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Mental health and its drivers in lesbian, bisexual and queer-identifying women at a South African higher education institution: a qualitative study

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Abstract

Background Many university students have poor mental health, and sexual minority students may be particularly vulnerable. This study explored lived experiences and drivers of poor mental health amongst lesbian and bisexual students in a South African university.

Methods Three focus-group discussions were conducted in isiZulu on three campuses, with 56 participants between 18 and 30 years old, identified through the campus LGBTQI + forum. A topic guide with open-ended questions on mental health experiences guided the FGDs. Discussions were audio recorded, translated and transcribed into English. Inductive thematic analysis was conducted, with emerging themes confirmed in a meeting with a subsample of participants (member checking).

Results Three main themes emerged: (i) Experiences of mental health problems and resilience, (ii) drivers of poor mental health across the life course and (iii) drivers of poor mental health in current student life. Participants articulated a deep self-awareness of their distress and the impact on their academic and personal lives. They described how their poor mental health impacted their academic performance, self-care and relationships, contributing to a sense of overwhelm. Substance use, particularly alcohol and marijuana, was widely reported. Participants also identified resilience factors, chief amongst which was social interaction through supportive friendships and connections within the LGBTQI + community. The early drivers of poor mental health identified by participants included rejection by family based on their sexuality, the burden of meeting societal expectations of women in their cultural context and the pressures created by religious beliefs about minority sexual identities. Participants highlighted the strain of navigating their sexual identity in unaccepting environments, which led to feelings of self-stigma and emotional exhaustion. Homophobia on campus further exacerbated their distress, with participants highlighting experiences of verbal abuse and discrimination.

Conclusions This study describes experiences of poor mental health of sexual minority women students in South Africa. Mental health promotion interventions for campus environments, including approaches that build

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self-acceptance and foster social support, are urgently needed to address drivers of poor mental health. This should include multicomponent psychoeducational interventions that affirm gender and sexuality, promote mental health literacy and self-acceptance and enhance healthy coping strategies and resilience.

Keywords Lesbian, Bisexual, Queer-identifying, Mental health, University student, South Africa

Background

The mental health of young people has been globally recognized as a research and service priority for more than a decade [1], alongside growing recognition of the social determinants of mental health (e.g. demographic, economic, social and cultural factors) [2]. Sexual minorities and women, in particular, are more likely to experience mental health conditions than the heterosexual population, linked to experiences of victimization and discrimination [3–7]. In conjunction with this, there continues to be a focus on the vulnerabilities and mental health needs of students and the role of higher education institutions as spaces for promotion of mental health [8].

University students are typically young people at a key developmental and functional stage who are presented with a variety of challenges and stressors that can negatively impact mental health. The transition from secondary school to higher education can be a time of upheaval, bringing new pressures as well as shifting social dynamics and life tasks [8, 9]. These new challenges overlay childhood and early adolescent experiences which may include stressful life events and trauma associated with mental health conditions [10]. In low- and middle-income countries (LMIC) particularly, poverty exerts a powerful influence on the development of mental disorders [11, 12]. Many students also experience stress in the higher education environment related to relationships, health, financial difficulties and academic performance, which can be linked to the development of mental disorders [9]. Cross-national research has shown more than 30% of students screen positive for one or more common mental disorders [13], notably anxiety, depression and substance use, with high levels of comorbidity across these conditions [14], indicating a higher prevalence of mental health conditions amongst students than the general population. This links with evidence of increasing prevalence of suicide attempts and non-suicidal self-injury in some higher education settings [15].

Young people identifying as a sexual minority have additional stressors and experiences in their environment that affect their mental health [16]. From adolescence, sexual minority youth may be more likely to experience emotional distress, anxiety, depression and suicidal thoughts linked to negative experiences and victimization they encounter based on their sexuality [17, 18]. Homophobic bullying that may begin in school years is indicative of the climate of stigma in wider society [19, 20]. Research into mental disorders amongst sexual minority youth is most well developed in high-income country (HIC) settings and points to minority stress as a key factor contributing to the greater burden of mental and physical ill health amongst sexual minorities [21–23], including self-harm and suicidal thoughts and behaviours [24, 25]. Additionally, data from HIC and some LMIC suggest students in countries with higher levels of social acceptance of sexual minorities (potentially lower minority stress) have a lower risk of mental disorders [26]. Minority stress theory outlines external stressors, notably discrimination and violence, as well as internal stressors related to expecting ill treatment, maintaining secrecy of identity and internalizing stereotypes and negative perceptions of the sociocultural environment [21, 27–30]. Adding to this, verbal, physical and sexual violence experienced by sexual minorities due to sexual orientation affects health and well-being [31]. The variety of forms of violence perpetrated against sexual minority young people, as well as self-directed harm, presents a foundation for the development of mental ill health [22]. Compared with heterosexual women, lesbian and bisexual women are at risk for poorer mental health outcomes (e.g. post-traumatic stress disorder, depression, substance use) [5, 6, 32].

While most prevalence data for mental health conditions in students comes from HIC, systematized evidence suggests the prevalence of depression amongst university students in LMIC is above 20% [33]. South African university campus studies have shown a high prevalence of mental health conditions amongst students, with female and sexual minority students being at higher risk [34–36]. A national South African student survey showed over 20% of students screened positive for anxiety disorders, with sexual minority status highlighted as a risk factor [37]. South Africa has a liberal constitution [38], and higher education institutions have developed supportive policies to guard against discrimination on the basis of gender and sexual orientation. However, the implementation of policies is challenging in the broader social environment. The country has a strongly patriarchal and heteronormative society which is reflected in the sociocultural environments of higher education campuses. Within this context, sexual minorities constitute a vulnerable group at risk for poor mental health. Research to

better understand their experiences can play a vital role in developing strategies to promote mental health. There has, however, to date been limited research into the mental health of sexual minority women students in South Africa. This study used a phenomenological approach to explore self-identifying lesbian, bisexual and queer-identifying (LBQ) female students' accounts of their lived experiences and perceptions of drivers of poor mental health on three campuses of a South African higher education institution.

Methods

Setting

This study was conducted at a large, multicampus public university in South Africa, which attracts students from all nine provinces of the country, with some diversity in socioeconomic backgrounds, although many students come from disadvantaged backgrounds and attend university through bursary support from the National Student Financial Aid Scheme (NSFAS) [39]. Methods and findings in the study are reported in line with the COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist [40] (Supplementary Material 1 COREQ checklist).

Sampling

Participants were recruited using purposive sampling to recruit women self-identifying as lesbian or bisexual, aged between 18 and 30 years, enrolled in degree courses for at least 1 year. Participant-driven sampling with initial contact made with participants through the respective campus LGBTQI + fora was used. Participant-driven sampling [41] for recruiting hard-to-reach populations leverages participants' social networks. LGBTQI + forum members recruited others through distributing study information through WhatsApp and word of mouth through their networks. The Community Advisory Board for this study suggested there would be important differences in identities and experiences of transgender and intersex individuals that would potentially not be captured in focus-group discussions (FGDs), so these will be explored in a separate study. Participants were recruited by a peer research assistant who was a lesbian student employed by the study. Author P. M. also spoke to some of the participants before FGDs through the LGBTQI forums when introducing the study, its aim and timelines. Engagements with LGBTQI + fora involved sharing information about the study and the facilitators so participants were aware of the occupations of P. M. and N. M.

Data collection

Three FGDs were conducted in March 2023, one each on three separate campuses of the higher education institution, with participants between ages 18 and 30 years. The FGDs were facilitated by two trained facilitators (P. M. and N. M.). These facilitators were both female and had no prior relationship with the participants. P. M. is trained in qualitative research and has extensive experience in conducting FGDs with women students. N. M. has experience in NGO advocacy work with the LGBTQI + community and in conducting research with women. Two FGDs comprised 20 participants, and the third group had 16 participants ($n = 56$ total). Four participants who were approached and agreed to participate were not available due to other commitments that came up on the day of FGDs. Only the participants and facilitators were present during FGDs. FGDs lasted > 1.5 h to enable all participants to share their perspectives in the larger groups. Researchers also paid close attention to group dynamics, ensuring that no participants dominated the discussion and encouraging contributions from those who were less vocal. The campuses of the University of KwaZulu-Natal were Edgewood Campus (education faculty), Howard College Campus, and Westville Campus (which house a variety of disciplines including humanities, education and health sciences). Having FGDs across sites enabled representation of LBQ women students from different areas of study. The majority of students across these campuses have similar backgrounds, being culturally and linguistically isiZulu, and many have a Christian family background and come from less affluent families. Each FGD was conducted in a private space on the campus within easy walking distance for participants and during a time that was convenient and did not interfere with academic requirements. Voluntary informed and written consent was requested after an explanation of the study and ample time for participants to ask questions. A topic guide was then used to guide the FGD process, which included open-ended questions, for example: 'please share with us, in your view what are the mental health issues that affect LBQ women?' (Supplementary Material 2 FGD Guide). Campus psychosocial support services (student counselling services) were engaged and available for referral at the time of FGDs and afterwards, but no referrals were required.

Positionality

FGDs were conducted by P. M. and N. M., both experienced qualitative researchers and isiZulu speakers (the first language of participants). N. M. openly identifies as a sexual minority, which helped promote engagement and rapport. The positionality of P. M. and some other members of the wider research team (i.e. not identifying as sexual minority) was acknowledged and discussed with participants at the beginning

of the FGDs in an effort to improve rapport, trustworthiness and richness of data collected. The researcher team also explained to participants the positionality of the research team in terms of being female with broad acceptance of diverse sexualities and commitment to avoiding the impact of our own biases in producing the research. This was supported by discussing psychological safety for everyone at the outset of the FGDs to allow and encourage participants to share experiences openly and allow researchers to ask clarifying questions on the experiences of LBQ women that were unfamiliar to the research team. This was a further effort to increase the clarity of representation of participants' voices. All researchers were familiarized with the concept of bracketing to help them set aside biases, assumptions and preconceptions aiming for an authentic interpretation of participants' experiences. At the same time, we acknowledge that researcher subjectivity is not a bias that can be eliminated but a factor to be critically examined in an ongoing process. Throughout the study, we held peer debriefing meetings with the wider research team (including sexual minority women) to examine assumptions, emotional responses to the data and interpretation of findings.

Analysis

Audio recordings were transcribed verbatim and translated from isiZulu to English by a first-language isiZulu speaker employed by the Gender and Health Research Unit of the South African Medical Research Council, who had signed a confidentiality agreement. Inductive thematic analysis was conducted [42]. Manual coding was done using MS Word to produce initial codes and develop a codebook (Supplementary Material 3 Codebook) using the transcripts from the three FGDs. After familiarization with the data, initial themes were developed by C. B. S., N. M., M. M. and P. M. Coding meetings were conducted to refine and review these themes through multiple iterations. Any coding disagreements were resolved through discussion amongst the research team, and findings were presented to the wider co-investigator group [42–46]. Member checking meetings (facilitated by C. B. S., M. M., P. M.) were conducted in May 2023 with three groups of 10 students from each of the three campuses who had participated in the FGDs [47–49]. The focus of member checking was to check that the meaning attributed to themes remained an accurate reflection of the voice of participants [47, 48]. Transcripts of FGDs were shared with participants during member checking. A final coding structure was then developed, and coding of transcripts proceeded until saturation with no new themes emerging.

Results

All participants were cisgender women, identified as LBQ, were Black African and were culturally and linguistically Zulu except one participant, who was of Asian (Indian) descent. All participants were aged between 18 and 30 years, with variation in the year of study (first year to postgraduate). Three major themes emerged.

Theme 1: Experiences of mental health problems and resilience

Participants discussed mental health with a high level of insight into their experiences of mental distress, the multiple ways this affected their lives as students and young LBQ women and the limited support available to them. For most participants, mental health was conceptualized as mental ill health, and most described being weighed down by the effects of their mental state. Experiences of depression and anxiety were common and recognized by the majority of participants, including a minority who described having a diagnosis of major depression and having been prescribed pharmacologic and/or talking therapies. Other participants spoke openly about non-suicidal self-harm and suicidal ideation and the level of distress surrounding these experiences, which seemed normalized for them. One participant referred to previous suicide attempts, which they recognized as being a consequence of their depression.

> *Sometimes it gets so bad. It is too much to handle on your own. You are suffering. You have depression. You have anxiety… it's a lot for one person to handle and you don't have anyone to talk to, especially sometimes you find that you can't even talk to your family because it's even worse on that side. And then when you expect to get help at school, it's still just the same. So for some people it gets overwhelming. I for myself, I do have clinically diagnosed depression and anxiety. So it gets overwhelming at times because you don't have anywhere where you are actually free to be yourself, because either side you are going to be judged. The expectations from society… and it just gets too overwhelming and it's just too much for one person to handle. FGD 2 participant*

Substance use was commonly reported by participants, mainly alcohol and marijuana, but also including misuse of over-the-counter and prescribed medication. Participants articulated how they self-medicated or used substances to escape their emotional pain and distress, describing how their substance use helped them alleviate stress or numb their emotions temporarily. Substance use, in particular alcohol, was viewed as a helpful coping mechanism, with participants commonly feeling that the benefits outweighed the harms for them. A subgroup did

acknowledge the negative impacts of substance use on their health, finances and personal wellbeing.

> *I feel like I am more happy whenever I am drinking. That's the way that I deal with my issues. There is no solution at all because I have a problem and there is no solution to that problem. So what am I going to do to move on, in order for me to not kill myself or anything, to move into the next day? So it's drinking for me. I feel like drinking makes me feel better because there is no solution to my problem. FGD 3 participant*

Some, in particular, acknowledged that using substances was a way to escape the reality of the problems they faced of being ostracized because of their sexuality.

> *…If at home they do not accept you, that is where you are more triggered to have mental health issues. So you end up using substances to forget that for the time being. I can say that it's one of the coping mechanisms that I use when I am facing problems because usually, I smoke weed…. All goes numb and I don't care about anything. It helps me. FGD 3 participant*

The level of insight participants expressed in terms of mental health was further highlighted by their recognition that their mental distress affected various aspects of their functioning, including academic performance, relationships and their ability to engage in self-care activities. They described difficulties with focusing on assignments, meeting deadlines and attending required academic activities. Participants outlined how their poor performance then compounded the mental distress they were already experiencing, for example through increasing stress due to poor academic performance.

> *But I see that I am not functioning. I can tell I am not myself. I can tell I am just doing it because I can't mess with NSFAS (student funding). I can't mess with my family. I can't go all the way to third year and then fail. But emotionally I am numb. I don't care. Sometimes I procrastinate with academic work just because I want to fill up my expectation to make myself feel better, but at the same time in my mind it hits me that 'Haibo! (No!), I am supposed to do what I came here for, what I am supposed to do."… By the time you sleep the due dates are cropping up so you end up in trouble most times and end up being stubborn. FGD 1 participant*

Aligned with participants' level of insight into their symptoms of poor mental health, they also described awareness of the ways they tried to keep themselves well and to cope. Social interaction emerged as a key factor in promoting resilience. They discussed the importance of supportive friendships and connections with the LGBTQI + community. Additionally, participants emphasized the significance of self-care practices while at the same time noting that their depressive symptoms and academic pressures made it challenging to keep up their self-care. Engaging in activities such as listening to music, spending time with friends, looking after their physical health and positive thinking helped them manage stress and maintain a positive mindset.

> *I turn on my favourite song or feelgood song, that's going to make me feel good about myself. You see I am going to wake up. I am going to... not really pretend but just to push myself to wake up and get stuff done. Try to be productive even though I am feeling down. Just to push myself. Even if I have done a small thing like cleaning or doing laundry or cooking, but it is going to keep me... keep my mind off things. FGD 3 participant*

While participants noted awareness of the principles of self-care in the need for rest, healthy food, personal hygiene and social interaction, some described how depression made it difficult for them to practice daily self-care and led them to isolate themselves amid feelings of anger and despair that also challenged friendships and intimate relationships.

> *You see hygiene….Okay I get that you have to wake up and bath and brush your teeth but when it comes to how you dress or how you present yourself, if you have depression or have issues internally or mentally, I am telling you, you will not function correctly…. depression leads to self-neglect. You find that in my room… shame… it's so dirty but you are lazy, like you end up not even caring for yourself because you don't care about anything anymore. FGD1 participant*

Theme 2: Drivers of poor mental health across the life course

Aligned with their insight into their mental distress, participants painted a clear picture of how the trajectory of their lives from childhood had formed a pathway to the development of their self-expressed depression (whether diagnosed medically or not). They outlined four drivers that particularly influenced this pathway: (i) Individual psychological stressors, (ii) family environment including childhood trauma, (iii) social norms around gender roles and expectations and (iv) the influence of religion.

Participants described several key internal stressors that influenced their mental health experiences. They commonly believed that one of the underlying causes of

their mental distress was the combination of external and internalized stigma related to their sexuality and the ways this led them to feel about themselves and be treated by other people. One participant described how LBQ women used substances because of feelings of self-hate with the intention of punishing themselves and causing self-harm. The degree of self-acceptance in relation to their sexuality emerged as a crucial component of mental wellbeing, with some participants describing the journey of embracing their sexual orientation and developing a positive sense of self. Those who had worked towards self-acceptance described how this helped them be resilient. Participants recognized self-stigma and shared struggles with internalized negative beliefs and feelings of shame or guilt associated with their sexual orientation, which affected their self-esteem and overall well-being. The pressures of remaining fully or partially closeted, characterized by hiding their true selves and maintaining secrecy about their sexual orientation (e.g. not being open about their sexual orientation when visiting their family home), were also described as a stressor. Participants identified the strain caused by constantly navigating the felt need to present different identities in different environments, leading to feelings of inauthenticity and emotional exhaustion. Compounding these stressors, academic stress emerged as a prominent factor affecting participants' mental state, with participants highlighting the pressures associated with academic expectations and the fear of failure. The combination of these psychological stressors was described as contributing to a sense of overwhelm.

> *Accepting yourself and your sexuality, learning to come out the closet is not easy. So if you have not been accepted you are about to end up with depression. FGD 1 participant*
>
> *Sometimes you have suicidal thoughts because of your sexuality. That comes... Or harming yourself just to escape the pain. Those are the two things I think I have experienced. The suicidal thoughts, depression and harming yourself just to escape. FGD 1 participant*
>
> *It's just the matter of buying alcohol, drinking, buying weed... It's nothing that I can say is different…It's just that what differs is you now want to kill yourself with the pills, you want to drink yourself to death, because of the case (being ostracized) you are facing. FGD 2 participant*

Participants described how their family backgrounds were formative in shaping their beliefs and values regarding sexuality and how the conflict in integrating the belief system of their family with how they felt as an individual was a driver of their poor mental health. A range of experiences were noted within families, with some participants reporting supportive environments where some level of acceptance and understanding prevailed, while others faced discrimination and rejection due to their sexuality. These family dynamics played a crucial role in influencing self-acceptance and overall well-being. Some participants also described how the pressures of their parents' expectations meant they lived a double life, being open about their sexuality when on campus but avoiding this with their parents and family, who continued to express hopes that they would 'change' and have a heterosexual marriage and children. Most participants also described the impact of childhood or previous traumatic experiences on their mental health. Participants did not relate these to their sexuality in the early childhood stage but rather to the consequences of complicated parental relationships and a history of violence in families. Instances of abuse and mistreatment were identified as contributing factors that influenced their sense of self and relationships, and these were noted to be a product of the family and socioeconomic environment they grew up in, including exposure to violence in the home not linked to their sexuality. Later experiences in adolescence, including stigma and verbal abuse related to their sexuality and gender expression, were identified as deepening the impact of earlier childhood experiences.

> *When nobody cares about you at home and you're not getting the support from home. Every month she [sister] gets pocket money…but when it's you… they don't care at home… they will discriminate against you, maybe not discriminate as such, but they will kind of distance themselves at home because they see that you are like this [not heterosexual]. I am sidelined because of my sexuality. So the only time I get support, it's from my father because he does understand my sexuality and he does accept that he has a child who is a lesbian, but as for my mum I feel like for her it's difficult to accept…Even if I say, "Mum I don't have money for food" she will side-line my issue. Technically she takes it that "You are a man. You can do stuff for yourself". FGD 1 participant*

The majority of participants emphasized the way the pressures of heteronormative social norms and role expectations exerted a powerful influence on their lives. They expressed clear insight into how heteronormative assumptions embedded in society placed additional challenges on them as individuals developing from childhood to adulthood and grappling with societal expectations that often did not align with their authentic selves, for example to dress and behave 'like a girl or woman'. They further linked these roles and expectations to their experiences in intimate relationships (e.g. the 'butch' partner

needing to be the provider and dominant partner). These role expectations and the linked challenges with effectively negotiating power were put forward as causes of relationship dissatisfaction and conflict with the associated negative impacts on mental health.

> *In society you are expected to behave as a girl. Maybe you do not conform to the normal definitions of what is a woman or what is a female. Then this contributes to your mental health issues because the way that people want you to live, think and dress it's not the way you feel you are like. FGD 3 participant*
> *Then there is society and societal norms that put you in a sexuality bracket that the way they see us it's the way they want us to be [or behave]…the way they expect us to be. They are always expecting us to be that way. And then that is where it troubles your mental health because you cannot express yourself because of what society expects from you. (Member checking meeting 1 participant)*

Participants commonly described growing up in religious households, with the teachings of religion influencing the family environment and relationships, as well as the socially defined roles of men and women. The predominantly Christian religious environment (only one participant described being Muslim), with a lack of acceptance for same-sex relationships, was described as negatively influencing their ability to accept themselves and preventing them from feeling accepted in their families and wider communities. This, in turn, affected the likelihood of them being open about their sexuality. Participants highlighted the prejudice and negative stereotypes they encountered based on their sexual orientation, for example through being pressured to conform to more feminine behaviours or expressions. These experiences they acknowledged were internalized and had a detrimental impact on their mental health. Many participants highlighted the strong influence of religion as a key factor preventing them from enacting self-acceptance and growing a sense of self-worth, and this was highlighted in some of the most severe expressions of mental distress (suicide attempt). Some participants further explained the importance of religion to them personally as a source of meaning, despite the lack of acceptance of their sexuality, and they highlighted the stress that came with having to choose either their religion or themselves:

> *But for me it was religion mostly that contributed to me wanting to commit suicide… the incident happened at home, so my mum said she wants to cleanse the homosexuality out. So that means this person obviously doesn't accept me. So you start questioning yourself - that this means God doesn't love me. When they say God is love, so why is it a sin for me to love another girl? Is that a demonic act, because it's still love, anyway? So that was that, in the beginning… I had to choose myself and my sexuality, accept myself and love myself regardless of what God and the Bible say. FGD 1 participant*

Theme 3: Drivers of poor mental health in current student life

Participants went on to express several drivers that impacted their mental health and quality of life in their current student academic and social lives. They commonly described a variety of experiences of homophobia on campus that negatively impacted their mental health. These included verbal abuse through name calling (e.g. *stabani*, a derogatory isiZulu word for an LGBTQI + person), discrimination from staff in relation to getting positions in the university (e.g. employment in post-graduate teaching positions, residential facilities) and lack of support from campus safety services in cases of violence and harassment (e.g. individuals being moved to different residences, rather than dealing with the perpetrator). The commonly held perception was that LBQ women who had university-linked jobs (e.g. tutors) were afraid to stand up to instances of homophobia, discrimination or harassment. More masculine presenting and openly gay participants described feeling more vulnerable to verbal insults and physical harassment based on their appearance. Participants also emphasized that even though their peers were young and educated, homophobic beliefs and attitudes were still strong and prevalent.

> *I think it was during the society meeting that happened recently… there was this one guy who was just like, "it's good that they [LGBTQI+ community] all meet in one place and we know where to go for them. Member checking meeting 1*
> *For example, I experienced something like this during my teaching practices, the person who was critiquing me looked at my physical appearance not my work. So, this person looked at me with the view that a homosexual is not accepted, she/he is not being professional. Member checking meeting 2*

Most participants reported coming from impoverished backgrounds, and in most cases, they were the first person in the family to reach higher education. They described how the hopes of their family for a better life rested on their shoulders, leading to pressure, including the expectation that those who received government bursaries would send money home. Several participants described using a portion of their student grant to send home to their family every month, knowing that their family was in difficult financial circumstances. This left

them with inadequate funds to provide for themselves on campus. The strain of these socioeconomic circumstances was also described as leading to the formation of transactional relationships, mainly with men, in which they felt compelled to exchange sex or other activities solely for financial support.

> *Not everyone comes from a well-off family, that when month end comes…I know that mum will ask from me. I know that my father, they are actually waiting for me, that it is me who will give them money. So this alone is depression ... there are a lot of students who have depression here on campus who are like this. They are depressed because of people they keep around them, who drive their lives because of the benefits they get from them. FGD 2 participant*

Living in fear for their personal safety was a further driver of poor mental health that participants shared. They expressed concerns about the lack of physical safety in their environments for women in general but particularly for LBQ women. The threats of physical and sexual violence were real and present for participants in the study, some of whom described experiences of violence perpetrated against themselves and friends. These fears and experiences created a hostile and challenging atmosphere for LBQ women that further exacerbated their stress levels and mental distress.

> *Now you are walking towards a group of people that you don't know and after having been judged before or having suffered those certain instances, you are anxious, even sometimes just walking past a group of people ... I too myself I know, even walking on campus like I don't know how should I walk. Should I change the way I am walking? FGD 2 participant*
> *So it's not easy daily. You pray that "I hope today I won't get assaulted. I hope today I won't get insulted. I hope today will be a normal day." But it doesn't happen. FGD 1 participant*

Relationship stressors were another key driver of poor mental health described by participants. Most noted challenges in their interpersonal relationships, including conflicts with friends, romantic partners or family members. These stressors added to their emotional burden and affected their ability to cope effectively with the demands of student life. For example, one participant spoke about relationship challenges contributing to their emotional difficulties.

> *But I feel like when you meet people they play a role in your life and become special to you and you grow to love them so when things are not good that can send you through a very dark hole and I feel like most people they get dismissed when they cry because of umjolo [intimate relationships]". FGD 3 participant*

The stressors associated with intimate relationships were on the one hand seen to be a normal part of life, something that anyone in a relationship would go through, but specific issues around the role expectations in lesbian relationships were described, including that the masculine presenting partner should always provide. Participants commonly felt that lesbian relationships were particularly toxic, characterized by violence and conflict driven by the heteronormative role pressure that these women derived from their position in their communities and society.

> *Maybe let's say the relationship involves a stud and a fem, you find that the fem is expecting that the stud step it up, all the time. Like so you end up, the stud ends up being stressed, like "Why is it always me who is supposed to provide", whereas it's the same sex relationship. So this causes stress and unnecessary depression. FGD1 participant*

However, some participants also described how those with more healthy relationships were those who managed to create their own relationship dynamic that was not governed by prevailing cisheterosexist social norms. These relationships were described as relying on striving for excellent communication. They also emphasized that some LBQ women had established healthier ways of interacting in their relationships, carving out a different way of negotiating power. This manifested in more balanced relationships in which both partners each took on carer and provider roles in turn.

Discussion

This study aimed to generate qualitative evidence about lived experiences and drivers of poor mental health amongst LBQ women in a South African university setting. It makes an important contribution to the limited literature on the lived experiences of mental health of sexual minority women from LMIC. Overall, its findings have illuminated the complex interplay of family background, childhood trauma, social norms, religious environment, stigmatizing experiences and current student life in shaping individuals' experiences related to their sexual orientation and mental health. This underscores the pressing need for intersectional approaches for researching and intervening in the health of LBQ women and applying this approach with attention to contextual realities in a country-specific way. Most immediately, the study findings point to the need for mental health promotion for LBQ women students and present potential

intervention points for campus mental health promotion interventions, which are discussed here. Although there is recognition of the need to prioritize mental health promotion for sexual minority students in some settings, tailored prevention interventions are lacking even in HIC settings [50], and this study presents a step forward in beginning this process for South Africa, mapping out key potential intervention points. Interventions to promote mental health literacy and prevent symptoms may be particularly important as there are low levels of treatment utilization for South African students once mental disorders have developed [51]. The study also signals the need for structural interventions in higher education and across society to build understanding and acceptance of diversity in sexual orientation and gender identity and expression and change the homophobic environments of campuses.

Experiences of symptoms of poor mental health were commonly described by LBQ students in this study, particularly depression, anxiety, self-harm, suicidal thoughts and abuse of alcohol, marijuana or over-the-counter pain medicines. This aligns with findings of high prevalence of mental health conditions in HIC sexual minority students [52, 53] and similar emerging evidence in South Africa [37]. These findings also add to the evidence of experiences of poor mental health amongst sexual minorities emerging in other African countries [e.g. Ghana [54], Kenya [55], Zambia [56]], Arab countries [57] and Asian countries [e.g. Thailand [58]]; however, much of this research focuses on sexual minority men, with the experiences and needs of sexual minority women still requiring attention. The expressions of self-harm and suicidal ideation in the current study indicate the crucial need for support both in access to appropriate treatment for mental health conditions and in mental health promotion to bolster the mental health of these young women who may benefit from the prevention of mild to moderate mental health conditions developing into more severe forms. Given that substance use, particularly alcohol use, was reported as a coping mechanism, preventive interventions should focus on harm reduction strategies and meeting students 'where they are at' in terms of their coping behaviours.

Multiple social determinants and drivers of mental ill health were described, pointing to potential areas for intervention for mental health promotion. Prominent amongst these were LBQ women's painful experiences of discrimination and rejection by family based on their sexuality, compounded by navigating homophobic and non-inclusive learning, cultural and religious environments, similar to other LMIC settings [59]. Stigmatization, victimization, discrimination and social exclusion are mental health challenges for LGBTQI + individuals globally with the impact of these experiences suggested to be mediated through minority stress [17]. Core to minority stress theory is that prejudice and stigma towards sexual minorities bring about unique stressors that produce poor health outcomes [60] (including poor mental health outcomes), as well as shaping individuals' potential for coping and resilience [28]. Minority stress is linked to emotional suppression and mental distress [7, 61] and thus a key determinant of mental health conditions amongst sexual minority women that could be reduced. This area therefore presents a potential key intervention point for targeted psychosocial interventions. Evidence from HIC settings indicates that minority stress leads to increased vulnerability and worse outcomes for mood and anxiety disorders, suicidality, substance use, body image challenges and disordered eating [18, 62–64], with bisexual women at particular risk for substance use disorders [65]. Findings from the current study suggest a strong influence of minority stress and internalized homophobia in this group. Mental health promotion interventions that improve coping and resilience in relation to minority stress may thus have important potential for the South African setting and more broadly. At the same time, a too narrow focus on minority stress as a HIC-derived concept may limit attention to intersectional realities faced by sexual minority women in South Africa by targeting individual-level stressors and overlooking the broader structural forces, notably poverty and inequality.

Experiences of ostracism and lack of support from family were described as having a strong negative influence on participants' mental health through influencing self-acceptance and self-esteem. These compound the experiences of minority stress and lead to poorer mental health outcomes for sexual minority women [66]. Lack of self-acceptance and self-esteem were also linked to stress emanating from expectations for conforming to the cis-heteronormative gender roles prescribed by the socio-political landscape and by family, cultural and religious influences, as has been described previously for South African sexual minority women [67, 68]. This mirrors findings from HIC that outline how the pressures of normative expectations of society exert a powerful influence on sexual minority students' sense of self [66]. These findings also build on previous South African research showing that lesbian women face difficulties expressing their sexuality and gender identity because of the prevailing homonegative social, religious and cultural environment, despite the protection of LGBTQI + rights in the country's constitution [67]. Lesbian and bisexual, Black South African women navigate a complex matrix of oppression shaped by the interlocking forces of race, gender, sexuality and post-apartheid socio-political dynamics, aligned

to principles of intersectionality, as articulated by Crenshaw [69]. This complexity is evident in the experiences of participants in the current study and highlights how aspects of identity (e.g. cultural, religious identity) may be overlaid on more established aspects of intersectionality such as gender to understand the unique experiences of marginalization and resilience emerging in South Africa [69, 70]. This also points to the potential of interventions that support LBQ to navigate their journeys towards self-acceptance in this cultural milieu in a way that is promotive for their mental health.

The importance of religion as a formative factor in the development of participants' sense of self and challenges to self-acceptance highlights the impact of the conflict between homonegative faith beliefs and sexual minority identity for South African LBQ women students, mirroring well-developed evidence from HIC [71]. They also point to a high level of cognitive dissonance experienced in relation to their sexual identity for LBQ women who have grown up in religious households and continue to hold religious beliefs. These conflicting beliefs cause psychological discomfort [72] and contribute to poor mental health. Lesbian, gay, bisexual and transgender students in South Africa have been labelled 'sinners', 'devils' and 'demon possessed' [73], and findings from the current study suggest overt and subtle forms of spiritual violence are common life experiences for LBQ women students. Similarly, the impact of childhood trauma and experience of family violence as described by participants is well documented as contributing to mental health conditions [2]. Risk factors for traumatic exposures may disproportionately affect sexual minority youth, including victimization based on gender identity and expression [17, 74], and emerged as an important contributors to the mental ill health of participants across the life course. Intervention approaches suggested by these findings (beyond improving access to evidence-based therapies for healing from trauma) include psychoeducational interventions to build self-awareness and acceptance as well as linking to religious groups that are accepting of diversity.

A key point of intervention this study points to is in addressing the impact of experiences of violence on LBQ students' mental health. Sexual minority women, particularly bisexual women, are at heightened risk of physical and sexual violence [52, 75–77] due to others' perceptions of their sexual orientation and/or gender identity [31, 77]. Experiencing violence also confers a risk for developing mental health conditions (e.g. depression, post-traumatic stress disorder, substance use disorder) [13, 14] and is an important underlying factor for mental ill health of sexual minority women [53]. Participants in this study felt their campuses were threatening social environments where they lived in fear of violence linked to their sexual minority status. Experiences of homophobic verbal abuse, threats of violence and harassment were common in line with previous South African research demonstrating stigmatizing behaviour from peers and lecturers [68]. Notably, South African higher education institutions, which represent microcosms of society, remain cis-heteronormative [78, 79], and findings from this study suggest a campus environment hostile and unsupportive for LBQ women. While there are efforts to implement affirming and inclusive policies aimed at making campuses safe and enabling for LGBTQI + students, much further progress in interventions to make these safety policies reality is needed, as well as interventions for LBQ women that help them to develop strategies for violence risk reduction. Participants described the other prominent avenue for the experience of violence as being conflict and violence in intimate relationships, which LBQ women identified as negatively influencing their mental health. Experience of violence, including intimate partner violence, is a key determinant of mental ill health amongst young people and students in South Africa but less is known specifically about the dynamics of relationship violence amongst sexual minority and gender diverse students [45]. Intervention approaches to address these findings would include programmes that enhance skills around conflict resolution, positive negotiation of power in same-sex relationships and awareness of the impact of heteronormative expectations.

Participants in this study described other important sources of stress, unrelated to their sexual minority identity, which included fulfilling the expectations of their role as students and financial providers for impoverished extended families who expected them to share money from government-provided student grants. These presented an additional layer of pressure for LBQ students, further challenging their mental health. Stress and mental health challenges lead to important deficits in students being able to function academically [65] affirming a strong need for intervention in these areas with an intersectional approach to mental health, harnessing the potential far-reaching impacts of broader interventions for poverty alleviation in South Africa. On an individual level, interventions that support LBQ students in financial management may be relevant. While participants had knowledge around self-care, putting this into practice remained challenging with the overwhelming pressures experienced, both internal and external. While many participants in the study did utilize positive coping strategies, including relying on supportive friendships and connection to the wider LGBTQI + community, effective coping strategies for mental health promotion, in contrast to avoidant coping strategies, including substance use, are required, including problem-solving,

developing positive self-worth and mobilizing social support resources [17].

Our study had some limitations. Despite candid reflexivity, the influence of the cis-heterosexual members of the research team's positionality may have shaped interactions with participants and interpretation of findings, potentially introducing bias. Several approaches were taken to minimize this potential. We were intentional about being approachable and nonjudgemental, creating a trusting environment and encouraging sharing of rich data [80, 81]. Meetings and ongoing discussions with members of the research team identifying as sexual minority were prioritized, checking understandings, language used and concepts brought forward from the data while developing themes. The research team engaged in continuous interrogation of positionality and prioritization of reflexivity towards awareness of our own past experiences and sexual orientation in relation to the data [82]. We intentionally introduced bracketing, setting aside personal values in relation to concepts introduced by the data [82]. A further limitation is that the use of focus groups over in-depth interviews for exploring deeply personal experiences may have constrained the depth of insights. FGDs at a single time point did not allow for additional probing and contextual understanding that would have been possible from participant observation; however, member checking allowed for a second contact point and gaining further data. Additionally, we involved groups of lesbian and bisexual women together, and despite certain commonalities, there are also differences between these groups, for example through men's involvement in bisexual women's romantic relationships and biphobic attitudes reported by some lesbians.

Conclusions

This study has described experiences and underlying drivers of poor mental health of LBQ students from three campuses of a South African higher education institution. Common experiences of mental ill health underscore the need for comprehensive mental health support for sexual minority students in both treatment and prevention. For mental health promotion, these findings may be used to inform contextually tailored interventions supporting mental health for LBQ students. This should include gender-affirming, psychoeducational interventions which promote mental health literacy and self-acceptance and enhance healthy coping strategies and resilience, for example peer-delivered group-based approaches with this content. Further, the findings highlight the importance of policies aimed at fostering a more transformed and inclusive campus culture and climate to reduce incidents of homophobic violence and discrimination. Further research should focus on developing and testing tailored interventions that can effectively address these challenges and promote holistic well-being for LBQ students.

Supplementary Information

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Supplementary Material 1: COREQ checklist, completed checklist for reporting of qualitative research.

Supplementary Material 2: FGD Guide, topic guide used for discussion during data collection.

Supplementary Material 3: Codebook, tool used for thematic analysis of data.

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Authors' contributions
PM and MM conceptualized the study together with CBS. PM and NM conducted FGDs and collected data from participants. CBS, PM, MM and YS analysed and interpreted the data. CBS drafted the manuscript. All authors read, reviewed and approved the final manuscript.

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Data availability
Excerpts of the data are in this publication. The full transcripts data generated and used in the study are available from the corresponding author (carrie.brooke-sumner@mrc.ac.za) on reasonable request, which will be considered given the sensitive nature of the data and to protect participants.

Declarations

Ethics approval and consent to participate
This study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki. All participants provided informed consent prior to data collection, and their confidentiality and autonomy were respected throughout the research process. Ethical approval was granted by the South African Medical Research Council Human Research Ethics Committee (EC003-2/2022) and the University's Research Ethics Committee (BREC/00004253/2022). Voluntary informed and written consent was gained after an explanation of the study and ample time for participants to ask questions. The registrar of the university gave permission to conduct research with students. The focus-group discussions were carried out in accordance with the relevant guidelines and regulations stipulated by the ethics committees that granted approvals to conduct the study.

Consent for publication
Not applicable.

Competing interests
Mercilene Machisa is an editorial board member for BMC Global and Public Health. The remaining authors declare no competing interests.

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