Exploring the Social Determinants of Mental Health for Young Adult Men-Having-Sex-With-Men in Zambia:

Findings from a Mixed-Methods Study

This research report was developed by HEARD, University of KwaZulu-Natal in Durban and the School of Public Health, Health Promotion and Education Department, University of Zambia in Lusaka. The research forms part of a larger, multi-country project “Linking Policy to Programming” which seeks to strengthen legal and policy environments for reducing HIV risk and improving the sexual and reproductive health of young key populations in Southern Africa. The project is implemented together with UNDP and African Men for Sexual Health and Rights (AMSHeR) and is funded by the Ministry of Foreign Affairs of the Kingdom of The Netherlands as part of their regional HIV and AIDS and SRHR programme in Southern Africa.

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HEALTH ECONOMICS AND HIV AND AIDS RESEARCH DIVISION
Working to advance health equity in Africa

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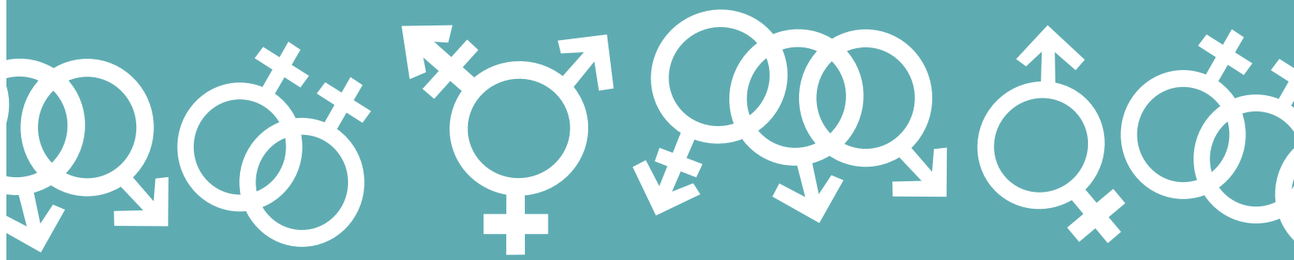

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List of acronyms and abbreviations

AIDS	Acquired immune deficiency syndrome
AUDIT	Alcohol Use Disorders Identification Test
CSO	Central Statistical Office
DUDIT	Drug Use Disorders Identification Test
CES-D-10	Center for Epidemiological Studies-Depression 10-item Scale
GAD-7	General Anxiety Disorder 7-item Scale
HIV	Human immune deficiency virus
LGBTI	Lesbian, gay, bisexual, transgender, intersex
MOH	Ministry of Health
MSM	Men having sex with men
NAC	National HIV/AIDS/STI/TB Council
NASF	National HIV/AIDS Strategic Framework
RHS-R	Reactions to Homosexuality Scale-Revised
SBQ-R	Suicide Behaviors Questionnaire-Revised
SD	Standard deviation
STI	Sexually transmitted infection
TB	Tuberculosis
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organisation
ZMW	Zambian Kwacha

Report Summary

Background

Under the National HIV/AIDS Strategic Framework 2017-2021 (NASF), Zambia has recognised gay men and other men-having-sex-with-men (MSM) as a priority population (amongst twelve others) for targeted HIV and other sexual health programming as part of its efforts to reduce new HIV infections and AIDS-related deaths. Although the country is now rolling-out sexual health interventions for all MSM, there is an absence of research to guide such efforts. Elsewhere, it is known that the sexual health of young MSM is strongly affected by mental health linked to the social environment. This mixed-methods study, one of the first to be approved in Zambia, explored these links using the Meyer (2003) *minority stress model* as its guide.

Methods

Participants were recruited via snow-ball sampling in five locations: Chipata, Kapiri Mposhi, Livingstone, Lusaka and Solwezi. Eligibility criteria included: being 18-24 years; sexual attraction to other males; and agreeing to recorded interviews. Following informed consent procedures, participants completed self-administered surveys probing relationship status, history of physical/sexual violence, and recent sexual experiences. Psychometric screening scales for depression, anxiety, suicidal ideation, and drug/alcohol use were included. Participants also sat for peer-led semi-structured interviews exploring sexual orientation, disclosure, experiences of daily living, mental health and coping mechanisms. Data analysis included thematic analysis, descriptive statistical analysis, and triangulation.

Results

A total of 56 participants (16 in Lusaka and 10 in each other location) completed the survey and 54 sat for interviews. Mean age was 22 years; 72% were unemployed or students; 95% expressed a primarily same-sex sexual attraction. Approximately one-half (50% and 48%) of participants showed symptoms of depression or anxiety (one third for both), and a similar proportion had contemplated suicide at least once in the past year. During interviews, participants expressed personal confidence about their sexual orientation but detailed complex processes for managing knowledge or perceptions about this, particularly to family or non-gay friends. Socio-environmental factors had a cross-cutting influence on mental distress. Constant verbal stigma or harassment (including bullying or public shaming), an ever present threat of violence, and constant anxiety of being suspected or discovered as gay or homosexual, particularly by parents or siblings, were among the more serious risks of this negative social context for young MSM.

The mental health consequences of these pressures were evident at this early stage of adulthood, if largely not acknowledged or understood as such by the individuals themselves (general knowledge about mental health is very limited in Zambia). For some, these pressures lead to additional challenges such as heavy alcohol use, self-doubt and social isolation which compounded mental or emotional distress. For many others, however, they relied on a wide range of positive strategies and behaviours geared towards recovery and resilience, such as confiding in gay/lesbian friends, belonging to social networks, self-care (enjoying hobbies or sports), and maintaining a positive outlook. None had considered using mental health services due to lack of knowledge that they existed, or for fear of inappropriate treatment, among other reasons.

On the links between mental and sexual health, the study was less conclusive. Participants had high rates of HIV testing (81% in past six months), knowledge of HIV status (91%), condom use during last anal sex (66%) and disclosure of HIV status during last sexual encounter (65%). One-half of participants (52%) had ever experienced sexual violence, one-third (36%) more than once. One-quarter (25%) had perpetuated sexual violence in the previous year. Participants rarely discussed such trends in interviews, however, meaning that a more comprehensive exploration of the significance of these data was not possible. However, the findings of this component of the study were limited due to potential bias in sample selection. Recruitment occurred through networks linked to an existing sexual health intervention for the study population meaning that study participants were likely more knowledgeable and more motivated to avoid high-risk sexual practices regardless of mental health or other factors.

Conclusion

The findings point towards adopting a socio-ecological approach for addressing the mental health concerns of the young participants as the challenges they face emanate from numerous individual, family, community and societal level factors. Interventions need to simultaneously address societal level issues, such as developing mental health systems that are responsive to the needs of the spectrum of diverse young people; dealing with institutional related matters, such as stigmatisation and exclusion at family and community level, or bullying and shaming in schools; and, at the same time, support and strengthen the coping, recovery and resilience mechanisms which many of the study participants have adopted, if not perfected. There is a further need, albeit more complex and longer term, to address structural factors, such as the legal environment and social-cultural and religious norms which, collectively, drive much of the sexual minority stress the participants experience.

Chapter 1
Introduction

Like a number of its neighbours in the southern African region, Zambian law criminalises same-sex sexual contact (National Alliance of State and Territorial AIDS Directors [NASTAD] Zambia, 2015). Moreover, closely held religious and socio-cultural values create a deep social divide regarding acknowledging or accepting individuals with same-sex emotional and physical desires (NASTAD Zambia, 2015; Phiri, 2017). While different sources attest to the presence of men-having-sex-with-men (MSM) and other sexual minorities in the country, very little research in any form has emerged (Armstrong and Zulu, 2019; Phiri, 2017).[1] Recently, this has begun to change, largely in the context of the country's efforts to address its HIV epidemic. The guiding policy document for this work, the National HIV/AIDS Strategic Framework 2017-2021 (NASF), has, for the first time, recognised the predominantly young population gay men and other MSM as a key population (amongst twelve others) for tailored HIV and other sexual health programming (National HIV/AIDS/STI/TB Council [NAC], 2017). And as these interventions expand across the country, including for young MSM, this gap is evidence is also starting to be addressed.

Research elsewhere in Africa is exploring the role of mental health for MSM populations and its influence on HIV-related sexual health, suggesting that understanding this link is important for the design of effective interventions. Ahenku et al. (2016), one of the first African studies to examine depression amongst MSM, used survey data collected in 2008 from a sample of 205 participants (median age 23) in two cities in Tanzania. They found that 46.3% was symptomatic for depression and that this was associated with HIV risk (condomless, receptive anal sex and high numbers of sexual partners), and having experienced verbal, physical or sexual abuse. Anderson et al. (2015), using the same data set, explored further the types and frequency of abuse (verbal, physical and sexual) to find that those participants with higher frequencies of violent experiences were more symptomatic for depressive disorders, had higher levels of internalised homonegativity, and were more likely to be HIV-positive. Secor et al. (2016), working in Kenya, found similarly strong associations between prevalence of depressive disorders (including severe depression

1 "Sexual minorities" is used in this study as an equivalent term for lesbian, gay, bisexual, transgender or intersex (LGBTI) individuals and groups, as well as other young people with diverse sexuality or gender identity.

and ideation of suicide or self-harm), experience of physical and sexual violence, internalised homophobia and hazardous levels of alcohol use. Finally, studies in Lesotho, Cameroon, Nigeria and South Africa, with similar aims and designs, have also found significant correlations between experiences of "psycho-social adversities," including stigma, discrimination and violence; frequency of higher-risk sexual behaviours; and lower intentions to undergo HIV testing, amongst other sexual health variables (Heusser and Elkonin, 2014; Oginni et al., 2019; Rodriguez-Hart et. al, 2017, 2018; Stahlmann et al., 2015a; Stephenson, de Voux, Sullivan, 2011; Stoloff et al., 2013; Ulanja et al., 2019).

Most of these countries share a context of criminalisation and strong socio-cultural exclusion of MSM, suggesting that the research findings may indeed be highly relevant to the situation of young MSM in Zambia (Zahn et al., 2016). However, these efforts also share important limitations and acknowledge ongoing knowledge gaps. They are unable to provide insight on causal mechanisms or pathways between the linked variables, for example, a standard limitation of some quantitative research designs. They are also unable to shed light on how individuals understand, live with or address the mental health challenges that the studies identified. None focus specifically on young MSM and, aside from recommendations to improve the availability of mental health services, such as co-location with HIV or other SRH services, the studies provide few insights on other resources, such as social support or personal practices for recovery and resilience, issues which may be important in countries such as Zambia where mental health services are limited for all populations groups (Mayeya et al., 2004; Mustanski, Newcomb, Garofalo, 2011). As a result, the studies signal the need for continued investigations (using qualitative or mixed-methods approaches in addition to survey designs) not only to improve the understanding of such complex dynamics, but also to guide expanding efforts to provide more effective and longer-term HIV and sexual health programming that takes into account a range of social health determinants, especially the role of mental health.

Elsewhere, largely in North American and European settings, an ever expanding body of research continues to show that there are unique features for older adolescent and young sexual minorities, including young MSM, regarding the links between mental health and sexual health (Goldbach and Gibbs, 2017; Hatzenbuehler and Pachankis, 2016; Russell and Fish, 2019; Saewyc, 2011). Much of this work has evolved from the minority stress model, which was first formulated by Meyer (2003) as a way of integrating the full range of negative experiences or stressors commonly experienced by sexual minorities and how the weight of their inter-connected effects leads to health inequities between these groups and their non-sexual-minority peers. These include higher frequencies of negative psychological states, particularly serious mental health disorders. The model further highlights the role of coping behaviours and other contextual factors that determine resilience and, subsequently, the differing intensities of the pathways or effects as they may vary from individual to individual (Meyer, 2003; Hatzenbuehler and Pachankis, 2016).

Researchers investigating mental and sexual health specifically for sexual minority adolescents and young people, including young MSM, have adapted the minority stress model to pay more specific attention to the critical role of the social environment during the period of sexuality development (Goldbach and Gibbs, 2017; Hatzenbuehler and Pachankis, 2016; Meyer 2003). This work has shown that a main determinant of mental health for sexual minority youth is the frequency and intensity of experiences of socially-mediated stigma, discrimination or violence, during this complex and sensitive life stage, and across a number of life domains, including immediate family, schools, churches, work places, and in community settings (Goldbach and Gibbs, 2017; Hatzenbuehler and Pachankis,2016). Such experiences affect cognitive processes and can lead to a range of mental health challenges at different levels of severity, including depression, suicidal ideation and severe anxiety (Goldbach and Gibbs, 2017). These in turn can influence physical and sexual health in terms of negative coping behaviours, such as problematic alcohol and drug use, social isolation, self-harm, high-risk sexual behaviour, and low motivation to use health services, including for mental health support (Hatzenbuehler and Pachankis, 2016; Russell and Fish, 2019). As young sexual minorities explore and affirm their sexuality, they are particularly sensitive to socio-environmental influences (as are all young people) (Goldbach and Gibbs, 2017; Saewyc, 2011). Additionally, at this life stage, individual or social resources upon which to draw for assistance may be limited, especially where there is inadequate recognition or support for sexually diverse youth (Saewyc, 2011).

How do these findings apply to African settings where social environments are more complex and negative influences on mental health more potent; and where opportunities for healing or resilience may be rarer (Müller et al., 2018)? This research sought to explore this using elements of the minority stress model as a conceptual frame (see below). The model is gradually being applied on the continent to examine links or pathways between sexuality; experiences of sexuality-related stress; and effects on mental and sexual health for sexual minorities in highly risk-prone, complex contexts (McAdams-Mahmoud et al., 2014; Stahlmann et al., 2015b; Makanjuola, Folayan, Oginni, 2018). Using a mixed-methods approach involving a small, nationally distributed sample of young MSM, the study aimed to complement and extend these efforts while addressing an important evidence gap for Zambia. In sought to contribute to the growing literature on mental health challenges for young MSM in African contexts with a view to encouraging greater integration of mental health components within policy and programmatic responses to HIV and other health-related needs for this highly vulnerable group.

Chapter 2

Conceptual Framework

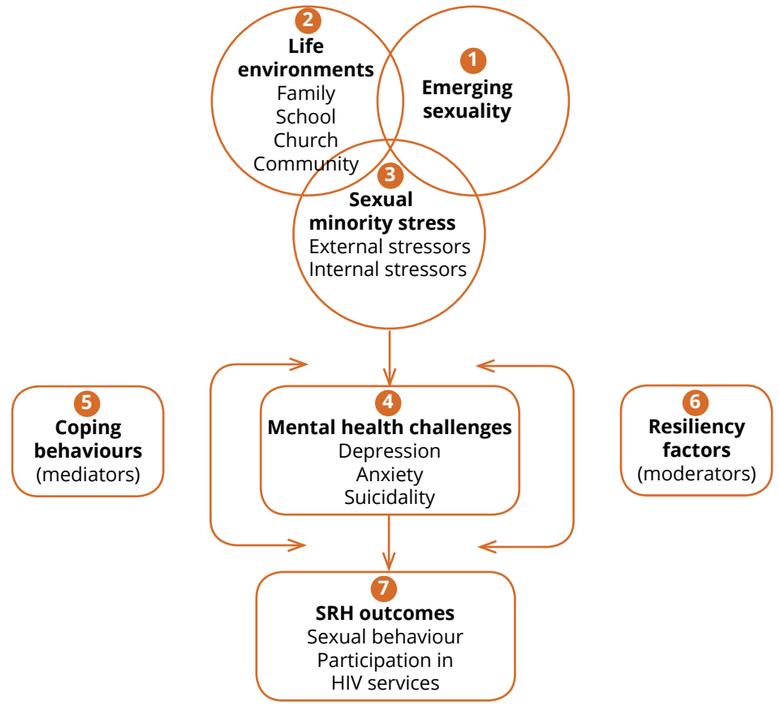
As noted above, the minority stress model proposes that mental and sexual health disparities affecting young sexual or gender minorities are not generally the result of neuro-physiological issues inherent to such individuals but, instead, largely result from social determinants, particularly issues of stigma, discrimination and other negative or prejudicial features across different aspects of their life environments (Hatzenbuehler and Pachankis, 2016). The guiding conceptual framework for this study (**Figure 1**) is derived from this understanding.

The framework suggests that, given certain features of the socio-cultural context in Zambia, young MSM, as they begin to experience and understand their sexuality, may at the same time experience degrees of conflict within their life environments, particularly within their families, schools, churches and other social spaces (1) - (2).

These conflicts may be acute and result in sexuality-related stressors not experienced by their non-sexual-minority peers (3). The stressors may arise externally, such as experiences of stigma, discrimination or violence (including sexual violence and abuse). Or, they may arise internally, such as constant fear or anxiety about the occurrence of stigma, discrimination or violence; the burden of hiding or concealing sexual identity or sexual practice; and, personal attitudes and beliefs about sexuality, such as internalised homophobia or self-stigma (all examined in the study using close-ended survey questions and a semi-structured interview guide).

Moreover, the experience of these stressors may affect mental well-being, including the magnitude or frequency of psychological challenges, especially depression, anxiety, and suicidal ideation (examined in the study using psychometric screening tools and semi-structured interview questions) (4). Mental well-being may influence sexual health, including the frequency of HIV-related and other sexual risk behaviours and use of SRH services (7). The study explored whether poor mental health is linked to lower levels of sexual health including higher-risk sexual behaviours (measured using closed-ended survey questions regarding condom use at last anal sex) and lower uptake of SRH services (measured using close-ended survey questions regarding HIV testing, knowledge of HIV status, and disclosure to sexual partners).

Figure 1: Conceptual framework



Finally, the presence of mediators and moderators may lead to significant interpersonal and intra-group variability regarding links between stress, mental health and sexual health.[2] *Mediators*, or additional behaviours or events along the pathways between stress, mental health and sexual health, have either positive or negative influences (5). On the negative side, an experience of discrimination in a school setting may lead to problematic drinking or drug use which, in turn, may cause more severe mental health challenges (negative coping behaviours). On the positive side, a serious negative event in a community setting, for example, such as a threat of violence, may lead to an individual reporting it to a trusted friend with the result that the potential trauma is reduced and the risk of mental health complications is lower than had this individual not taken this step (positive coping behaviours and building resilience). *Moderators* have a cross-cutting influence on the intensity of the pathways between experiences of stressful states or negative events and their effects on mental health and sexual health, also in either positive or negative directions (6). Young MSM with strong connections to social networks, or with family support, may have, at once, more ability to avoid stigmatising situations as well as more means to seek support and build resilience, including accessing mental health services. By contrast, a young person in a more isolated setting may have fewer means and possibly less resilience to experiences of sexual minority stress. These study explored these relationships through the analytical process of triangulation.

2 See also Baron and Kenny (1986) for further explication of the application of these theoretical concepts in the context of social psychology research. They largely pertain to statistical analysis but, as this study and others have attempted to show, they also have explanatory relevance in qualitative analysis.

Chapter 3
Research Questions

The study investigated the following questions:

a) How do experiences of stressful states or negative events linked to their status as sexual minorities affect mental health for young MSM?

b) Are there links between mental health and sexual health for young MSM?

c) What secondary effects or mediators occur for young MSM, in either positive or negative directions, and how does this influence the relationships between sexual minority stress, mental health and sexual health?

d) What moderates, in either positive or negative directions, the relationships between sexual minority stress, mental health and sexual health, for young MSM?

e) How do young MSM understand and address their mental health needs?

f) What are the experiences for young MSM in seeking mental health support?

Chapter 4
Methodology

4.1 Study design

The study followed a mixed-methods parallel design with simultaneous collection of qualitative and quantitative data from the same study sample (Tashakkori, Johnson, Teddlie, 2021). The qualitative component involved semi-structured interviews; the quantitative component involved a self-administered, confidential questionnaire. On the one hand, it was important to explore in some depth the complex, individual experiences of sexual minority stress through in-depth interviews. On the other hand, regionally validated screening tools were available to provide a complementary, quantitative lens on the potential presence or absence of signs of mental health challenges and their severity. In addition, the anonymous questionnaire was able to capture sensitive information, such as alcohol or drug use, or most recent sexual behaviour, some of which remain criminalized in Zambia and potentially difficult for young participants to disclose during face-to-face interviews. Using the two approaches allowed for triangulation and a richer analysis of the complex phenomena underlying sexuality-related stress, mental health and sexual health for the study participants.

4.2 Study population, sampling and recruitment

The study population was young males (18-24 years) with a full or partial same-sex sexual orientation, assessed along the dimensions of self-expressed emotional or sexual attraction to other males, same-sex sexual behaviour, and self-expressed sexual identity. Given the Zambian context, and the lack of previous research experience within the study population, snow-ball sampling was used to recruit potential participants in five locations (Chipata, Kapiri Mposhi, Livingstone, Lusaka and Solwezi). In all of these locations, there were current or recently completed sexual health interventions for MSM meaning that there was a known presence of the study population. A mobiliser (a member of the MSM community) and members of the peer interview team (see below) confidentially promoted the study within the different social networks for young MSM in the study locations. Inclusion criteria consisted of age,

male gender at birth, sexual attraction to other males, and willingness to have an in-depth interview audio recorded. At total of 56 young men (16 from Lusaka; 10 in each of the other locations) initially agreed to participate and completed the questionnaire.[3] Two (Lusaka) subsequently declined the audio-recorded interview. All participants were offered 100 Zambian Kwacha (US$8) at the end of the encounter to support transport costs.

4.3. Data collection

Data collection occurred in secure, confidential settings. Locations were chosen based on the recommendations of the study team and by representatives of sexual minority organisations consulted during the study design. In three locations, data collection took place on the premises of the Open Doors Project, a USAID-funded, key-populations-focussed initiative implemented by the Zambia Health Education and Communications Trust. Data collection was conducted by a team of trained peer interviewers. Following administration of verbal informed consent procedures and an eligibility assessment, participants completed an anonymous questionnaire in English and placed it in a sealed envelope. Interviewers remained on hand to assist with English comprehension as required.[4] Subsequently, participants were asked again to consent to audio recording and, if agreeable, proceeded through a semi-structured, in-depth interview lasting between 30-40 minutes. Interviews were conducted in English, Nyanga or Bemba, at the request of the participant. At no time was personal identifying information collected. Research supervisors were on-hand (physically or remotely) to assist interviewers to respond to unforeseen adverse reactions or other study risks (none occurred).

The self-administered survey was constructed of multiple-choice, closed-ended items that gathered data on sexual orientation and gender identity, socio-economic characteristics, living arrangements and relationships status (see Annex A). It included sections on alcohol and drug use (using the using the Alcohol Use Disorders Identification Test [AUDIT] and the Drug Use Disorders Identification Test [DUDIT]), and experiences with physical or sexual violence (having experienced violence or having done such things to others) (WHO, 2001; Berman, 2003; WHO, 2017). Three specific items addressed mental health: the Center for Epidemiological Studies-Depression (CES-D)-10 scale, the General Anxiety Disorder (GAD)-7 scale, and the Suicide Behaviors Questionnaire-Revised (SBQ-R), all of which had been previously validated in Zambia or a similar African setting although not with the specific population for this study (Irwin et al., 1999; Osman et al., 2001; Spitzer et al, 2006).[5] No adaptations were made to the content of these scales or assessment tools. A final section of the questionnaire captured data on most recent sexual activity and HIV testing, including condom use, knowledge of HIV status, HIV testing history, and disclosure of HIV status with sexual partners (questions were adapted from WHO [2017]).

The in-depth interview guide explored the following topics: experiences growing up in family and community; future expectations; self-concept, including sexuality and the process of discovery, as well as degree of self-acceptance; day-to-day coping strategies, including managing disclosure, protection of social status and resilience; negative experiences related to sexual orientation or sexual behaviour, including stigma, discrimination or violence (actual or feared); current mental health status (self-assessed); positive or negative mental health influences; coping and recovery mechanisms; experiences with seeking mental health services (and payments, if any); and, finally, ideas for change and improvement (see Annex A).

The survey and the in-depth interview guide were reviewed and discussed by members of the research team and as part of a small focus group discussion involving young MSM in Lusaka which was convened during the developmental phase of the study. Following training of interviewers and transcribers, the instrumentation was piloted and subsequently adjusted for terminology (to improve comprehension) and logical flow. A subsequent adjustment was made to terminology, particularly regarding the explanation of the concept of 'mental health', after the first set of interviews were conducted; however, this change did not affect the substantive content of the data collection tool.

4.4. Data preparation and analysis

Audio recordings were transcribed (and translated by transcribers, where required) into English. Continuous checks for transcription and translation quality were performed by members of the research team. For the interview data, the research team used thematic analysis based on structural coding aligned to the conceptual framework (Braun and Clarke, 2006; Saldaña, 2015). The two principal investigators developed a coding manual and initially coded four transcripts. The manual and coded transcripts were reviewed by a third colleague, outside of the research team, for clarity and consistency. Subsequently, the code book and all transcripts were loaded to Nvivo (12 pro). Transcripts were independently coded with periodic quality assurance checks using Nvivo (Woolf and Silver, 2017). Survey results were entered into Excel and analysed using descriptive statistical techniques to generate descriptors and other in-sights regarding the study participants on key dimensions linked to the conceptual framework.

Finally, a flexible, dialogic approach to triangulation was employed to build complementary, reflexive links between the two types of data (Denzin, 2012; Flick, 2016). This technique is relevant for exploratory research examining mental health concerns where social or structural determinants may play a substantial role as suggested by the minority stress concept. The approach helps to limit a tendency at too early a stage in knowledge development to pathologise psychological distress for sexual minorities (as many studies have pre-emptively concluded) and, in doing so, to tend towards privileging bio-medical explanations over other equally salient, socially-oriented interpretations of mental suffering or distress (Bergin, Wells, Owen, 2008; Pilgrim, 2014; Pilgrim and Bentall, 1999).

4.5. Preliminary results sharing and validation

Preliminary results were shared for further discussion and review in meetings with the research team, and with representatives of key stakeholders, such as NAC and members of the Key Populations Technical Working Group.

4.6. Ethics

This study is a component of a larger joint research project entitled, *Exploring the social determinants of sexual and reproductive health inequities for selected sub-groups of older adolescents and young people in Zambia*. The project was approved by the Biomedical Health Research Ethics Committees of the University of KwaZulu-Natal and the University of Zambia. The project was also approved by the National Health Research Authority in Zambia.[6]

3 As there are no data on the population size of young MSM, the sample size was based on a convenience estimate considering feasibility (modest targets) and achieving a sufficient variety of participants in each of the five sites.

4 English is the language of instruction in Zambia from primary to tertiary levels, meaning that it was reasonable to assume a baseline level of English comprehension for the survey. As shown in Section 4.1, Table 1, 90% of participants indicated that English was a main language of communication.

5 For AUDIT and CESD-10 in Zambia, see Chishinga et al., 2011; and Kilburn et al., 2018; for GAD-7, see Barthel et al., 2014; for SBQ-R, see Aloba, Ojeleye, Aloba, 2017. The DUDIT has not been previously used in Zambia.

6 The Zambia research programme is also part of a regional, five-country study on the social determinants of sexual and reproductive health of young key and vulnerable populations (the other four countries are Angola, Madagascar, Mozambique and Zimbabwe) led by HEARD in partnership with local research institutions.

Chapter 5
Results

The findings address sexuality; sexuality-related stress and its effects; mental health and coping mechanisms; seeking help; and sexual health. They describe, for the young participants, the enduring tension and the mental health effects surrounding their processes of exploring and affirming their sexuality in a complex social environment. This environment is replete with social, physical and emotional risks, but one in which young MSM must nevertheless find and build a meaningful (if sometimes precarious) social existence. In response, they have developed a range of strategies to attempt to protect or improve their psychological and emotional health in the absence, for many, of supportive families, peers, school authorities or mental health services, among other gaps. These strategies, and the social context, may also affect sexual health, although not to the extent suggested by other research, at least for this small group of young adult MSM in Zambia.

5.1. Background characteristics of participants

Data on selected characteristics of the 56 study participants are shown on page 15.

Table 1: Characteristics of study participants

Characteristic	Total N(%)/Median (SD/ range)	Characteristic	Total N(%)/Median (SD/ range)
Total	56	**Employment** Employed (FT/PT/self) Not employed Student	 13 (23%) 36 (64%) 7 (13%)
Age	22 (1.71, 18-24)		
Gender (at birth) Male	 56 (100%)		
Gender (self-defined) Male Female Transgender Other	 51 (91%) 2 (4%) 2 (4%) 1 (1%)	**Income (n=27 (48%))**	ZMW1000 (1781, 100-8000)
		Social status Single Relationship	 28 (50%) 28 (50%)
Sexual orientation Gay/homosexual Bisexual Heterosexual Not sure	 40 (72%) 13 (23%) 2 (4%) 1 (1%)	**Housing** Family Rent/own/share Homeless	 27 (48%) 28 (51%) 1 (1%)
		Country of Birth Zambia	 56 (100%)
Education Primary Secondary Post-secondary	 2 (4%) 38 (68%) 16 (28%)	**Language** English Bemba, Nyanja, Other	 51 (91%) 4 (8%)

FT=full-time; PT=part-time; self=self-employed; SD=standard deviation; ZMW=Zambian Kwacha

The median age of participants was 22 years; all were Zambian citizens. While all were born male, five participants expressed a different gender identity at the time of the study. Two-thirds of participants (68%) had at least some secondary level schooling.[7] A similar proportion of participants were unemployed. The median monthly income for the 48% receiving any was ZMW1000 (approximately US$80). Participants were equally distributed on relationship status; however, most relationships were of short duration (less than one year). Finally, almost half of participants (48%) continued to live with their families.

During interviews, participants were asked to describe their general childhood experiences, both within their families and in the community around them. Participants had grown up in a range of family situations: living with and being cared for by both parents, having single parents, having step-parents (particularly step fathers), living with relatives, or being orphans. Socio-economic challenges were a feature of many childhoods. In addition, for those that lived with step-parents, there was social stigma, with differences in affection and support (and sometimes emotional and physical abuse) between 'natural' offspring and the study participants. There was a similar range with regard to experiences within communities, with some participants recalling 'normal' childhoods while others spoke about more challenging circumstances, such as being stigmatised for having only one parent, being an orphan, or being poorer than others. Aside from specific issues related to sexuality, which are discussed below, these family and community experiences likely reflect the situation for many other young people in Zambia (UNICEF, 2012).

7 By way of comparison, in 2014 (the latest data available), 42% of males aged 20-24 had some secondary level schooling and 24% had completed secondary school (this present study did not make this distinction). A further 7.1% had progressed beyond secondary level (Central Statistical Office, Ministry of Health, ICF International, 2014).

5.2. Sexuality

During the interviews, participants' understanding of their sexuality was further explored, including its importance in relation to others aspects of life, such as religion or culture; and degree of personal comfort and confidence with sexuality. Participants were asked to briefly describe how they came to know about themselves, including their age of discovery, and the setting or circumstances of these events, as much as they were willing to disclose. This was an important starting point for the study as there are no similar accounts in Zambia. It was therefore important to anchor the minority stress and mental health analysis, set out in subsequent sections, in an understanding of the main sexuality-related characteristics of the study participants in their context.

Consistent with the quantitative results (see **Table 1**, page 15), most participants described a primary sexual and emotional attraction to other young people of the same sex, using a variety of terms in English or another Zambian language (including but beyond 'gay' or 'bisexual'). When asked about comfort with and importance of their sexuality, participants expressed themselves with confidence, as the following examples show:[8]

> ***"Mhmmm...the way I would describe my sexuality is I am a proud gay person, very proud. I was born like this and there is absolutely nothing I can do about it. It's something that is natural. I was born this way. So people, the way I would like people to see me..to see me like a normal person the way other people are..."*** ***(20 years, Solwezi--IS_SU03)***

> ***"Okay, yes I can say that I'm very much comfortable because I cannot change myself for someone to be happy. Okay, let's say that you cannot force a banana tree to produce mangoes while it's a banana tree. So that's me, I'm very much comfortable with being gay."*** ***(19 years, Livingstone--ILV_SU11)***

> ***"Ahhh...not a damn thing can stop me from being who I am. That's one thing. And if they can stop me, or if I can stop, that means I'm not me, I'm not who I am. Because this is who I am, this is my life, yeah, so I can't stop. This lives in me. I live in it."*** ***(22 years, Chipata--IC_SU15)***

These young men described their sexuality as innate ("This lives in me..."); something they were born with; as bestowed on them by God ("God created me"); as immutable ("I cannot change myself..."); and as a source of pride and joy. For some, these convictions formed after periods of introspection, self-doubt or other types of conflict within the self, including those linked to religious faith.

> ***"I'll say I'm bisexual and it's something that I can't change by myself. It's something that I've tried to change but it's very unfortunate at the end of it. I've just accepted it that...that's the way I am because it is something that you can't learn from someone. I've taken it that it's something that you're just born with. It's in the blood."*** ***(22 years, Solwezi--IS_SU16)***

> ***"I am a very highly 100% Christian. I go to church every Sunday. I know what I'm doing is wrong, but this is who I am, you know? At the end of the day, the community won't judge me."*** ***(20 years, Lusaka--IL_SU07)***

Countering the notion of homosexuality as learned behaviour (that could be changed) or as perverse, individual choice (rather than an innate characteristic); or finding a compromise between religious faith and acceptance of sexuality (*"balancing up"* as another participant described) were important steps towards self-understanding in these examples. They illustrate the nature of these young people's interactions with the social environment early in their self-development and how they take into account these influences as they build their personal narratives of positive sexuality and acceptance.

In recalling the emergence of their sexuality, participants described a variety of events and settings. There were links in these accounts, however, across some common features or milestones, including childhood recollections of socialising with girls more than boys; beginning to experience same-sex attraction during puberty (although not always knowing the wider social meanings of these feelings); having first sexual experiences during later adolescence in schools, or amongst friends or members of extended families; and, finally, entering a period of very conscious, and sometimes conflict-ridden, internal processes to negotiate and arrive at personal acceptance. A common memory was of playing with girls more than boys or being more interested in 'feminine' things.[9]

> ***"And I noticed, to say, I preferred being around girls than fellow guys. I felt comfortable, you know, handling things the lady ways than the manly ways. Ah, I felt comfortable sharing things with ladies than guys. And you know..ahh..I don't know if it's because I am a child of the late 1990s and all that where, you know, even before puberty hit in, I would look at a guy and go like, wow, you know, he's cute!"*** ***(22 years, Lusaka--IL_SU18)***

As the example illustrates, the onset of puberty marked a period of emerging, same-sex emotional and sexual attraction. Participants eventually moved through this initial stage to have their first sexual experiences.

> ***"Well, the first scenario was actually with my cousin [laughs]. Yeah, the first scenario was with my cousin. At that time I think I must have been somewhere of age of...should be 13..13,14. So I visited them. At that point we were staying in Choma, so I visited them here in Livingstone. Ahh..we first kissed and then when bathing, he started touching me in a kind of way that I felt very nice. And, yeah, things happened and from that time onwards, I discovered there was that sexuality side of me." (23 years, Livingstone-- ILV_SU09)***

Confidential disclosure and finding support and acceptance from family members and friends was another important step on the pathway towards self-acceptance. Sometimes, these friends or family members were also MSM themselves, or at least knowledgeable and accepting.

> ***"Me and my younger brother have been really close, so I told him about my sexuality and he took it very well. He does not judge me but he asks a lot of questions, yeah. I answer his questions. Sometimes he comes up to me and he is, like, 'Do you know that this type of stuff can cause this?' And I am, like, 'I already know. I know what I am doing. You don't have to worry.' There he is looking out for me and all that stuff. I am really happy that he is there."*** ***(21 years, Kapiri Mposhi-- IK_SU16)***

Linking to social networks (which appeared to be well established in all research locations) was also a way to externalise sexuality and achieve self-understanding, as the following example describes.

> ***"Ahhh..I think after the day I met those guys, they explained to me some things. Then I found that there are people who are like me, in that way. I felt good and I started feeling myself normal. Then, before meeting those guys, I used to see myself as not normal. But after I met them, I started seeing myself normal and I even knew that being like this is just okay."*** ***(23 years, Kapiri Mposhi--IK_SU17)***

From these interactions, individuals also gained knowledge about sexual health, including about condom use, lubricants, and HIV prevention. In the absence of other sources of information about same-sex sexual health in Zambia (in schools or from health care workers, for example), social networks played an important role.

8 There was an important distinction in the responses between sexuality and social identity. While most were confident and accepting of their sexuality (having same-sex emotional and physical desire), the findings were quite different regarding a same-sex social identity, as subsequent sections explain.

9 This highly gendered understanding of same-sex sexual difference is a regional phenomenon of some complexity that is beyond the scope of this discussion to explore (Sandfort and Reddy, 2013).

Finally, when participants were asked about future prospects, in terms of their lives in general, but also in terms of their sexuality, like typical young people, they had hopes for prosperity, a profession, more education (beyond high school), and becoming independent from their families. Two participants' responses were notable in this regard:

> ***"Well, I look at it [the future] as some kind of a very joyful moment. I look at it as very much fun, awesome. Uhmm, most of my relationships are what are actually making me say this because there will never be a dull moment when you marry a man. And being in the same house, living together, trying to have little siblings by adoption, and stuff like that. It's..it's just something that I imagine to be so awesome. Yeah!" (bisexual male, 23 years, Livingstone-- ILV_SU09)***

> ***"You can be a counted man in society, you see? You can be a counted man in society. You can do good, you can be good. You can be one of the big people but still be gay, you understand?...Even though you are gay, it is not written on your forehead, it will not stop you from doing anything!" (gay male, 22 years, Lusaka-- IL_SU18)***

These characteristics of young MSM in Zambia have important links to the remainder of the analysis regarding sexuality-related stress and its mental health influences. On the one hand, as the following sections illustrate, the steps the young participants take to understand, express and affirm their identities, personally and socially, also attract forms of external and internal stress, in some cases to a high degree of severity. These have important mental health effects that can erode or reverse what is achieved in terms of their positive self-regard. On the other hand, strong personal convictions; close connections with family members, friends or social networks; religious belief; and optimism for the future feature prominently as mechanisms for coping, recovery and resilience (positive mediators and moderating influences, according to the conceptual framework), particularly in the absence of other resources, such as mental health services.

5.3. Types of sexual minority stress and their effects

At the same time as these young men moved through the stages of discovering and affirming themselves, they also began to encounter the many risks in their life environments and learned of the need to adopt different strategies to protect themselves socially, physically and emotionally. For all participants, these day-to-day risks would escalate into more serious stress linked to different forms of stigma and discrimination (including physical or sexual violence) in school settings, families, churches and communities, often with lasting consequences in areas such as school performance, social connections, or family support. These aspects of the findings are explored using the categories of external stressors and internal stressors as suggested by the minority stress concept.

5.3.1. External stressors: stigma, discrimination and violence

Participants had already experienced many different forms of external stress in their young lives. These included different manifestations of stigma, discrimination or exclusion, and acts of violence within their families, schools, churches, or in other social settings. Some participants declined to discuss these things, expressing their unwillingness to recall traumatising experiences or to 're-live' what they had experienced.

Stigma

Stigma emerged as a primary driver of mental stress. In this study, verbal stigma, or *"saying bad things"*, occurred in many different situations, but with similar negative effects, as these participants described:

> ***"They don't like me [people in the community] because of the association I don't have with women. So they don't like me. Every time I pass by them, they always say, 'Oh, that's a boy-girl! That's a boy-girl!' or something. It's something that troubles me a lot in my heart." (gay male, 22 years, Kapiri Mposhi-- IK_SU20)***

> ***"My other bad experiences that I have gone through is...like when you pass, people call you, 'Oh that's my girlfriend!' You understand? 'Oh that's my girlfriend. Look at the way he's walking; look at the way he talks!'...It just feels bad...You feel like, why are these people talking about me always? You feel like it's not worth living because these people are just talking about you each and every day. It makes you feel bad but why won't they just accept the fact that this is just how this person is? You understand? So those are the things that are very bad that I have gone through." (gay male, 20 years, Solwezi--IS_SU03)***

"Boy-girl" or *"ni-boy-girl"* are Zambian expressions for gay or homosexual (along with *"mwebize"* and *"kankra"*) and when used in the contexts these individuals describe are meant as insults. Other expressions mentioned during the interviews were *"mentally disturbed"* and *"demon-possessed".* In the three examples above, it is the fact that the verbal stigma is constant (*"every time I pass", "each and every day"*) that makes it weigh heavily upon the young participants which then leads to it being internally absorbed. Consequently, their self-esteem and self-confidence are affected, particularly in the way that the participants express a sense of *"worthlessness"*, *"disappointment"*, and, finally, that life is *"not worth living"*.

Discrimination and exclusion

Discrimination and exclusion, or going beyond verbal stigma to different types of specific actions against individuals, had more serious consequences in terms of felt or enduring psychological effects. Similarly, it occurred in many forms and across different domains of daily life, as these examples illustrate.

> ***"So people [at school] started suspecting me, like, 'You are gay!' That was the bad thing. I lost many friends [...] because most of my friends stopped visiting my place, stopped coming over for a sleep over. Because they were, like, 'No he's gay and we are men also. So he can maybe try to rape us.' So that was so bad. It really affected me." (bisexual male, 19 years, Lusaka-- IL_SU03)***

> ***"The reason why it's really tough for me to get a job is because of my, like, sexual orientation and the way I appear. I think people, not everyone, will be uncomfortable being around me, yeah. They think we are a sin or maybe it's bad luck to have me.[...] So it really affects me. I think my sexuality will really affect my future and I am really worried for my future. I also have dreams, I also have aspirations, I also have things I want to achieve, but I just wish people would not judge me." (gay gender non-conforming, 21 years, Kapiri Mposhi-- IK_SU16)***

Recalling that half of the study participants were still living with their families helps to emphasise how family rejection, explained in the first example, can be catastrophic and a situation to be avoided. This fear recurs later in the analysis in relation to the need to constantly conceal sexual identity, particularly to family members. While some participants had been forced out of their family homes when their sexual orientation was either discovered or strongly suspected (to live with relatives in another city or town, or to be homeless, in one example), others had been shunned or excluded while still staying with their families (in one example, a participant was no longer allowed to eat at the same time as others). The emotional toll was evident in these accounts. In the two examples given above, losing friends or failing repeatedly to get employment (particularly when other former classmates were being successful, as the participant explained) had similar negative effects.

Discrimination also occurred as a result of forced or purposeful disclosure of sexual identity or sexual practices, acts

that were deliberately done to bring shame and embarrassment on these young people. This was done in different forms by different individuals and, in the two examples recounted below, came unexpectedly with significant consequences. In the first example, the disclosure occurred at the family's church:

> ***"I don't go to church right now because they prophesised that I am feminine and I've got a spirit of a woman and they said this in front of my family, you see. […] Instead of standing me to the side, he told me in front of people, you see. Cause I feel…I think that day I felt judged, you see, and I was embarrassed in front of people because others believed it saying, yes, I do look like a woman."*** ***(transgender, 23 years, Livingstone-- ILV_SU12)***

In this religious context, for a male to have *"a spirit of a woman"* is demeaning, even the more so when it is pointed to in a public setting. Being unexpectedly condemned or *"judged"*, as the participant describes, has significant consequences for both the individual and for the social reputation of the family. As is discussed later in the analysis in relation to self-stigma, one's actual or potential negative effects on the social reputation of the family can lead to serious self-doubt and related mental distress, including thoughts of suicide.

Physical and Sexual Violence

The harshest form of external stress for the participants concerned physical or sexual violence, as actual, traumatic experiences, and as things that are feared. Experiences of violence have significant associations with the frequency and intensity of mental health challenges for sexual minorities, including within African contexts, as the introduction to the study outlined. The findings in this section largely confirm this for Zambia, although what they add to previous research is a more in-depth experiential component as regards to mental distress. There were significant differences between what participants disclosed through the confidential survey and what they were prepared to discuss during the interviews. The survey data is presented below.

Table 2: Experiences of physical and sexual violence

Physical violence	Total N(%)/Median (SD/range)	Sexual violence	Total N(%)/Median (SD/range)
Experienced violence		**Forced to have sex**	
Ever	42 (75%)	Ever	29 (52%)
Age	17.5 (3.92,2-23)	Age	18 (3.43, 9-24)
Past year	32 (57%)	More than once	20 (36%)
Because of sexuality (n=42)	24 (57%)	Boyfriend/sexual partner (n=29)	13 (45%)
Boyfriend/sexual partner (n=42)	13 (31%)	Friend (n=29)	11 (20%)
Told someone?	24 (57%)	Relative (n=29)	1 (1%)
Hurt someone		Other (n=29)	3 (10%)
Ever	27 (48%)	Told someone? (n=29)	6 (20%)
Past year	21 (38%)	Forced someone to have sex	
Boyfriend/sexual partner (n=27)	11 (41%)	Ever	20 (36%)
		Past year	14 (25%)
		Boyfriend/sexual partner (n=20)	8 (40%)
		Friend	12 (60%)

Three-quarters (75%) of participants had experienced violence in their lifetime, with over one-half (57%) having experienced it in the past year. There are no nationally comparable data for Zambia on violence amongst men. Of those who had ever experience violence, 57% believed it was or may have been because of their sexuality. One third of this group had experience violence from a boyfriend or sexual partner. Another 57% had told someone about the violence they experienced, mostly a family member or friend. Only one participant sought police assistance (the outcome was not disclosed).

Almost one-half (48%) of participants disclosed having physically hurt someone, 38% having done so in the past year. Of those ever having hurt someone, 41% had hurt a boyfriend or sexual partner. With regard to sexual violence, just over half (52%) of participants disclosed ever having been forced to have sexual contact, with one-third (36%) stating it occurred more than once. These encounters occurred mostly amongst sexual partners or friends.[10] Very few participants had sought assistance, mostly by telling friends, none with the police (this included participants who indicated that it had occurred 'more than 10 times'). Just over one-third (36%) of participants had ever forced another person (a friend or boyfriend) to have sex, one-quarter (25%) in the past year.

During the interviews, very few participants shared their experiences of physical or sexual violence. Some were clearly reluctant to recall such events. For those that did discuss them, there were different circumstances or reasons why the violence occurred but all were related in some way to actual or perceived homosexuality. Physical violence could happened very unexpectedly as the example below describes:

> ***"There was a time I went to a club with someone I was at school with. After I met that friend, he was with three of his friends. And so I met him, I saw him after a long time so hugged him and we even started dancing. So those guys, when the guy went to the toilet, to the bathroom, those guys approached me and started asking me, like, 'Why are you hugging our friend like that? Are you gay?' So then I tried to confront them, also just protect myself. Someone even slapped me. So my friend came and he was like, 'No, he is just my friend! It's been long ever since I saw him. That's why we are hugging each other.'"*** ***(gay male, 22 years, Solwezi-- IS_SU05)***

For this young man, the effects were enduring as he explained:

> ***"It's the same thing that I explained earlier about the incident that happened at the night club, when I was slapped. When I went back home and I started thinking about it. This person doesn't even know if I was gay. He just asked, 'Are you gay?' When I tried to defend myself [he was], like, no, I was hiding. I mean, it's a night club and he slapped me! What if he found me with someone, what would have happened? For example, if I got drunk and I took someone in my room and I..I was caught having sex with this person. I am sure they would kill us. So I was, like, let me just leave this world. So I was thinking of killing myself, thinking maybe it was the easy way out."*** ***(gay male, 22 years, Solwezi-- IS_SU05)***

The incident left deep traces of distress leading to thoughts of suicide. Other experiences of violence included being physically assaulted by family members (mothers, uncles, fathers, brothers), or being threatened with assault, usually upon discovery of sexuality, but also related to strong but unconfirmed suspicions.

As the survey data showed, sexual violence also occurred for the participants, as individuals who were assaulted as well as those (in much rarer instances) who assaulted others. The example below describes one young man's experience.

10 The study could not clarify the category 'friend' as very few participants discussed experiences with sexual violence during the interviews.

"It also happened once where this man who wanted to sleep with me just because he, he knew that I was bi and so he decided to, like, force me to do that with him of which I kept on refusing but he just did it like out of my own will....He did it without my consent...I later started thinking every guy is the same. That's what I used to think. But when I decided to talk about it with somebody who can actually help me, ahhh the person encouraged me to say, 'Don't see everyone the same way because we are different.'" (bisexual male, 20 years, Solwezi-- ILV_SU10)

During the interview, the participant did not say when this incident had happened. He explained that he did discuss the assault with a friend and also reported it to a health care worker. He did not report it to the police fearing that he would also be implicated for having had same-sex sexual activity. Nothing came of his disclosure to the health care worker in any case. While there appeared to be some resolution in the advice he was given regarding not thinking *"every guy is the same"*, at the time of the interview some of the negative effects of the event were still lingering:

"Okay, like, it's really been hard. But what I can say for now is my friends and my family have been there to encourage me here and there, help me out with the emotional part that I have." (bisexual male, 20 years, Solwezi-- ILV_SU10)

Additional insights regarding violence and mental stress are described in the next section.

5.3.2. Internal stressors: 'acting straight'; fear of violence and rejection; self-stigma

The various experiences of external stress were interrelated with a range of types of internal stress among the participants. These included the mental or emotional burden of constantly needing to hide or disguise their sexuality from others; fears and anxieties about the possibility of encountering different forms of stigma, discrimination or violence, particularly within their families; and experiences of self-stigma or self-doubt, largely in relation to the intensity and frequency of their negative experiences of external stress.

'Acting straight' and other ways of concealing sexual orientation

Given the considerable risks in the social environment for the young study participants, as the previous sections have described, it follows that they would learn and adopt different strategies to mitigate or avoid such risks. These all involved ways of concealing or denying any knowledge or suspicion regarding same-sex sexuality. The most common strategy was to *"act straight"* or make different efforts to hide any outward signs of sexuality, as the following examples illustrate.

"How can I put this? As I said, I put measures, like, no one can even notice or ask yourself, 'Is this person like this?' I act straight. I try my best to act straight. I always tell myself to act more straight so that no one ever notices." (bisexual male, 19 years, Lusaka--IL_SU02)

"I maintain, like, when I am with those who are not homosexuals, I keep myself cool and I..I just dance to the tune with the guys, with the people. But I don't talk about anything concerning this. Yeah, I just keep it..it's my secret, though sometimes they wonder why I don't like women. I just say, 'No, it's not my time.' But they don't know what I am doing, they don't know who I am." (gay male, 22 years, Chipata-- IC_CU15)

The need to *"dance to the tune with the guys"* was constant and, as the examples describe, required continuous self-vigilance to be sure that *"no one ever notices"* or suspects one's 'true' identity.

Concealing or dissembling involved other strategies as the following examples illustrate.

"It's just the way it is in Zambia. It's a crime if they know a guy has sex with fellow guys. So I just hide behind having a girlfriend, but I enjoy with men." (bisexual male, 22 years, Kapiri Mposhi-- IK_SU03)

"I can be found with straight people just fine. We can be hanging out and chatting with these guys. The only challenge that I have found is when the topic around girlfriends starts. So, I would put my alarm on my phone on and when the alarm goes off, I would say my uncle is calling and I have to leave, you see? And that's how I run away from that conversation and that's how I protect myself." (gay male, 23 years, Livingstone-- ILV_SU12)

Many of the participants who described having girlfriends were clear that there was no sexual relationship involved, it was simply an agreement between them for the purposes of protection when it was needed. For those that didn't have this arrangement, they used different ways to avoid the issue, as the examples above describe, including being able to leave or avoid a situation that was becoming too risky, or to directly deny any suggestions about one's sexuality. One other aspect of concealing or managing sexuality in a social environment involved developing *"tactics"* or learning different *"codes"* to be able to discern in different situations when it was safe to reveal information about sexuality, including to approach someone sexually.

There were different views, however, on the degree of stress that arose. Some showed ambivalence regarding how concealing or dissembling, and the risks they avoided, protected a private sphere for expressing themselves amongst similarly-oriented friends and peers. Others were more burdened:

"It doesn't make me feel good. I don't feel, like, I don't feel happy, you know, more especially that I am proud of who I am, and then I should be hiding. Because we are supposed to show it, so that people know that a person is proud and comfortable with the life he is leading. Now whereby you are restricted, I feel like I am in prison, whereby I can't make decisions of moving, yeah. So I don't feel good. I wish one day they will allow us to be moving and expressing ourselves, yeah, that's my wish." (gay male, 23 years, Kapiri Mposhi-- IK_SU17)

"For those that I don't know? I manage because I pretend to them. I don't want them to know who I am. That is why I'm saying for how long are we going to pretend? And nature is nature. You can't control nature." (bisexual male, 22 years, Lusaka-- IL_SU08)

The tension between self-knowledge, acceptance and affirmation, and the complexity of the risk-prone social environment is evident in these accounts. It is both contradictory, between being proud and needing to hide, and confining, as if being in a prison. The tension is also constant and, ultimately, *"nature is nature"* or signs of one's sexuality emerge socially, as much as one tries to avoid this.

Fear of stigma, discrimination or violence

Apart from concerns about threats in the external environment, hiding of sexual identity was also in response to other fears or anxieties, particularly regarding relationships with close family members, especially parents, as these examples illustrate.

"With my mother it feels really a hard thing to do because I...They're times when I just don't want to bring her anything that will disappoint her and the greatest disappointment she can have is finding out that I'm gay." (gay male, 23 years, Livingstone-- ILV_SU06)

"I have no plans to do that [disclose my sexuality] because they [the parents] are all always against it. And they have got that spiritual orientation in them and they feel like when you are doing this,

you are possessed, you know? All that feeling all have within our society. They feel it's not the right thing to do. So disclosing to them, it will just seem as if I am putting myself in a ditch that I will not be able to get out of, so it's better I keep it within myself." (gay male, 20 years, Solwezi-- IS_SU03)

As noted previously, many of the young participants were unemployed or in school and being supported by their families or relatives. Thus, they were concerned that awareness of their sexuality by family members would result in rejection, including loss of social support in the form of love and acceptance, or, more practically, funds for education, food or shelter. Still others were concerned that being known as a gay person would bring *"disgrace"* to their family and damage their reputation in the community. Finally, some described a tension between cultural expectations of male children, particularly first-born sons, to marry and have children, and what would befall them in terms of family and community acceptance or support if their sexuality were to become known, as this participant described:

"They're very few people that would want to be associated with any person that comes out and says they're gay. They're very few families that would want to associated themselves with such a child. Most of events that we have is a situation where if I'm known to be gay then my family instantly doesn't want to attach itself with anything that has to do with me. So, to show the community that they wouldn't want to associate with me and they do not accept the way my life is, they would throw me out in the streets and the society would say okay they did that to discipline the person." (gay male, 23 years, Livingstone-- ILV_SU06)

There were also strong fears or anxieties regarding the extent of discrimination or violence that could ensue if one's sexuality became known to others, as the following examples describe:

"There are times I think of coming out but then I remember what happened [in the club when he was slapped]...There is so much violence in the society for me to come out. Because once people know you are gay, people would want to kill you or hurt you. I was very disappointed. I was so frustrated because I didn't know who to blame. I was just shocked like these people suspect I'm gay and all of the sudden they hit me. What more if they found me kissing someone? They would have killed me." (gay male, 22 years, Solwezi-- IL_SU09)

"So at times to come out like I am, like this, a lot of people will be, like, 'We will catch him and take him to the police!' and all that. So, it so happens to be, like, you are not very comfortable. You are proud of who you are but you are just not comfortable." (gay male, 21 years Solwezi-- IK_SU02)

Such concerns or fears of violent assault or arrest, even from siblings, were cross-cutting for the study participants, with many of them also fearing repeat experiences of what they had already endured in their family homes, schools or communities.

Self-doubt or self-stigma

For some participants, it was not surprising to find that the weight of these experiences and concerns resulted in self-doubt. During the interviews, some participants expressed ambivalence about their sexuality, including those struggling to balance their religious faith and their self-knowledge, as the following examples show:

"I ask God to say, 'Okay, just come up with an explanation. Why is it, why have You written that in the bible? Then, why am I like this? Because You know, I am sure You know the way that I feel and You know I cannot control this. It's beyond me.' So I ask. I have a lot of questions in my mind because I do not, I do not have an explanation for this." (gay gender non-conforming, 21 years, Kapiri Mposhi-- IK_SU16)

"I am one person that was bought up in a Christian background family, yeah. I do go [to church]. Yeah, no, nobody knows about my orientation, so I try. It's hard more especially when they are preaching about homosexuality, you know. But I tend to get what benefits me and what can help me in my Christian life." (gay male, 22 years, Lusaka-- IL_SU09)

The element of Christian faith had different functions (solace, on the one hand, and source of justification for stigma and discrimination, on the other) for the participants but was important to many of them despite these conflicts.

Other participants described how the tension between internal acceptance and external rejection could become difficult to endure, particularly in their family environments as, on the one hand, they were discovering their sexuality as adolescents, and, on the other, there was constant "rebuking" or condemnation of homosexuality whenever the topic should arise. For one participant, this constant pressure of the negative social environment prompted more serious doubts:

"I had scenarios where some of the people that were keeping me would say, 'You look like a girl. I wonder why your parents wasted time to go to the labour ward. They should have even aborted you at an early age,' and all that. There are all kinds of comments.[...] It will make you feel, it will make you feel..feel like you do not deserve to live, like, it will make you feel, like, filthy in the eyes of God, like being yourself is a sin. But..but this is something that I found myself in, I did not decide to be like this. There was never a day that I decided to change into being what I am. I was born like this, so I do not understand. I do not have an explanation to who I am and the way that I look. And I don't know why people find pride and happiness hurting people like me by doing what they do." (gay gender non-conforming, 21 years, Kapiri Mposhi-- IK_SU16)

As the example describes, this participant was perceived as very feminine in his appearance and manner, prompting a higher intensity of stigmatising attitudes, behaviours and attempts to humiliate him in his social environment. The emotion is at the surface as he explains the wounds to his self-confidence and self-esteem that what others say about him has caused. He also explains how he recovers from these traumas through re-asserting his positive self-regard – *"I was born like this..."* As this and other examples explain, there is a strong underlying belief in the 'truth' of sexuality and very little indication of internalised shame or lack of self-acceptance across the study participants. Rather, serious doubts arise through the constant need to re-affirm one's self in the midst of the relentless, negative pressure of the social environment.

5.4. Links to mental health

How does this weight of external and internal stress affect the mental health of the study participants? This section links the results from mental health screening tools with the participants own accounts of the state of their mental health. Similar to the study component on physical and sexual violence, there were differences between what participants disclosed through the confidential survey and what they discussed during the interviews. These differences revealed how mental health as a concept is understood in a very limited way by the participants and, to the extent that they experience mental health challenges, they are not always recognised as such, nor, for most, are they considered potential health risks. The survey results are shown on page 26.

Table 3: Survey results for mental health

Mental health dimension	N (%)	Mental health dimension	N (%)
Depression (CESD-10)		**Suicide thoughts (SBQ-R)**	
<10	28 (50%)	Yes, ever	29 (52%)
>10	28 (50%)	Yes, past year	27 (48%)
Median (range)	13 (0,26)	Told someone? (n=29)	12 (41%)
Anxiety (GAD-7)		Likelihood? (n=29)	6 (21%)
<10	32 (57%)		
>10	24 (43%)		
Median (range)	9 (0,24)		

These data indicate that there is a significant mental health burden for many young MSM in the study. According to standard guidelines for interpreting the CESD-10 results, half (41%+9%) of participants had signs of moderate to severe depression (score >10) (Irwin et al., 1999). A slightly smaller proportion (29%+14%) showed signs of moderate to severe anxiety according to the GAD-7 results (score >10) (Osman et al., 2001). Strikingly, more than half (52%) of participants had harboured suicidal thoughts at least once in their young lives, with a slightly smaller proportion (48%) having done so in the past year. Less than half (41%) had ever discussed these thoughts with anyone. Finally, six participants indicated in their survey responses that they were continuing to consider the possibility of taking their own lives at some point in the future.[11]

In the interviews, many participants, when asked to describe their current mental health, stated that they were "of sound mind", "stable", or "normal." Others were more clear.

> ***"My mental health at the moment? I've come to that state of mind where you don't care what people say. I am always happy, jovial, confident no matter what negative thing you can say. I will just let it slide." (bisexual male, 22 years, Lusaka--IL_SU12)***

> ***"At the moment, I just feel okay. I just feel, like, comfortable. I just feel safe with what I do, yes? I just feel..I just feel, like, it's..it's just normal, yes? Just like any other people. I just feel like it's normal living the way I am, yes?" (gay male, 20 years, Kapiri Mposhi-- IK_SU19)***

However, as discussions continued, stories of mental health challenges emerged, including self-described signs of depression and anxiety, mostly linked to negative experiences with friends, family members or in the community. Being verbally stigmatised, or hearing negative talk about sexuality, was one cause of such emotional disturbance, as in these examples:

> ***"My mental health at the moment? Okay, sometimes I feel bad when someone calls me the bad names …' You don't like girls! You just like your fellow boys!' I feel bad." (gay male, 18 years, Chipata-- IC_SU07)***

11 One recent study may provide a comparison whereby Kilburn et al. (2018) found that 33% of a sample of 1,982 adolescents (male and female) aged 13-18 years, and located in rural, poor households participating in a social cash transfer scheme, had a CESD-10 score >10. There are no similar data for the GAD-7. The Zambia Global School Health Survey from 2004 found, amongst a similarly aged study population (89% were 13 years and older), that 51.6% felt sad or hopeless every day during the two weeks prior to the survey, and that 31.4% of male respondents had contemplated suicide at least once as adolescents (WHO et al., 2004). While this suggests that mental health challenges are prevalent for many young people in Zambia, for the study participants, this burden appears to be more severe.

> ***"Especially when you are in the street, in the community. You are having fun with your friend. You are going somewhere. You'll hear, or maybe if they see someone that is gay--there are those that are very feminine--even when you are passing, you'll hear them pass horrible comments and be threatening. It really hurts me." (gay male, 22 years, Solwezi-- IC_SU07)***

Participants were very sensitive to negative talk or "the bad names" in their surroundings, something that challenged their emerging sense of a positive self. Other causes of emotional distress included loneliness and isolation, not having partners, or being rejected in relationships, as the following examples describe.

> ***"Okay, sometimes what made me to be feeling, like, I am lonely it's because of..uhmm..when I started thinking about the way that I am, I was reaching to an extent to say, in this world maybe I am the only person. So that was making me feel very lonely, to say..ahhh..'Why am I the only person who is like this, and why me?' So I was more, like, I can't be with anyone because of the way I am. It's, like, against the law. Yeah, so I was feeling very lonely on that one." (bisexual male, 22 years, Kapiri Mposhi-- IK_SU18)***

> ***"There are times when I have had ups and downs in my relationship. I am talking about the emotional break down where you are dating this person and before long, because of maybe the impact that they have from the family, their families and relatives, they end up dumping me and probably going out with a woman. There are all those emotional issues that come in." (gay male, 23 years, Livingstone-- ILV_SU06)***

Having social connections, whether as friends or as romantic attachments, are important in these young people's lives (as they are for all young people). As already noted, making such connections is a critical step towards self-knowledge and acceptance. Not having these connections or being rejected can lead to *"emotional break down"*.

For some participants, they have experienced the signs of more serious mental stress, including depression, although never formally diagnosed as such.

> ***"There are times when you get depressed, but I don't know if its depression because I am not a psychiatrist. You don't want to eat anymore, nothing..nothing feels right. You don't enjoy your life anymore, nothing feels right. It just feels everything..it just doesn't add up anymore." (gay gender non-conforming, 21 years, Kapiri Mposhi-- IK_SU16)***

Other participants described problems with anxiety and related challenges, such as insomnia.

> ***"I just have that insomnia I just can't. I might be looking okay right now but I am dying inside. I don't know why but I just can't sleep. I can't. No matter how hard I try. In the afternoons, yes, but in the night, I can't." (gay male, 22 years, Livingstone-- ILV_SU14)***

> ***"I had a bad negative part in me..ah..mentally. I have been disturbed, emotionally disturbed. I can see a group of guys talking and I'll be anxious. So I'll be afraid just wondering, what are these people talking about, are they talking about me or are they talking about that incident that happened in school." (gay male, 22 years, Lusaka-- IL_SU09)***

In these examples, anxiety (including insomnia) was linked to fears about whether or not others knew about one's sexuality (*"people were all over suspecting stuff"*) or in relation to a previous traumatic experience (*"that incident that happened in school"*).

Some participants described experiences with suicidal thoughts and suicide attempts, although far fewer than those who disclosed similar experiences through the survey. These were among the more serious and troubling findings from the interviews, as the following examples illustrate:

"The time I wanted to kill myself I used to have a lot of negative thoughts. By that time I was young. I was 18 years, somewhere there [the participant was 22 at the time of the interview]. So my thinking was, like, why am I like this while everyone in the word is different, yes? I am a male, now why do I have sexual feelings for my fellow guy who has feelings for girls? I used to question myself [...] So I thought instead of loading myself and overthinking, it's better if I go and kill myself, yeah. But thank God I am still alive and I have come up with this solution to say there is a purpose, that's why I am here." (gay male, 22 years, Kapiri Mposhi-- IK_SU20)

"Okay, when the incident happened of my friends who are not gay, knowing that I am gay, through a friend who is gay as well, I was, like, 'Oh my gosh what am I going to do?' Okay? I almost reached an extent whereby if this gets to my parents, what will happen? I would rather just commit suicide and leave everything to almighty God, yes? That's what I..those were my thoughts. I would rather commit suicide because if it just reaches to my family, how are they going to look at me? And how are they going to tell the people that surrounds them about me?" (gay male, 21 years, Solwezi-- IS_SU18)

"The first time that I thought of committing suicide was in high school because I just couldn't take the bullying anymore. I couldn't take it. My grades were dropping because of what people were saying to me. I couldn't study anymore. I couldn't take it. Everything was just not making sense." (gay gender non-conforming, 21 years, Kapiri Mposhi-- IK_SU16)

Isolation and self-doubt; fear of discovery of sexuality and of compromising family or community ties or reputations; relentless bullying or verbal stigmatisation; and perceptions of no release from these pressures, led to suicidal thoughts. Few had sought professional support for fear of having to disclose their sexuality (those who did gave other explanations). Most were persuaded to move forward by friends, people in their social networks, or, as in the first example above, through their own self-determination.

5.5. Coping with mental health, recovery and resilience

While participants narrated experiences of different degrees of mental stress, they also described different strategies to cope with their situations (mediating actions) as well as different ways to maintain strength and resilience (moderating influences). A number of these were positive and arose from developing different progressive or affirmative coping habits or behaviours as ways of improving their mental states. Other strategies were different, including social withdrawal (staying alone), self-neglect, taking alcohol, or, in rare instances, thinking about or becoming physically violent.

Positive mediators and moderating influences

On the positive side, the strategies ranged from confiding in or seeking support from friends or (less often) family members, drawing on their Christian faith, self-care activities (hobbies, sports), withdrawing from or avoiding situations that caused them stress, thinking about the future, and, through self-reflection, recovering their positive outlook and re-affirming their identities. Some participants, as illustrated below, spoke about the role of friends or family members for emotional support and recovery:

"After sitting alone and figuring out the bad mental health, I usually go to my cousin. We have a talk. She makes me laugh and I get back on track because she's my, I'll say, she's my day one bestie." (bisexual male, 22 years, Lusaka-- IL_SU12)

"My friends help me out a lot. Sometimes I'll just receive a call. I like watching football, playing football, basketball. So you'll find that my friends will call asking me why I didn't show up for training. And they'll come and visit and we will go out to watch football. And that helps me because my mind gets occupied, and I forget about my troubles. I feel better." (gay male, 22 years, Solwezi-- IS_SU05)

Belonging to a group, or social network, was another strategy. Furthermore, social groups acted as sources of information on how to protect oneself from negative sentiments and experiences in the community (functioned as moderators, for example).

"Okay, what makes me to have good mental health is...it's because, as I have told you, that sometimes back, I came to understand myself, yes I came to understand myself and came to know friends who are like me who...okay, who can make me be...okay, can make me think that I'm a normal person, yes and that I belong to the society I'm in. " (gay male, 22 years, Chipata-- IC_SU09)

For this young man, his social network gave him the strength to feel normal and to belong in his context, to find affirmation and acceptance, and to draw on these to maintain his mental health.

Participants also described how their religious faith helped them to recover from their challenges:

"I'll just try and run away from it, to stop having the BP [blood pressure] or the heartburn, and of which you want to know the way? I'll just go to church...When I go to church, I will get the Message. The pastor there, yah, the Word will cool me down." (gay male, 23 years, Lusaka-- IL_SU08)

"I feel if it's a heavy load for me to..ahhh..talk to someone, or for me to handle it myself, I am a fully grown, fledged Shield and Armour Christian. And I will always make it as my last and first resort to take it to the Lord in prayer...And I always make sure that by the time I am done praying, just taking it to God, it has to go, that bad mental health has to go." (gay male, 22 years, Lusaka-- IL_SU18)

Religious faith had a cross-cutting importance in many of these young men's lives, from helping them to understand and accept themselves; through church-going, to maintain their sense of family and community participation and acceptance; and, in these examples, as ways of limiting the negative effects of mental stress.

Self-care was also a strategy that was used for dealing with mental health challenges. Self-care included playing sports, listening to music, watching movies, spending time on social media with friends, or maintaining a good diet, as the following examples show:

"Ahhh..I keep up with..ahhh..the good healthy, you know, diet that probably gives me the best of my brain to function properly. " (gay male, 23 years, Chipata-- IC_SU14)

"I just get my bag and go play football. Sometimes I go to the ground and [just] watch how people are playing football. " (gay male, 23 years, Livingstone-- ILV_SU08)

Avoiding people or situations that led to mental stress was also one of the ways in which study participants coped, as well as finding ways to stay busy or distracted.

"When things trouble me and I start having negative thoughts, like I want to commit suicide, I usually..I don't associate with friends that will make me get to such a place. So what I used to do was stick to myself with my studies. I would leave them and stick to my studies." (gay male, 22 years, Kapiri Mposhi-- IK_SU20)

"I put more effort on my academics, so that works as my support. I try by all means to pass so that it adds as a shield upon myself." (gay male, 20 years, Solwezi-- IS_SU03)

The positive mediating value of finding a safe personal space and having a productive focus as way to avoid negative mental health influences is evident for these two young men.

Furthermore, the ability of young MSM to respond to stresses was based on their personal conviction and hope that things would be better in future (an important moderating influence):

"Me, I'm a strong person, yes, and I believe in myself because I've got hope for tomorrow. So I know tomorrow, tomorrow I'll be someone. And I don't want to let my family down because of, because of the way I am. I know my family has got a lot of hope for me, yah." (gay male, 22 years, Chipata-- IC_SU09)

Closely related to hope for the future, was maintaining a positive attitude in the midst of difficult situations (another moderating influence):

"Because..ahhh..I feel, when I realize to say that's the road I am headed to, I am headed to depression land, I will pull myself out. I just have to pull myself out because I know the impact that depression has." (gay male, 22 years, Lusaka-- IL_SU18)

Self-introspection was also essential as an enabler or moderating influence for better or improved understanding of oneself, and for the development of a stronger determination in dealing with the mental health effects of a difficult and unpredictable social environment as the following participant explained:

"There is never, it's never too late to score a goal. Even at the last minute, you can score a goal. So if a problem comes to me, or maybe I fail something, I just don't have to give up then. There is always a light at the end of the tunnel. I believe that. I strongly believe that there will always be a way, somewhere, somehow. I don't know how and when, but there will always be. There is hope in front of me. " (bisexual male, 22 years, Lusaka-- IL_U08)

As all of these examples show, there was a broad range of strategies, behaviours and attitudes both for limiting the negative effects of mental stress when it was severe, and to more generally build strength and resilience to prevent or avoid mental stress. Their range speaks to the depth of personal resources or survival mechanisms many young MSM acquire and maintain in Zambia, particularly in the absence of other resources for assistance and support such as mental health services.

Other mediators or coping mechanisms

Other approaches for coping with mental health challenges included alcohol or drug use. In the survey, alcohol and drug use practices were measured using the AUDIT and DUDIT scales. The results are shown below.

Table 4: Alcohol and drug use

Alcohol use	N (%)	Drug use	N (%)
Yes	42 (74%)	Yes	33 (59%)
AUDIT >10	11 (26%)	DUDIT >10	3 (10%)
>15	7 (17%)		
>20	10 (24%)		

Three-quarters of participants (74%) disclosed drinking alcohol at various frequencies (from less than monthly to daily). Alcohol use by men in general is high in Zambia with the country having one of the highest per capita consumption rates on the African continent (WHO, 2018). In other settings, an AUDIT score of >10 is considered problematic and requiring further assessment (WHO, 2001). Two-thirds of participants who drink exceeded this parameter. What is more concerning is the proportion of participants (24%) who take alcohol with a score >20 which indicates heavy drinking (6-14 drinks in one sitting) on a weekly to daily basis. While a number of participants disclosed drug use, for those that indicated which drugs they used it was largely cannabis or cough syrup containing codeine. Very few participants used these drugs with any elevated frequency (score of >10) according to the DUDIT results.

In the interviews, participants primarily spoke about using alcohol as a way to recover from stressful situations or, quite simply, to forget them, as the following examples describe:

"Sometimes it disturbs my mind such that I can't even do what I'm supposed to do. The best solution that I do, for me to get rid of that feeling, is to drink, such that I drink to the max. When I get high, that's when I'll get back to my normal state. I'll be laughing, dancing, chatting with other friends and all that. But when I'm sober minded, it's something else." (gay gender non-conforming, 22 years, S0lwezi-- IS_SU16)

"Me, being gay, it's not allowed in the community here, so sometimes I would rather keep it to myself. I am hurting inside because I can't get a straight person and tell them that I have been denied by my boyfriend. How will they see me? And also it's a disgrace to my family. Maybe they can even report me. That's why I like keeping my pressures and stress to myself. I manage on my own to sort it out. That's why I said I just get drunk and forget. That's all." (gay male, 22 years, Solwezi-- IS_SU02)

While, according to the survey results, there may be high alcohol consumption amongst young MSM, what is important from these examples is what motivates drinking, particularly the need to release the mental pressures of day-to-day living when there are few other mechanisms for doing so.

Other participants spoke about self-neglect as a result of mental distress, including failing to do things expected of them or not eating.

"It affects me in a lot of ways. I fail to do my daily activities, like, I am not active. There are times whereby I have assignments I am not able to finish. It affects me because I won't read. It eats me up quietly. [...] It's just that I get frustrated and it really affects me badly. I stop just there and then. I'll stop reading. So it affects me badly when it comes to school." (gay male, 22 years, Livingstone-- ILV_SU14)

"I lose my appetite when I am upset. Sometimes I don't even drink water. When I am not okay, I just stay in my room. Even when I am called to eat I just stay in my room. I even go two days without eating whereby I start to feel weak." (gay male, 22 years, Solwezi-- IS_SU05)

Still others became anti-social to friends or family or simply isolated themselves:

"Okay, ahhh it affected me [the extended absence of his partner], ahhh in a way that I..I couldn't even, you know, like, feel like being with other people, being close to other people, like friends and all that. So I just felt that at this moment, I will just be isolated, you know, just be alone and that, you know. So yeah, it affected me so much." (gay male, 21 years, Solwezi)

"When I am alone, it's really bad for me. When I am alone, everything just turns bad. When I am

just alone, I don't know, something just clicks in my mind. Everything is off. I'll just be staring and my mum would be like [laughs]' Have you joined Satanism?' and I would be like, 'No!'" (gay male, 22 years, Livingstone)

In these examples, staying alone or being isolated increased the negative effects of mental stress.

Finally, some participants spoke about either a desire to be or having been violent as a result of mental stress.

"Sometimes I feel like hitting a person who is using sarcastic language to me or insulting me over who I am, yeah. I feel like I can fight that person. I can do anything to that person so that he can stop bragging about that sarcastic language at me." (gay male, 23 years, Solwezi-- IS_SU19)

Some of the data on physical and sexual violence reported earlier may also be related to coping with mental stress but the analysis could not make this link. Mental or emotional stress appeared to have been made worse through these other coping behaviours or negative mediators, with the exception of heavy alcohol use which, for those who discussed it, did not necessarily increase the weight of their mental stress but rather alleviated it (although it remains problematic nonetheless).

5.6. Seeking help and use of mental health services

While participants reported experiencing many stressful situations or mental health challenges, seeking support from any form of health care was rarely considered. This was due to a number reasons. Firstly, as many participants had specific views on mental health, as noted above, they did not consider their difficult experiences as mental health concerns for which they could or should seek assistance as this example explains.

"I think depression is one emotion whereby it comes and goes. People get depressed and they get over it. Then they get depressed, and then they get over it. So I thought there was no point of me trying to go get diagnosed." (bisexual male, 22 years, Lusaka-- IL_SU12)

Secondly, there are few mental health services in Zambia and none that are experienced with young MSM.

"So it's one of the things where, even if I feel depressed there's no…there's nothing, no therapy for depression in most of our clinics and most of our facilities. And so, with the depression part, you just need to make sure you pick things that will make you happy." (gay male, 23 years, Livingstone--ILV_SU06)

Thirdly, those that considered seeking assistance feared that health workers would stigmatise them.

"That comes again, the fear of the society stigma. You feel like, if I ask for help, or ask people here and there, they would say something bad to me. So I end up putting the problems upon myself. Maybe I can come up with solutions, yes?" (gay male, 20 years, Solwezi-- IS_SU03)

A very small number of participants had used health services for mental health support, though not disclosing why they sought this assistance. This included being treated for anxiety as a teenager, being hospitalised for a mental breakdown (linked to a relationship break up), or being treated as a result of a suicide attempt.

Finally, given the strength of negative cultural and religious attitudes towards homosexuality in Zambia, it could be expected that some participants had undergone 'spiritual' cures, usually in the form of intensive prayer sessions or processes of exorcising 'demons.' The following example describes what was a common experience for others:

"She [his mother] took a decision of me going for deliverance thinking that it was a demon, being like this. But still I just feel the same way. I don't know if it's because of the prayer that never worked or something but, nevertheless, I can't judge. I can't say my final answer on that one. That was what she did but still, I am still her son [laughs], still the same." (bisexual male, 20 years, Livingstone--ILV_SU10)

Some had done these things willingly, even out of a desire themselves to be rid of something that caused so much disturbance and stress in their young lives. Others had been compelled by families. Amongst many of these young men, however, rather than succeeding in the way that others had intended, these rituals instead strengthen their self-assurance regarding their sexuality.

5.7. Links to sexual health

This final component of the study explored whether poor mental health is linked to lower levels of sexual health, including higher-risk sexual behaviours and lower uptake of SRH services. The survey results on most recent sexual behaviour and HIV testing history are summarized below.

Table 5: Sexual behaviour, condom use and HIV testing.

Sexual behaviour	Total N(%)/Median (SD/ range)	Sexual behaviour/HIV testing	N (%)
Sexual contact past 6 months	54 (96%)	Use of alcohol/drugs during last encounter	18 (33%), 7 (13%)
Sexual contact--male only	39 (72%)	Had anal sex	47 (87%)
Sexual contact-- female only	2 (4%)	No condom use (n=47)	16 (34%)
Sexual contacts--both	11 (20%)	Know status (n=56)	51 (91%)
Age of partner (n=51)		HIV testing	
Median	23 (5.41, 16-42)	Past 6 months	46 (82%)
Transactional sex	13 (24%)	Disclosure at last sexual encounter	35 (65%)

All but two participants were sexually active in the six months preceding the study. The majority (72%) were active with men only, although one-fifth of participants (20%) had contacts with both males and females. The median age of their sexual partners was 23 indicating a predominance of aged-matched encounters. One-quarter (24%) had engaged in transactional sex, either receiving or offering something in exchange for sex. Alcohol had been used in one-third (33%) of sexual encounters, drugs much less frequently. Most participants (87%) had engaged in anal sex (role not specified) and one-third (34%) of this group had not used condoms. The most common reasons for not doing so were not having a condom at the time of the sexual encounter, personal preference or partner objection. Only two participants disclosed being on pre-exposure prophylaxis. Almost all participants (91%) knew their HIV status with most (82%) having been tested within the past six months. Finally, there had been a discussion of HIV status, with one or both individuals disclosing their status, in two-thirds (65%) of most recent sexual encounters.[12]

12 In comparison to the general population of young people in Zambia, these results are very significant where, for example, in 2016, only 55.4% have every been tested for HIV and only 32.6% in the past twelve months (MOH, 2019).

The theme of sexual health emerged during the interviews through discussions regarding relationships, particularly the need to be in a relationship or to have a sexual partner (not having a partner, or having relationships difficulties, including intimate partner violence, was a source of negative mental stress, as noted above). Most of these encounters required careful management of logistics and secrecy. The following example explains this difficultly:

> ***"We see from our friends, these men go and ask girls out saying, 'Lets go for drinks and then have sex.' And they say yes, and they go and have sex. But for us it's very, for me actually, it's a very, very big problem, a big challenge, yeah."*** ***(gay male, 22 years, Kapiri Mposhi--IK_SU20)***

In some cases, this difficulty was linked to sexual violence where one partner had forced another when, after all of the arrangements were made, that individual was "not in the mood" as he explained (IK_SU02). Only two participants spoke about sexual activity in relation to mental health. One simply stated,

> ***"Yah, yah, everybody knows, sex is a relief, yah."*** ***(gay male, 21 years, Solwezi--IS_SU02).***

A number of participants, in their narratives of self-discovery, spoke about their lack of information or initial misconceptions about sexual health, including believing that the risk of HIV infection only arose between males and females. Others spoke about their reluctance to use health services for any reason connected with their sexuality, including issues of sexual health, for fear of stigma or unwanted or forced disclosure of information to others. However, what was also clear was that many of them have used or been exposed to the growing number of HIV and sexual health interventions specifically addressing them, particularly given the high rate of HIV testing and knowledge of HIV status across all study locations.

Chapter 6
Discussion

Research in other settings has consistently shown that young sexual minority individuals, including young MSM, are acutely sensitive to stigma and prolonged exposure to this stress has serious negative influences on self-esteem and mental health (Russell and Fish, 2019). This also appears to be the case for young MSM in Zambia. The findings of this study have given an in-depth view of the challenging and stress-filled lives of this group of young people in Zambia and the effects this generates for their mental and sexual health.

The study makes an important contribution not only to addressing the considerable knowledge gap in Zambia regarding young sexual minorities and mental health but also to the broader literature on this topic that is expanding across the African continent. Mixed-methods approaches are few and yet remain crucial to understanding how young people, in moving from older adolescence to young adulthood, discover, understand and affirm their sexuality in both an intimate and a wider social context that is fraught with a considerable amount of physical, emotional and sexual risk. The study is among the very few qualitative, analytic accounts of the links between sexual identity, mental health and sexual health for young sexual minorities for the African continent.

Although initially developed for less complex contexts, the minority stress model had an important explanatory value in this study, particularly its ability to shed light on the influence of the social environment as a driver of different forms or external and internal harms or stresses that, when experienced at critical stages in sexuality development, have significant impacts on mental well-being. A complex sequence of interactions emerges from the data, linking the individual and the social, and the internal and external dimensions of self-discovery and personal and social identity formation during a period of important life transitions. The study participants had different ways of describing or accounting for the emergence or origin of their same-sex emotional or sexual desire. They also had different ways of affirming or claiming their positive selves. These stories emerge as a strong counter-narrative to religious or cultural explanations of homosexuality in Zambia (Phiri, 2017). They also challenge a prevailing view, in Zambia and elsewhere, of a symbiotic relationship between homosexuality and mental health challenges (Academy of Sciences of South Africa, 2015). None of the participants, in this study at least, described any form of serious mental distress or self-doubt about their sexual identity itself. Rather, the weight of distress was related to the profound, daily challenge of being gay or bisexual in the Zambian context.

The awareness and experience of sexuality-related stress begins early for the young participants, happening in parallel with their inner processes of self-discovery and acceptance. For some, the experience of this stress begins even before they are able to understand and articulate for the themselves the nature of their sexual or gender differences as children, adolescents or young adults. While such internal-external tension can occur more generally for adolescents and young people in other settings who eventually discover and affirm themselves as sexual minorities, what is different in the accounts of these Zambian participants is the extent of the negative and marginalising forces that surround them, including within their immediate families (Hatzenbuehler and Pachankis, 2016). Childhoods are difficult times for many in Zambia given the effects of complex health, social and economic challenges; however, for this particular group of young people there is the added dimension of social judgement and marginalisation, including from siblings and parents, sometimes long before they themselves understand or come to accept what prompts these reactions from others (Kilburn et al., 2018; UNICEF, 2012).

Negative or traumatic experiences at this stage of the life-course can have both immediate and enduring mental health consequences far into the future (Hatzenbuehler and Pachankis, 2016; Mustanski and Liu, 2013; Pachankis and Bernstein, 2012). The study has identified a distinct burden of mental health concerns (largely from a non-diagnostic perspective) for a majority of young gay and bisexual men in Zambia, including linked issues of depression and anxiety, and more serious evidence regarding suicidal thoughts or attempts. In the absence of other opportunities for support, including mental health services, the young participants have adopted a number of strategies for coping with or diffusing both the forces that lead them towards mental distress as well as to 'pull themselves out' from such distress when they experience it. These things act as positive mediators and moderating influences according to what the participants described. On the one hand, they clearly provide some immediate relief to stressful events, including physical, emotional or mental traumas. On the other, to the extent that they comprise resilience, they provide more general ways for these young people to either avoid negative stresses or experiences (staying at home to enjoy movies, reading or music, for example, rather than risk the social environment), or to significantly reduce their negative effects (Fergus and Zimmerman, 2005).

Not all strategies were positive, however. The high consumption of alcohol, and the frequency of physical and sexual violence amongst friends and sexual partners, call out for further exploration especially given the young age of the study participants and the potential for enduring consequences as such individuals age (Dyar, Newcomb, Mustanski, 2019; Plöderl and Tremblay, 2015). Other studies on the continent with MSM populations (noted in the introduction) have identified important interactions between violence, including intimate partner physical or sexual violence, excessive alcohol use, and psychological distress, including depression, for example. The findings of this study suggest that there may be similar interactions amongst young MSM in Zambia, although not explored in greater depth given the reluctance of participants to share more about these experiences during the interviews. More investigation is needed, then, to understand these pathways and to find alternatives for the function of high alcohol consumption as a release mechanism, and to further understand and prevent violence.

By many accounts, the capacity of the health system to respond to the mental health needs of the population in Zambia is under-resourced and inadequate for the population (Mayeya et al., 2004). While there are efforts to address this, including with new legislation, progress is slow and must push against the many other competing priorities for health services.[13] In one sense, then, young MSM are one amongst many other groups in Zambia with unmet mental health needs; however, such counterpart groups will not necessarily share the specific barriers linked to sexuality-related stigma and discrimination and the reluctance this causes for young MSM to even consider seeking assistance from public sector mental health services should they have been or become available. The gap is the greatest for these individuals at their lowest points when they contemplate or attempt suicide, having exhausted all other ways of trying to cope with or recover from traumatic experiences. As the participants themselves describe, having reached out to friends, drawing on their religious faith, being fortunate to encounter counsellors or other concerned and sensitive health care workers (although without sharing the cause of their distress) filled this gap at crucial points.

12 The *Mental Health Act*, 2019 is now in place. Additionally, both the Adolescent Health Strategy 2017-2021 and the *National Health Sector Strategic Plan* 2017-2021 identify improving mental health for adolescents and young people as important population health concerns (MOH, 2017a,b).

The study results are less clear on links between mental health and sexual health. Given that this was a first research effort with this young population, the research team was reluctant to probe issues of sexual behaviour too deeply through the in-depth interviews as, for many participants, it was their first time being asked searching questions about their sexuality and their life experiences. Participants were recruited in part through social networks linked to existing LGBTI organisations and services. These young men were more likely than others, then, to have benefited from information and services regarding sexuality and sexual health, meaning that their knowledge and practices regarding HIV-related sexual risks may have been more resilient to negative mental health influences. Nevertheless, some important issues emerged for further exploration, particularly in relation to how these young men discover and explore their sexuality in the context of so many risks and potential harms. As the participants described, finding sexual partners and forming relationships is very important as a way of both exploring and affirming their emergent sexuality, and as a way of buttressing themselves against the many socio-environmental forces marshalled against them. Partners are difficult to find and maintain in this environment, and sexual encounters are difficult to arrange with any predictability, particularly when a young person has no income and lives at home with family. Data on inconsistent condom use, for example, must be interpreted with this context in mind. While the study suggest that there are some issues to address in this regard, it is important to consider the challenges of the larger context for these young men and how this affects the choices they make in their sexual encounters.

6.1. Limitations

The study is subject to some important limitations:

- As already noted, some participants were recruited through social networks linked to existing LGBTI organisations and services. As a first effort to reach this population, this was the more practical way to proceed. The group of study participants may not, therefore, be fully representative of all young MSM in the country, particularly those that may not yet have benefited from such interventions and may, for example, be less self-assured or resilient to the difficulties of their social environment.

- The use of peer interviewers has advantages and disadvantages. In this study, some peer interviewers had limited previous experience with qualitative interviewing methods (some had participated in studies using administered questionnaires), a particular risk to data quality given the sensitive topics addressed in this study. However, in this first attempt to reach a largely hidden study population, this approach proved highly successful.

- A number of participants spoke in different languages throughout the interviews, frequently switching between English and one of the many Zambian languages. Context and nuance are sometimes diminished through translation of such narratives, particularly with regard to topics such as sexuality or sexual practice where there may be no specific linguistic equivalents between one language and another. While the English terms gay, bisexual, and MSM are used throughout the study, including for translations of quotations, they are not necessarily fully reflective of the variety of ways the study participants used to describe themselves, or to repeat how others had described them, in the different local languages in Zambia.

- Screening scales are a first, very initial step in a longer process of clinically diagnosing mental health disorders. Therefore, a conclusion about whether a true burden of depression or anxiety exists in the study population cannot be definitively made. Nevertheless, the combination in this study of screening scale scores and personal testimonies provides sufficient motivation for additional investigation to more clearly determine this.

- Mental health or alcohol use screening tools are liable to cultural bias (even after validation), particularly where terms like 'feeling sad' or 'depressed' have shifting, socially situated, as opposed to stable or empirical, meanings (Sweetland, Belkin, Verdeli, 2014). They may also be insensitive to larger issues of context, particularly structural characteristics (Pilgrim and Bentall, 1999). These are further limitations, then, on their value as clinical or empirical indicators of mental health burdens.

Chapter 7

Implications for Law, Policy and Programmes

The findings suggest that supporting the mental health needs of the study participants would benefit from a socio-ecological approach, as the challenges they face emanate from individual, family, community and state level factors (Mutumba and Harper, 2015). A number of suggestions were offered by participants themselves as to what could change to either prevent mental health challenges or to provide further support to those who experience them. They fell into two broad categories: addressing individual needs; and, improving the social environment. They are included amongst the items listed below.

Programmatic implications from the research to address individual needs include:

- Make available trained mental health providers (psychological counsellors, for example) in different settings that can respond to the specific challenges of young gay or bisexual men as well as other sexual minority groups;
- Make counselling support accessible--through 'LGBTI friendly' clinics, for example, or through help-lines or other modalities, including social media;
- Undertake educational and awareness activities within current sexual health interventions for young gay or bisexual men to improve knowledge and understanding regarding mental health concerns;
- Integrate mental health support into existing HIV and sexual health services for young gay or bisexual men and other key populations;
- Build the capacity of counsellors and other mental health providers working with young sexual minorities to identify and address physical and sexual violence, for both individuals who experience violence as well as for those that perpetuate it;

- Similarly, build the capacity of counsellors and other mental health providers working with young sexual minorities to identify and address heavy alcohol use including dependence;
- Improve technical and operational support for social networks and 'safe-spaces' where young gay or bisexual men can find relief and support from the day-to-day stress of coping and surviving in their difficult social environments;
- Support different activities that bring young sexual minorities together, such as sporting or cultural activities, to strengthen social bonds for mutual caring and support;
- Address issues of poverty, unemployment, and lack of educational opportunities so that these young people can advance towards independence and to having more agency to control their social environments (including through moving away from the family home).

As one participant stated:

> ***"If they [LGBT people] get the support, love and the acceptance that they crave, it would help them not to get depressed and their mental health would be very stable. Because that's the thing we people lack most in the society. We lack that because if we are given all of it, and we feel accepted, loved, and we get the full support that we need, I can assure you that nobody will be having any mental health problems."*** ***(IS_SU03)***

With regard to improving the law and policy environment, the research findings suggest the following:

- Develop and implement policies and programmes to eliminate all forms bullying and violence in schools, universities and other educational settings, with a particular focus on abuse related to sexual or gender diversity;
- Improve social tolerance and understanding through different forms of education and awareness about sexual orientation and gender diversity (including full implementation the country's commitments regarding comprehensive sexuality education);
- Accelerate the implementation of the regulatory and programmatic components of the Mental Health Act of 2019 in order to make mental health services widely accessible through the public sector;
- End stigma and discrimination in public health services so that all individuals can be freer to use existing services;
- Remove laws against same-sex sexual behaviour.

In the words of another participant:

> ***"Okay, what we would want is for the government to give us rights and to help us in many ways because we are at risk of being mistreated, yah. Anything bad can happen to us. So I would say government, in short, should help us by making facilities so that we can be free, like as in our [LGBT] movement, in helping ourselves, and where to ask questions, where we can be properly assisted. So only the government can help us, that's what I think."*** ***(IK_SU01)***

Chapter 8

Areas for Further Research

As a first foray examining social determinants of mental health and the links to sexual health for young MSM in Zambia, the study findings point to a number of issues and priorities for further research to explore. These include:

- Exploring the determinants of heavy alcohol consumption, the specific effects on mental and sexual health, and alternatives for mitigating the use of alcohol to manage sexuality-related stress;
- Exploring the determinants of physical and sexual violence amongst young MSM and using the results to identify strategies for mitigating and preventing these problematic behaviours;
- Undertaking a clinical study to further assess the frequency and intensity of potentially treatable mental health disorders amongst young MSM;
- A longitudinal analysis to determine how, for example, affirmation and resilience regarding sexually identity evolve over time, particularly as socio-economic pressures linked to conforming with dominant heterosexual norms may intensify and mental health stress may increase; and,
- Operational research to explore effective, context-specific interventions at structural, interpersonal and personal levels to improve mental and sexual health for young sexual minorities in Zambia.

Chapter 9

Concluding Remarks

The study has shown how young MSM face unique risks in their social environment linked to stigma, discrimination, and the constant threat of violence as a result of what their family members, friends, fellow learners, teachers, pastors and others believe and act out regarding their differing sexual orientation or sexual identities. These risks, and the experiences they generate, have emotional and physical consequences which can be particularly acute for young people as they move through an important period of discovery about themselves, and as they have elevated sensitivity and vulnerability to the social forces that surround them and that shape their development towards adulthood during this formative stage. Many of the individuals and institutions, such as parents or schools or health care workers, that are meant to support young people along this pathway instead reject the young participants, leaving them exposed to a range of mental health challenges that they must struggle to address in the absence of mental health services, as well as the support of family or friends in many instances.

However, despite this situation, these young people find unique strengths in themselves and in their social networks to gain and sustain resilience, and to maintain hope that their situation will improve in the future that awaits them. To one degree or another, they manage to work out a meaningful social existence in a highly complex and risk-prone social context. The situation is precarious for many, however, and bears all the markings, according to research in other contexts, of the potential of more serious mental and physical challenges as these young people move forward in their lives. There are opportunities to prevent these complications, fortunately, including building on the growing foundation of sexual health programming. Further efforts need to simultaneously address societal level issues, such as developing mental health systems that are responsive to the needs of the spectrum of diverse young people; deal with institutional related matters, such as stigmatisation and exclusion at family and community level, or bullying and shaming in schools; and, at the same time, support and strengthen the coping, recovery and resilience mechanisms which many of the study participants have adopted, if not perfected. There is a further need, albeit more complex and longer term, to address structural factors, such as the legal environment and social-cultural and religious norms which, collectively, drive much of the sexual minority stress the participants experience.

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Annexes

Annex A: Questionnaire and Interview Guide

Interview Code: ☐

Self-Administered Questionnaire and Interview Guide (Version—16.12.18)

Introduction

You have been invited to be a participant in this research project. Your participation involves completing a confidential questionnaire and, afterwards, participating in an interview conducted by a research assistant. The questionnaire should take approximately 20-30 minutes to complete. The interview will last between 30-40 minutes. You will be invited to take a short break in between.

Before we get going, I would like to review the following information with you.

Informed Consent

The School of Public Health at University of Zambia and the Health Economics and AIDS Research Division at the University of KwaZulu Natal in Durban, South Africa, are jointly conducting a research project that is exploring the links between mental health and sexual health for young men-having-sex-with-men in Zambia.

The research is being done to improve the understanding of mental health and sexual health challenges for young men between the ages of 18 and 24 years who consider themselves either gay, bisexual or as someone who has sex with other men.

You have been invited to participate in this research project as someone who fits these criteria. You will be asked to complete a confidential questionnaire and then to participate in an interview with a trained research assistant. We are not asking for your name or any other identifying information. Everything your share with us will be kept confidential and not shared with anyone else outside of the research team.

You are being asked to allow the interviewer to digitally record the interview. This helps us to keep a record of everything you've said so we can get the most from your contribution to our research. From the recording, we will prepare a written transcript. No one except the researchers will have access to the recording or the transcript of the interview. All recordings will be deleted when the study is over.

There is no direct benefit to you from participating in this research project. We hope that the findings from the research will help to improve the understanding of the challenges people like you face in Zambia so that better laws, policies and services can be put in place.

Taking part in this study is your choice. You may choose not to answer any question on the survey or during the interview. You can also stop the interview and leave at any time.

If you want to know more about your rights as a research participant, or if you have any questions or concerns about your participation, please contact the University of Zambia Biomedical Research Ethics Committee or the University of KwaZulu Natal Biomedical Research Ethics Committee at +27 031 260 04769 or BREC@ukzn.ac.za

Do you have any questions?

Before we continue, I would like to ask you some questions to determine that you are eligible to participate in the study.

1. How old were you on your last birthday?

2. Do you consider yourself as:
   - ☐ Male
   - ☐ Female
   - ☐ Transgender
   - ☐ Other (please explain):

3. What was your sex at birth?
   - ☐ Male
   - ☐ Female
   - ☐ Other (please explain):

4. People are different in their sexual attraction to other people. Are you sexually attracted to men?
   - ☐ Yes
   - ☐ No

5. Are you sexually attracted to women?
   - ☐ Yes
   - ☐ No

6. [If answered yes to both] Which are you most often sexually attracted to?
   - ☐ Men
   - ☐ Women
   - ☐ Both
   - ☐ Not sure

7. Would you describe yourself as:
   - ☐ Gay/homosexual
   - ☐ Bisexual
   - ☐ Heterosexual
   - ☐ Other (please explain):
   - ☐ Not sure

[Interviewer: If <18 or >24 years and/or answer to question 4 is NO, PARTICIPANT IS NOT ELIGIBLE.]

Thank you very much. Base on your replies, I can confirm that you are eligible/not-eligible.
[If not eligible, explain why and thank participant. If eligible, continue with next questions.]

Do you agree to have the interview audio recorded?

☐ YES

☐ NO

Do you agree to participate in the study?

☐ YES

☐ NO

Signature of Research Assistant:

Date/time:

Self-Administered Questionnaire

Please fill out this questionnaire by yourself. If you need help to understand a question or a possible answer, please ask the Research Assistant.

When you have finished, please check that you have completed each question. Then, place the completed questionnaire in the envelope, close it, and return it to the Research Assistant.

For most questions, you will be asked to choose one answer.

For some questions, you will be asked to choose more than one answer.

If you make a mistake, please make the correction clear. Cross out the incorrect answer and then put a circle around the correct answer.

Please begin.

A. Participant information

1. In which country were you born?

2. What is the highest level of school you attended?
   - ☐ Primary
   - ☐ Secondary
   - ☐ Post-secondary
   - ☐ I have not attended school

3. What best describes your current employment status?
   - ☐ Employed full-time
   - ☐ Employed part-time
   - ☐ Self-employed
   - ☐ Not employed
   - ☐ Full-time student

4. What is the approximate amount of your monthly income (in Kwacha)?

5. What is your current living situation?
   - ☐ I live alone in a place that I rent/own
   - ☐ I share a place that I rent/own
   - ☐ I share a place that is rented/owned by someone else
   - ☐ I live with my family
   - ☐ I am homeless
   - ☐ Other (please explain):

6. What is your primary spoken language?
   - ☐ English
   - ☐ Other (please explain):

7. What religion are you?

- ☐ Christian
- ☐ Muslim
- ☐ African traditional
- ☐ Jewish
- ☐ Rastafarian
- ☐ I am not religious
- ☐ Other (please explain):

B. Relationship status

1. What is your current social status?

- ☐ Single **(Go to Section C: Alcohol Use)**
- ☐ In a relationship
- ☐ Married
- ☐ Separated/divorced
- ☐ Widowed
- ☐ Other (please explain):

2. If married or in a relationship, how long have you been with your partner/spouse? Months____ Years_____

3. Is your partner/spouse:

- ☐ Male
- ☐ Female
- ☐ Transgender
- ☐ Other (please explain):

4. Are you currently living with your partner/spouse?

- ☐ Yes
- ☐ No **(Go to Section C: Alcohol Use)**

5. How long have you been living with this person? Months____ Years_____

C. Alcohol Use

These next questions ask you about your use of alcohol. Remember, your answers are strictly confidential so please answer as best you can. Place an **X** in the one box that best describes your answer to each question.

1.	How often do you have a drink containing alcohol?	Never **(Go to Section D: Drug use)**	Monthly or less	2-4 times per month	2-3 times per week	4 or more times per week
2.	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 0r 6	7 to 9	10 or more
3.	How often do you have six or more drinks on one occasion	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
4.	How often during the last year have you found that you were not able to stop drinking once you had started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
5.	How often during the last year have you failed to do what was normally expected of you because of drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6.	How often during the last year have you needed a first drink in the morning to get you going after a heavy drinking session?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7.	How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8.	How often during the last year have you been unable to remember what happened the night before because of your drinking?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9.	Have you or someone else been injured because of your drinking?	No		Yes, but not in the last year		Yes, during the last year
10.	Has a relative, friend, doctor, or health care worker been concerned about your drinking or suggested you cut down?	No		Yes, but not in the last year		Yes, during the last year

D. Drug use

These next questions ask you about your use of drugs other than alcohol. Remember, your answers are strictly confidential so please answer as best you can.

By drugs, we mean any of the following:

List of drugs

Cannabis	Amphetamines	Cocaine	Opiates	Hallucinogens	Solvents/ inhalants	Other
Marijuana or Dagga	Cough syrup Crystal meth Ritalin (Methylphenidate)	Cocaine	Heroin Opium	Ecstasy PCP	Petrol Gas Glue Methylated Spirits	Please write:

Place an X in the one box that best describes your answer to each question.

1.	How often do you use drugs other than alcohol?	Never **(Go to Section E: Experience of Violence)**	Monthly or less	2-4 times per month	2-3 times per week	4 or more times per week
2.	In the past twelve months which drugs have you used?	Please tick all that apply in the **List of Drugs** above.				
3.	Do you use more than one type of drug on the same occasion?	Never	Monthly or less	2-4 times per month	2-3 times per week	4 or more times per week
4.	How many times to you take drugs on a typical day when you use drugs?	0	1-2	3-4	5-6	7 0r more
5.	How often are you influenced heavily by drugs?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
6.	Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
7.	Has it happened, over the past year, that you have not been able to stop taking drugs once you started?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
8.	How often during the last year have you taken drugs and then neglected to do something you should have done?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
9.	How often during the last year have you needed to take a drug the morning after heavy drug use the day before?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
10.	How often during the last year have you had guilty feelings or a bad conscience because you use drugs?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily
11.	Have you or someone else been hurt (mentally or physically) because of you used drugs?	No		Yes, but not in the last year		Yes, during the last year
12.	Has a relative, friend, doctor, or health care worker been worried about your drug use?	No		Yes, but not in the last year		Yes, during the last year

E. Experience of Violence

These next questions ask you about experiences of violence or being hurt. Some of them may be disturbing to you. Please take your time and answer each question as best you can.

1. In your lifetime, how many times has anyone ever physically hurt you, such as hit or choked you, or threatened you with a knife or other weapon?
   - ☐ No, never **(Go to question 7)**
   - ☐ Once
   - ☐ 2-5 times
   - ☐ 6-10 times
   - ☐ More than 10 times

2. The first time someone physically hurt you, how old were you?

3. The first time this happened, what was your relationship to the person who did this to you?
   - ☐ Relative
   - ☐ Friend
   - ☐ Sexual partner
   - ☐ Police/military/authority figure
   - ☐ Neighbour/person in the community
   - ☐ Other (please explain):
   - ☐ Not sure/don't remember

4. The last time this happened, what was your relationship to the person who did this to you?
   - ☐ It only happened once
   - ☐ Relative
   - ☐ Friend
   - ☐ Sexual partner
   - ☐ Police/military/authority figure
   - ☐ Neighbour/person in the community
   - ☐ Other (please explain):
   - ☐ Not sure/don't remember

5. Any of these times this happened, do you think it was because you have sex with men?
   - ☐ Yes
   - ☐ No
   - ☐ Not sure

6. Any of the times this happened to you, did you try to get help? (select all that apply)
   - ☐ Yes, I discussed it with a family member/friend
   - ☐ Yes, I discussed it with a health care worker
   - ☐ Yes, I reported it to the police
   - ☐ No, I never told anyone about it
   - ☐ I don't remember

7. In your lifetime, have you ever physically hurt someone else such as hit or choked, or threatened with a knife or other weapon?
   - ☐ No **(Go to Question 11)**
   - ☐ Yes

8. In your lifetime, how many times have you done this to someone?
   - ☐ Once
   - ☐ 2-5 times
   - ☐ 6-10 times
   - ☐ More than 10 times

9. In the last 12 months, how many times have you done this to someone?
   - ☐ I did not do it in the past 12 months.
   - ☐ Once
   - ☐ 2-5 times
   - ☐ 6-10 times
   - ☐ More than 10 times

10. Please think about any time that you have ever done this to someone. Who did you do this to?
    - ☐ Relative
    - ☐ Friend
    - ☐ Sexual partner
    - ☐ Boyfriend
    - ☐ Police/military/authority figure
    - ☐ Neighbour/person in the community
    - ☐ Other (please explain):
    - ☐ Not sure/don't remember

11. In your lifetime, has anyone ever physically forced you to have sex when you didn't want to?
    - ☐ No, never **(Go to Question 17)**
    - ☐ Once
    - ☐ 2-5 times
    - ☐ 6-10 times
    - ☐ More than 10 times

12. The first time someone physically forced you to have sex when you didn't want to, how old were you?

13. What was your relationship to the person who physically forced you to have sex the first time? If it was more than one person, what was your relationship with the person you remember best.

- ☐ Relative
- ☐ Friend
- ☐ Boyfriend
- ☐ Sexual partner
- ☐ Police/military/authority figure
- ☐ Neighbour/person in the community
- ☐ Other (please explain):
- ☐ Not sure/don't remember

14. The last time this happened, what was your relationship to the person who did this to you?

- ☐ Relative
- ☐ Friend
- ☐ Sexual partner
- ☐ Police/military/authority figure
- ☐ Neighbour/person in the community
- ☐ Other (please explain):
- ☐ Not sure/don't remember

15. Any of these times this happened, do you think it was because you have sex with men?

- ☐ Yes
- ☐ No
- ☐ Not sure

16. Any of the times this happened to you, did you try to get help? (select all that apply)

- ☐ Yes, I discussed it with a family member/friend
- ☐ Yes, I discussed it with a health care worker
- ☐ Yes, I reported it to the police
- ☐ No, I never told anyone about it
- ☐ I don't remember

17. In your lifetime, have you ever physically forced someone to have sex with you when they didn't want to?

- ☐ No **(Go to Section F: Mental Health)**
- ☐ Yes

18. In your lifetime, how many times have you done this to someone?

- ☐ Once
- ☐ 2-5 times
- ☐ 6-10 times
- ☐ More than 10 times

19. In the last 12 months, how many times have you done this to someone?

- ☐ I did not do it in the past 12 months
- ☐ Once
- ☐ 2-5 times
- ☐ 6-10 times
- ☐ More than 10 times

20. Please think about the most recent time that you have physically forced someone to have sex with you when they didn't want to. Who was the person you did this to?

- ☐ Relative
- ☐ Friend
- ☐ Boyfriend
- ☐ Spouse/wife
- ☐ Someone that I have sex with but do not consider a boyfriend
- ☐ Police/military/authority figure
- ☐ Neighbour/person in the community
- ☐ Other (please explain):
- ☐ Not sure/don't remember

F. Mental Health

These next questions ask you about your mental health. Please answer them as best you can. Place an X in the one box that best describes your answer to each question.

Please answer how often you have felt this way **during the past week**:

1.	I was bothered by things that usually don't bother me.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
2.	I had trouble keeping my mind on what I was doing.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
3.	I felt depressed.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
4.	I felt that everything I did was an effort.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
5.	I felt hopeful about the future.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
6.	I felt fearful.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
7.	My sleep was restless	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
8.	I was happy.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
9.	I felt lonely.	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)
10.	I could not 'get going.'	Rarely or none of the time (less than 1 day)	Some or a little of the time (1-2 days)	Occasionally or a moderate amount of the time (3-4 days)	All of the time (5-7 days)

Over the last 2 weeks, how often have you been bothered by the following problems?

1.	Feeling nervous, anxious, or on edge	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
2.	Not being able to stop or control worrying.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
3.	Worrying too much about different things.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
4.	Trouble relaxing.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
5.	Being so restless that it is hard to sit still.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
6.	Becoming easily annoyed or irritable.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)

7.	Feeling afraid as if something awful might happen.	Not at all (0-1 days)	Several days (2-6 days)	Over half the days (7-10 days)	Nearly every day (11-14 days)
8.	If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	Somewhat difficult	Very difficult	Extremely difficult

You may find these next questions disturbing. Please answer them as best you can.

1. Have you ever thought about or attempted to kill yourself?
   - ☐ Never
   - ☐ It was just a brief passing thought
   - ☐ I had a plan at least once to kill myself but did not try to do it
   - ☐ I had a plan at least once to kill myself and really wanted to die
   - ☐ I have attempted to kill myself but did not want to die
   - ☐ I have attempted to kill myself and really hoped to die.

2. How often have you thought about killing yourself in the past year?
   - ☐ Never
   - ☐ Rarely (1 time)
   - ☐ Sometimes (2 times)
   - ☐ Often (3-4 times)
   - ☐ Very often (5 or more times)

3. Have you ever told someone you were going to commit suicide, or that you might do it?
   - ☐ No
   - ☐ Yes, at one time, but did not really want to die
   - ☐ Yes, at one time, and really wanted to die
   - ☐ Yes, more than once, but did not want to do it
   - ☐ Yes, more than once, and really wanted to

4. How likely is it that you will attempt suicide someday?
   - ☐ Never
   - ☐ No chance at all
   - ☐ Rather unlikely
   - ☐ Likely
   - ☐ Rather likely
   - ☐ Very likely

G. Social Support

This next section asks about the amount of support you receive from your friends or your family when you need help. Place an **X** in the one box that best describes how you feel about each statement.

1.	There is a special person who is around when I am in need.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.	There is a special person with whom I can share my joys and sorrows.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
3.	My family really tries to help me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4.	I get the emotional help and support I need from my family.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.	I have a special person who is a real source of comfort to me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
6.	My friends really try to help me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7.	I can count on my friends when things go wrong.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
8.	I can talk about my problems with my family.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
9.	I have friends with whom I can share my joys and sorrows.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
10.	There is a special person in my life that cares about my feelings.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
11.	My family is willing to help me make decisions.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
12.	I can talk about my problems with my friends.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

H. Sexual orientation/identity

1.	Even if I could change my sexual orientation, I wouldn't.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.	I feel comfortable being someone who likes other men.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
3.	Homosexuality is as natural as heterosexuality.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4.	I feel comfortable being in places where there are other men like me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5.	Being around other men who like men makes me very uncomfortable.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
6.	I am comfortable discussing homosexuality in a public place.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7.	I feel comfortable being seen in public with someone who is openly homosexual.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

I. Most recent sexual experiences

This last section of the questionnaire asks about your most recent sexual experiences.

1. In the past six months, have you had sexual contact with a male?
   - ☐ Yes
   - ☐ No

2. In the past six months, have you had sexual contact with a female?
   - ☐ Yes
   - ☐ No

3. Which answer best describes when you last had sex with another male?
   - ☐ Never
   - ☐ Last 7 days
   - ☐ Last 4 weeks
   - ☐ Last 3 months
   - ☐ Longer than 3 months ago

4. The last time you had sex, how old was this person? Please give your best guess.

5. What kind of sex partner was that person?
   - ☐ Main sex partner
   - ☐ Casual sex partner
   - ☐ Someone I paid money or goods for sex
   - ☐ Someone who gave me money or goods for sex

6. Do you have a sexual relationship with this person, meaning you have had sex with this person on more than one occasion?
   - ☐ Yes
   - ☐ No

7. During the time you were having a sexual relationship with this person did you have sex with other people?
   - ☐ Yes
   - ☐ No

8. The last time you had sex with this person, what kind of sex did you have (check all that apply):
   - ☐ Anal sex
   - ☐ Oral sex
   - ☐ Mutual masturbation
   - ☐ Other (please explain):

9. If you had anal sex, did either of you use a condom?
   - ☐ Yes **(Go to Question 11)**
   - ☐ No

10. What was the main reason you **did not** use a condom?
   - ☐ Always use a condom
   - ☐ I didn't have one
   - ☐ I didn't have lubricant
   - ☐ I didn't think of it
   - ☐ I don't like them
   - ☐ My partner objected
   - ☐ I didn't feel at risk because I'm in a monogamous relationship
   - ☐ I was on Pre-exposure prophylaxis (PrEP)
   - ☐ My partner was on Pre-exposure prophylaxis (PrEP)
   - ☐ I was on HIV treatment
   - ☐ My partner was on HIV treatment
   - ☐ Other (please explain)

11. Did you or your partner drink alcohol before having sex?
   - ☐ No
   - ☐ Yes, I did
   - ☐ Yes, my partner did
   - ☐ We both did
   - ☐ Don't remember

12. Did you or your partner take drugs to get high before you had sex?
   - ☐ No
   - ☐ Yes, I did
   - ☐ Yes, my partner did
   - ☐ We both did
   - ☐ Don't remember

13. Do you know your HIV status?
   - ☐ Yes
   - ☐ No

14. When was the last time you were tested for HIV?
   - ☐ I have never been tested
   - ☐ More than two years ago
   - ☐ Within the past year
   - ☐ Within the past six months

15. With your latest sex partner, did either of you disclose your HIV status?
   - ☐ Yes – only I disclosed
   - ☐ Yes – only my partner disclosed
   - ☐ We both disclosed
   - ☐ No, neither of us disclosed

16. What is/was your partner's HIV status?
   - ☐ HIV-Positive
   - ☐ HIV-Negative
   - ☐ Don't remember
   - ☐ Don't know

Semi-structured Interview Guide

(Version—16.12.18)

Now I'd like to ask you some questions about how you describe yourself and what you think about your mental health. I'll explain some of these things as we go along. Are you comfortable? Do you still agree to continue? Do you still agree to let me record the interview? Please remember that you can decide not to answer any question I ask you or you can stop the interview at any time. Shall we begin?

[INTERVIEWER: Confirm that recording device is switched on. PLEASE READ OUT INTERVIEW CODE FROM PAGE 1 SO THAT IT IS RECORDED.]

A. Getting started, building rapport

[INTERVIEWER: Please take time during this section. Observe the participant to make sure he is comfortable. If he is not, try to find out why and address the issue. If it is the recorder, explain why it is necessary, i.e. so that we can get the most value from the experience the participant shares.]

Let's start by learning a little about you. Can you tell me something about yourself?

1. What was your family life like growing up? What was it like growing up in your community?

2. How do you see your life five years from now?

B. Self-concept, disclosure and experience of stress

Now let me ask you some questions about sexuality and what you think about your own sexuality. By sexuality I mean how you think and feel about yourself romantically and sexually in relation to other people and what you want people to think and feel about you.

1. How would you describe your sexuality? When did you come to know this about yourself? What have been some of your experiences since that time?

2. How important is your sexuality to you as a whole person? *[Probe: most important thing, least important thing, other things that are more important (i.e religion, profession, cultural identity, etc.)]*

3. How comfortable are you with who you are? *[Probe: reasons for being comfortable/confident; reasons for being uncertain or not liking themselves; changes over time]*

4. Have you told anyone about your sexuality? Who have you told and what was their reaction? *[Probe: friends, family, others; different reactions for each; first time disclosed and what happened; plans to disclose in future; if not told, why]*

5. How do you control who knows or doesn't know about your sexuality? What kinds of things do you do? *[Probe: deny sexuality, have girlfriend, become hostile/unfriendly if someone suggests, etc.]*

6. Have you ever had any bad experiences because of someone suspected something about you or finding out about your sexuality? Please tell me about some of those experiences and how they affected you.

C. Mental health and coping

Now let me ask you about your mental health. Do you know what I mean when I say mental health? *[INTERVIEWER: If participant is unsure, suggest you mean their spiritual and emotional health—things like how they feel about themselves and their situation and how motivated they are to live their life from one day to the next. Check again that the participant is with you before continuing.]*

1. How would you describe your mental health at the moment? [Probe: general happiness, confidence about present/future, general unhappiness, how long]

2. What makes you to have 'good' mental health? *[Probe: how to stay positive, how to have hope for the future, avoiding situations that are stressful, being with friends, being in love]*

3. What makes you to have 'bad' mental health? *[Probe: bad experiences, bad memories, loneliness, isolation. INTERVIEWER: Take time here to get some stories about specific experiences.]*

4. When you have 'bad' mental health, how does it affect you? *[Probe: alcohol or drug use, sex, violence/abuse, sleeping or eating patterns. INTERVIEWER: Take time here to get some stories about specific experiences.]*

5. How do you cope with it and try to pull yourself through? *[Probe: negative behaviours—drinking a lot, drugs, frequent sex; AND/OR positive behaviours—being with friends, family, prayer. INTERVIEWER: Ask participant to tell a recent story about how he 'pulled' through from a bad experience.]*

6. Have you ever been diagnosed with a mental health problem, such as depression, anxiety, thinking about suicide, or being possessed ty spirits or demons? Has anyone ever attempted to 'cure' you of homosexuality?

    a. If yes, who made the 'diagnosis' and how did this affect you? *[INTERVIEWER: If no diagnosis, go to Question 7]*

    b. Did you try to get help or treatment?

    c. Where did you go? Who helped you? What was the treatment? Did you do it willingly or did someone force you? Did it work?

    d. Did you pay anything for the diagnosis? How much did you pay and what specifically was if for?

7. If you've never been diagnosed, do you think you have had one of these problems and should have asked for help? Why did you not ask for help?

D. Ideas for improving services

Now let me ask you about ideas that you have that could improve things about mental health.

1. What do you think could change to prevent you or others from having bad mental health problems?

2. What do you think could change to help people with bad mental health problems?

E. Wrap up

I have finished all of my questions. Thank you very much for sharing this important information with me. Before we close, do you have any questions for me?

HEALTH ECONOMICS AND HIV AND AIDS RESEARCH DIVISION

Working to advance health equity in Africa