Several sociodemographic factors have been found to be associated with masculine social norms. The finding that community group members held more conservative views on the toughness dimension and less conservative views on

the antifemininity dimension partially supports Rhead et al.'s (2019) earlier outcome on the same subject. According to Rhead et al., community group participation was positively linked to high scores on all dimensions of masculine social norms. This aligns with Gregson et al.'s (2011) study in the same population in Manicaland, where community group membership was associated with negative social capital. Negative social capital relates to the pressure placed on individuals within these groups to strive to be part of the group, which may have negative consequences for them (Villalonga-Olives & Kawachi, 2017). Our findings suggest that community groups could serve as valuable entry points for addressing the negative aspects of masculine social norms and targeting these groups with intervention programmes.

Moreover, young men from the lowest socioeconomic quintile are more likely to score high on the sex drive dimension compared to those from the highest socioeconomic quintile. One explanation for this could be that men from lower socioeconomic quintiles have a higher need to prove their masculine nature and worth, one way being through sex, while other ways to claim power and respect may be lacking (Dery & Amoah, 2023; World Health Organization, 2010). This finding is also in line with a study by Domingue et al. (2019), which suggests that adolescent males who are surrounded by more masculine peers have lower educational and occupational achievements.

When relating residential areas to masculine norms, earlier studies found associations between spatial contexts and masculine attitudes. However, these studies suggest that this relationship depends on local social identities and educational levels of these areas, as stated by Silva (2022) in his study in the USA. Our data suggest that young men from rural areas and agricultural estate compounds tend to have more progressive views on antifemininity than those in urban areas. Although these areas are generally known to be poorer than urban areas, this finding suggests that men (and women) in these areas could be more inclined to take up non-stereotypical roles while trying to provide for their families. However, this is only a potential explanation and should be interpreted cautiously and studied in more depth.

Finally, young men living on major transport routes had higher odds of high scores on the social status dimension. This finding may be linked to the high presence of female sex workers near major transport routes in Africa, where male clients and truckers are more likely to acquire HIV compared to the general population and where many men report having transactional sex with non-regular sexual partners (Makhakhe et al., 2017; World Health Organization, 2011).

Masculine norms, sexual risk behaviours and being in the priority population in need of HIV prevention

Rhead et al.'s (2019) earlier study found no associations between masculine social norms and sexual risk behaviours in Manicaland. This study found associations, although varying in strength and direction. One possible explanation

for this difference could be the change in the study population due to the inclusion of urban study sites in later rounds. Alternatively, it could be due to adjustments made to the multidimensional model of masculine social norms. The latter seems more likely, as Rhead et al.'s model showed invariance across age and study sites, suggesting that adding sites should not influence the outcomes.

The findings of this chapter are consistent with Skovdal et al.'s (2011a) finding that it is expected and normal for men in this context to have multiple sexual partners and extramarital relationships. This societal expectation may pressure men to engage in high-risk sexual behaviours and conform to this idealised image of masculinity. These findings also align with other studies linking masculine social norms to sexual risk behaviours, but this is the first to establish this correlation within this context, focussing on young men and using the presented multidimensional model of masculine social norms.

Masculine social norms and the use of HIV services

This study found evidence that high scores on the toughness and antifemininity dimensions were associated with lower odds of being tested for HIV. This aligns with previous studies, where men holding antifeminine views believed that women should be the ones to get tested for HIV (Vincent et al., 2016).

Rhead et al.'s (2019) study also found that adherence to traditional social norms was associated with a lower probability of being tested for HIV. This indicates a link between the use of HIV services and adherence to masculine social norms and is also in line with Skovdal et al.'s (2011a) work, which suggested that men might avoid seeking treatment and hide their HIV status from their partners. Avoiding HIV testing could be a way for men to avoid treatment and hide their HIV status due to fear of a positive test outcome. Additionally, Skovdal and colleagues also found that men often perceive health centres as female spaces, which may contribute to their reluctance to undergo HIV testing (Skovdal et al., 2011a).

In summary, fear of acquiring HIV, as highlighted in Skovdal et al.'s (2011a) qualitative work, could lead to a sense of loss of control over a man's sexuality and may threaten their sense of manhood. Despite this fear, our quantitative data show that young men with conservative views on several dimensions of masculine social norms continue to engage in risky sexual behaviours and avoid seeking services. This suggests that the fear of contracting HIV may not outweigh the sexual needs and societal pressures faced by young men in this context. Skovdal and colleagues also highlighted the perception of health centres as female spaces and that, with the avoidance of testing in young men with conservative views, several dimensions pose challenges to this (Skovdal et al., 2011a). To address these issues mentioned above, prevention programmes need to specifically target these groups by providing suitable options, such as offering HIV self-testing for young males as an alternative to visiting health clinics.

The multidimensional model of masculine norms

The findings in this chapter emphasise the important association between the multidimensional concept of masculine norms and sexual health. The different dimensions of masculine norms in young men seem to vary in effect and strength, showing that masculinity is a fluid concept influenced by time and space. We found young men holding more conservative views on some gender norms and simultaneously holding more progressive views on others. This finding is similar to a study by Levtov et al. (2014), where results from the International Men and Gender Equality Survey (IMAGES) are presented. The authors describe the co-existence of conservative and liberal gender attitudes, stating that some men adhere to more traditional ideals around sexual conquest and toughness but can also support more gender-equal ideas, such as sharing responsibilities within households. This example highlights a tension between embracing traditional masculinities and, simultaneously, adapting to a more gender-equal world where the co-existence of these views can lead to conflicting behaviours. Ragonese et al. (2019) also explore this tension and provide a nuanced picture of masculinity, demonstrating that men can negotiate their roles in relationships and around sexual health. This finding highlights that the definition of a 'real man' is context-dependent and could be critically challenged when the right conditions are in place (Ragonese et al., 2019; Skovdal et al., 2011a), allowing men to actively shape masculinities in their lives. Future qualitative studies could focus more in-depth on this multidimensional nature of masculine social norms and investigate whether some of these norms may play a more significant role in shaping the behaviour of (young) men than others.

Despite the diverse and multidimensional nature of masculine social norms, our proposed model has shown its ability to capture this concept within a quantitative model. Implementing this scale in other multipurpose surveys could lead to a better understanding of masculine social norms and their varying strengths and effects. It could also potentially be very valuable in other settings and with other health-related outcomes. Therefore, future studies could validate this model in different contexts and adjust it for other health-related outcomes.

Strengths and limitations

Strengths of the quantitative part of this chapter include the large sample sizes, representative study sites and distinctive nature of the data, which allowed for the measurement of masculine social norms, sexual risk behaviours and the use of HIV services. However, both the study in this chapter and the study by Rhead et al. (2019) were cross-sectional, making it challenging to draw causal interference. It is difficult to establish whether conservative masculine norms result in sexual risk behaviour or vice versa. Additionally, the data on masculine social norms, sexual risk behaviour and the use of HIV services relied on self-reported data, which might lead to socially desirable answers. Informal

confidential voting interview (ICVI) methods were used to obtain valid information and reduce social desirability bias. Although ICVI methods (Gregson et al., 2004) have partially addressed this issue, there is a possibility that associations might be stronger or that there are associations that are currently not identified.

In addition to these strengths, the latter quantitative part of this study is based on Skovdal et al.'s (2011a) qualitative study, which provides a deeper context of the patterns observed in the quantitative data. Combining these methods allows for a deeper understanding of the associations between masculine social norms, sexual risk behaviour and the use of HIV services.

Policy implications

Changing the negative aspects of masculinity and gender norms can be challenging, as shown in a study by Rice et al. (2021). This is partly due to the fact that hegemonic masculinities can grant young men status and power. However, as mentioned previously, men can actively shape masculinities in their lives and challenge predominant masculinities. One approach to addressing the harmful effects of masculinities would be implementing programmes aimed at changing gender norms and addressing the undesirable aspects of male social norms and gender inequalities (Herreen et al., 2021; Ragonese et al., 2019) within these programmes. Similar programmes have been successful in comparable settings (Dworkin et al., 2013; UNICEF, 2022). It is important to pilot these interventions and conduct additional research to find out what works and does not work for men in this setting. Community groups could be used within these programmes as valuable starting points to address the unfavourable aspects of masculinity, as demonstrated in the study by Rhead et al. (2019) and the findings in this chapter, which have shown an association between conservative views on several dimensions of male social norms and community group membership.

As mentioned by Amin et al. (2018), addressing the adverse effects of masculinities in young men should involve empowering young women at the same time as it will not only improve their health but also contribute to the health of women and girls. It is worth mentioning that the negative aspects of masculine norms may also be linked to other health-related outcomes, indicating that targeting these negative aspects could have broader health benefits.

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