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Impact of the COVID-19 pandemic on young people living with HIV in Lesotho: a qualitative study

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ABSTRACT

Introduction There is a growing body of research evidencing the detrimental impact of the COVID-19 pandemic on the mental health and well-being of young people. This impact may be worse in low-resource settings, especially those in sub-Saharan Africa, where pandemic impacts may be exacerbated by poverty, limited healthcare access and other health epidemics including HIV. We explored the COVID-19 pandemic impacts on young people living with HIV in Lesotho to understand the experiences of HIV management, well-being, financial stability and education status.

Methods Thirty-one semistructured, face-to-face interviews were conducted with young people aged 15–19 years of age living with HIV from eight districts across Lesotho. Interviews were conducted in Sesotho, audio-recorded, later transcribed and translated to English prior to analysis. Analysis consisted of a thematic analysis using principles of constant comparison to explore key and emerging themes.

Results Analysis revealed five major themes: 'financial instability and food insecurity', 'challenges to health and well-being', 'changing relationship dynamics', 'loss of educational opportunities' and 'understanding the threat of COVID-19'.

Conclusions While participants discussed being able to access antiretroviral therapy, this study highlights the significant impact of the COVID-19 pandemic and associated lockdown measures on the mental health and well-being, financial stability and educational development of young people living with HIV in Lesotho.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ The COVID-19 pandemic has had a profound effect on the mental health and well-being of young people. This impact is likely to exacerbate in vulnerable groups such as those living with HIV and those living in low-resource settings like Lesotho.

WHAT THIS STUDY ADDS

⇒ This is the first qualitative study to explore the impact of the COVID-19 pandemic on young people living with HIV in Lesotho.

⇒ Participants had continued to access antiretroviral therapy throughout the pandemic but had experienced a broad range of effects on their mental health including depression, anxiety and distress.

⇒ The pandemic also had a detrimental effect on the financial stability, educational development and food security of young people in Lesotho.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Psychosocial intervention development is required to support young people living with HIV to help address the impacts of the COVID-19 pandemic.

INTRODUCTION

There is a growing body of research evidencing the significant and detrimental impact of the COVID-19 pandemic on the mental health and well-being of young people, such as increased levels of depressive symptoms, anxiety, distress and suicidal thoughts.[1 2] Furthermore, with notable disruptions to typical routines through lockdowns, school closures, mask wearing and local travel restrictions, young people have also experienced loneliness, isolation, loss of education opportunities, reduced physical activity and disturbed sleep.[3] Most research has taken place in high-income settings, yet the COVID-19 pandemic is likely be most impactful to people living in resource-constrained settings, such as sub-Saharan Africa (SSA), where its effects are compounded by high poverty rates, inadequately resourced health systems and co-occurring HIV epidemics.[4]

COVID-19-related disruptions have affected crucial HIV services, including testing and access to medication. Challenges in medication supply chains, changes in national policies and resource reallocation have further exacerbated these disruptions.[5] A study conducted in Kenya identified a substantial decline in the number of individuals seeking HIV testing, accessing medication and

receiving treatment.[4] Similarly, a Ugandan study indicated that the pandemic had disrupted the provision of HIV services, resulting in missed appointments and treatment interruptions leading to additional health challenges and stressors for this group.[6] Modelling studies suggest that the disruptions caused by the pandemic in SSA will lead to significant increases in HIV transmission and related deaths.[7] The economic consequences of the pandemic have also had significant consequences for young people, with the pandemic exacerbating existing social and economic disparities through job losses and reduced household income, which affect the ability of vulnerable populations to not just access healthcare but to afford necessities such as food and shelter.[8 9]

Lesotho, a small landlocked country in southern Africa, has one of the highest HIV prevalence rates globally, of approximately 24%[10] with estimates for adolescents ranging from 3.4% to 11%.[11] However, the impact of the COVID-19 pandemic on young people living with HIV (YPLWH) in Lesotho remains a critical gap in the emerging literature in our understanding of the impacts of the pandemic on this group in low-resource settings. We aimed to explore the impact of the COVID-19 pandemic on YPLWH in Lesotho. An exploratory qualitative approach was used to develop a comprehensive understanding of the challenges faced during the pandemic in relation to their mental health and well-being, their HIV management and other psychosocial impacts.

MATERIALS AND METHODS

Research setting

Lesotho is a lower middle-income country where 49.7% of the population live in poverty.[9] Lesotho has a population of just over 2.3 million (75% are rural dwellers) with current life expectancy of 47 years for males and 54 years for females. Although significant resources have been invested in Lesotho to reduce the number of new infections, HIV incidence remains high.[12] The healthcare system suffers from chronic workforce shortages with approximately 6 nurses and 1 physician per 10 000 people. The WHO estimates that approximately 47 physicians per 10 000 people are to be required by 2030.[13] There is an established body of literature describing the associations of HIV in young people with mortality, mental and physical ill-health, poverty, reduced education attainment, social mobility and quality of life.[11 14] Consequently, third-sector and non-governmental organisations contribute significantly to supporting a fragile and suboptimal healthcare system and research contributing to the evidence base required by the Lesotho Government to continue working to control and further understand that the HIV epidemic is of paramount concern.[5] Sentebale is a non-profit organisation dedicated to supporting at-risk children and youth in Lesotho by offering crucial HIV education and psychosocial support. The organisation achieves this primarily by implementing various educational initiatives and organising camps at their specialised residential facility, Mamohato Children Centre, located in the capital city of Maseru. In addition, Sentebale conducts numerous community outreach programmes throughout Lesotho, collaborating closely with local communities to deliver essential HIV-related education (https://sentebale.org).

Participants and recruitment

Participants were recruited using an opportunity sampling method. Attendees due to attend one of Sentebale's HIV education residential camps for YPLWH were sent a camp welcome pack to their home address. The pack included a participant information sheet (PIS) describing the purpose of the study and what participation would entail. Eligible participants were asked if they wanted to take part in the study during the camp arrival process. Those who opted in to the study then completed a consent form with a member of the research team. For eligible participants aged under 16 years who wished to take part and arrived with a parent/guardian were asked to each complete a consent form during the camp arrival process. Eligible participants/parents/guardians were given the opportunity to ask questions about the study either before the residential camp using the research team contact details on the PIS, or once they had arrived at the camp. Prior to the start of the interview, all participants were reminded of their right to withdraw and that breaks could be taken throughout. Informed consent for the use of pseudonymised indirect quotes was obtained from all participants.

Data collection

A topic guide (online supplemental file 1) was co-developed by the research team, including the National Aids Commission, Lesotho, to address key research questions and findings emanating from other SSA countries including Kenya and Uganda.[4 6] Consequently, the topic guide included the following broad questions: 'How has the COVID-19 pandemic affected your life?', 'Do you access healthcare for your HIV or mental health?', 'Has the COVID-19 pandemic affected your mood or HIV management?', 'Do you have any further concerns related to COVID-19?' and 'Do you talk to friends about HIV?'. The topic guide was then translated into Sesotho (local language) by bilingual members of the research team (NM, MRak and MRam). Subsequently, the topic guide was the focus of a discussion with a patient and public involvement group which included five YPLWH and five social workers who work with YPLWH. The discussion explored whether the topic guide questions were relevant, appropriately phrased and ordered, and whether they would facilitate in-depth discussion around key research objectives without being burdensome to participants. While the topic guide was deemed appropriate across these domains, it was revised to include more fixed prompts to each question to promote a more in-depth discussion during the interview.

All interviews were led by NM, MRak or MRam and took place in a quiet office at the Mamohato Children Centre in Maseru, Lesotho, on 5 December 2022. Interviews were conducted face to face, in Sesotho, and lasted between 20 and 45 min. Audio from the interviews was recorded using a digital audio recorder and later transcribed verbatim by the research team. Transcripts were fidelity checked by reading through the transcript while listening to the audio-recorded interview. Identifiable information was redacted to prevent participant identification. Transcripts were translated into English by bilingual coauthors prior to analysis.

Data analysis

The study was exploratory in nature and therefore thematic analysis was conducted using the principle of constant comparison[15] to analyse the data. Braun and Clarke's six key stages in the thematic analysis of qualitative data were followed: (1) familiarisation (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining themes and (6) writing the data analysis.[16] Codes and subsequent subcategories were generated directly from topics raised in the data. Initial coding (conducted by TS and MER) was conducted inductively, after a period of familiarisation and rereading of the transcripts. These initial codes were generated based on their relevance to the research objectives, how frequently text pieces appeared in the transcripts and the impact on the described participant. Initial codes were then refined into overarching themes and discussed with the wider research team (NM, MRak and MRam), before being taken forward and subthemes defined from the data. Subthemes were then discussed with the wider research team and the most appropriate exemplifying pieces of data determined. Any discrepancies were solved through discussion in research team meetings. Throughout the analysis process, the research team engaged in open reflexivity during online analysis meetings to enhance the credibility and validity of the data analysis. Primarily, this was achieved through open discussion and acknowledgement of any presuppositions and biases. Critically, the research team worked collaboratively to minimise any potential impact they may have had and to ensure the trustworthiness of the analysis.[17]

Patient and public involvement

The study was designed in collaboration with the National Aids Commission, Lesotho, and a group of social workers working with YPLWH and YPLWH. Contributions included the development of the key topics to explore in the topic guide and question structuring. YPLWH provided feedback on the accessibility of the PIS and consent form and the appropriateness of the questions.

Table 1 Descriptive characteristics of interview participants in Lesotho

ID	Years in school	District	Years since HIV diagnosis
1	11	Butha-Buthe	8
2	10	Butha-Buthe	7
3	10	Butha-Buthe	3
4	11	Qacha's Nek	8
5	6	Mokhotlong	3
6	14	Maseru	5
7	17	Mhoek	8
8	12	Mhoek	6 months
9	13	Qacha's Nek	13
10	10	Qacha's Nek	13
11	10	Mafeteng	7
12	13	Maseru	8
13	11	Maseru	10
14	12	Qacha's Nek	11
15	13	Mokhotlong	10
16	11	Thaba Tseka	5
17	11	Butha-Buthe	5
18	13	Butha-Buthe	Since childhood
19	10	Mokhotlong	7
20	11	Mokhotlong	Since childhood
21	10	Thaba Tseka	Since childhood
22	11	Butha-Buthe	7
23	13	Mhoek	17
24	14	Mhoek	10
25	9	Qacha's Nek	11
26	8	Mokhotlong	9
27	9	Maseru	Not sure
28	14	Thaba Tseka	7
29	9	Mokhotlong	8
30	14	Maseru	Since birth
31	14	Ha Mabote	Since birth

RESULTS

Thirty-one interviews were completed with YPLWH aged between 15 and 19 years (mean 17.02 years) from eight districts in Lesotho. The participant group consisted of 17 females and 14 males. Descriptive data for all participants are presented in table 1. Analysis of the interview data revealed main themes of: 'financial instability and food insecurity', 'challenges to health and well-being', 'changing relationship dynamics', 'loss of educational opportunities' and 'understanding the threat of COVID-19'. Each theme is described below with data to support analysis.

Financial instability and food insecurity

Lost family income

Many participants said that the COVID-19 pandemic had negatively affected the income within their households. Several young people discussed how their parents or grandparents lost their jobs because they were unable to work or because workplaces had closed as a result of the nationwide lockdown, and if work was across the border in South Africa, they were unable to go to or return from work.

> The pandemic affected us negatively at home as my father had to stay home when it was at its peak because my father's workplace closed down, therefore he only got a portion of his salary. (Participant 2)

> It was not easy because my mother lost her job, and my father was the only one working. (Participant 31)

> COVID-19 did bring a negative impact on my family because my father works in South Africa. Then, he was locked up in another country. We were struggling financially. For some families, they lost jobs due COVID-19. (Participant 16)

Food insecurity

Participants were asked how the reduction of household income had impacted them and many expressed food scarcity, with some participants relying on the generosity of other village/community members sharing food.

> My Aunt stopped working during the pandemic, so it was hard to have food and other basic needs. (Participant 13)

> Given that my mother was not going to work as a result of the nation-wide lockdown there were times when we had no food at home. (Participant 9)

Income diversification

Some young people described how their household had to rely on alternative income sources during the COVID-19 pandemic, such as through selling their livestock, whereas others said that they were able to get by because they grew food at home so they were able to eat.

> Finances at home were not really affected because my parents opted for selling their livestock for survival. (Participant 5)

> My sisters stopped working but nothing really changed for we produce crops at home, so we still had food. (Participant 14)

Challenges to health and well-being

Stress, anxiety and low mood

Participants who experienced a lack of access to food and necessities expressed changes in their mood.

> COVID-19 affected my mood because I got worried about food and toiletries when my dad had no job. (Participant 27)

> During the pandemic seeing my mother home not going to work, made me suffer from low mood swings. Given that my mother was not going to work as a result of the lockdown, there were times when we had no food at home. (Participant 9)

Additionally, participants who had experienced bereavement because of the pandemic also experienced symptoms of anxiety and low mood. Many participants were fearful or scared of losing their lives or of those around them.

> Because of COVID-19 one of my teachers passed away and that made me very sad and my mood was very low during this ordeal. (Participant 8)

> COVID-19 really frightened me because I feared for my life and the lives of those close to me. My mother once tested positive, and I was scared for her life. (Participant 3)

> He [father] got infected with COVID-19, I was so stressed seeing how it was killing people. I was so scared for he is my only parent still alive. (Participant 16)

In addition to school closures, participants said that their teen clubs (operated by Baylor College of Medicine, to provide social support to YPLWH) were also closed during the pandemic and many said that this made them feel unhappy/sad.

> The teen club did not operate during the peak of COVID-19 and this made me sad. (Participant 4)

Fear of emerging variants

While many participants stated that they did not believe that COVID-19 existed in Lesotho and so were not scared, some participants discussed being fearful of the new variants that emerged throughout this period and reflected their evolving stresses and anxieties during the pandemic.

> The emergence of new variants did not sit me well as I was scared of dying of those new waves. (Participant 26)

In addition to being fearful of new variants because of being scared of dying, others were fearful of any further impact on household finances.

> I am concerned about the emergence of new variants because of the fear that the state of finances at home will be negatively affected. My mother works and, at times, does not get paid, ever since the emergence of COVID-19. (Participant 1)

HIV medication and service availability

Participants were still able to access HIV services and collect their antiretroviral therapy (ART) during the COVID-19 pandemic; however, some said that it took them longer to receive their medication as they had to queue for a longer period.

> I still accessed services, but queues became longer and I think that is how some people got infected with COVID-19. Also, I did not like the masks, they were suffocating. I still got my medication. (Participant 16)

> We were still able to access our health care services despite the challenges. Our movements restricted. We were

whipped by soldiers when we were traveling, but we were able to find another way by taking another route at the far mountains. (Participant 21)

Changing relationship dynamics

Some young people found that because their family members were home, they were able to have more time together as a family.

> During the COVID-19 lockdown, we began to spend a lot of time with my family, and I realized the importance of family. (Participant 12)

Some missed family members who were working more because of their occupation.

> In my family, we were not struggling with food for my father at the time was working at Paray [hospital] with COVID-19 patients. He was always busy, had no time for us and I missed talking to him. (Participant 16)

Loss of educational opportunities

Participants felt that their education had been affected negatively by the school closures during the pandemic. Many also reflected that school closures meant that they were moved on to their next classes without appropriate qualifying assessments.

> COVID-19 affected my life negatively because schools closed down. We have been taken from one class to the next without proper evaluation. (Participant 2)

> Another concern is that I suffered academically due to the fact that schools closed for a long time, and I was taken from one class to the next without any assessment. (Participant 1)

Additionally, several participants talked about failing grades or not getting the grades they were expecting due to the pandemic. Some participants also said that their school fees could not be paid because of reduced household income.

> As a result of COVID-19 I failed at school, and I had to repeat a Grade. (Participant 8)

> It affected me badly for I did not do grade ten, in grade eleven I was struggling had to do two syllabuses in one go. I did not perform well at my final Examination as a result of COVID-19. (Participant 15)

Understanding the threat of COVID-19

Denialism and uncertainty

Many participants said that they had not been concerned about COVID-19 because they did not believe that it existed in Lesotho. It was only when new variants began to emerge that more fear was expressed from participants.

> It [COVID-19] never affected my mood because I did not believe that COVID-19 existed in Lesotho. (Participant 30)

> The new variants affected me because at first, I thought it was for old people. When the new variants emerged I was scared that it will come to me. Although I was scared, I never believed COVID-19 was there. (Participant 31)

DISCUSSION

This exploratory qualitative study illustrates the significant impact of the COVID-19 pandemic on YPLWH in Lesotho, across several health and psychosocial domains. Participants described how they had managed to continue to access their ART, but that the pandemic had provided significant challenges to their mental health and well-being, with many experiencing low mood, anxiety and stress. Participants discussed financial hardships because of job losses in the household and food shortages. There has been a significant loss of educational opportunities as participants described being no longer able to afford school fees or transport to get to school, while others described needing to begin work to provide household income. These findings have been reported in other youth populations not just those living with HIV.[1 18] Positively, participants talked of renewed and strengthened relationships with family members whom they had spent more time with as a result of lockdown measures and travel restrictions. Participants expressed varying degrees of understanding in relation to COVID-19, with some denying its existence while others experienced high levels of concerns about their and family members' safety.

There is a growing body of literature suggesting ART adherence has been significantly disrupted in SSA (Uganda, South Africa and Kenya) and in Southeast Asia[19] as a result of the COVID-19 pandemic.[4–6] This is a consequence of several factors: health facilities were repurposed for COVID-19 treatment or closed completely; human resource shortages due to illness, self-quarantine, strikes or diversion to the COVID-19 response; decreased availability of public transportation; and fear of attending healthcare settings due to increased risk of COVID-19 exposure or police/military brutality if caught outside during strict lockdown mandates.[5] However, participants in this study suggested that ART access had been maintained through the pandemic period. Participants discussed some of the above reasons as additional barriers or challenges to them accessing medication as opposed to stopping them completely. Other factors may have contributed to this finding, such as the ongoing HIV education campaigns in Lesotho targeted at young people and the involvement of the US Presidents Emergency Plan for AIDS Relief, which shifted pre-exposure prophylaxis and ART initiations and refills from large community outreach facilities to more community-based drop-in centres for key and priority populations.[5] The impact of the pandemic demonstrated in this study is consistent with the wider literature that shows the COVID-19 pandemic as a precipitator of elevated levels of psychosocial strain leading to mental ill-health and decreased well-being[20] with adolescents being particularly vulnerable[21]; however, evidence on the pandemic's impact on adolescent mental health and well-being in resource-limited settings has been limited. A multicountry cohort study in Ethiopia, India, Peru and Vietnam reported anxiety symptoms in up to 41%.[22] This study also found that pandemic-related stressors such as health risks,

economic adversity, food insecurity, and educational or employment disruption were all risk factors for anxiety and depressive symptoms—all of which were discussed by participants in this study. In a mobile phone-based survey among parent–adolescent dyads in Kenya, over 33% of adolescents had depressive symptoms, which were positively associated with income losses of the adult household member.[23] Similarly, a survey across Burkina Faso, Ethiopia, Ghana, Nigeria and Tanzania reported that the prevalence of psychological distress was 86% higher during the pandemic in adolescents who were also three times more likely to experience depressive symptoms and 3.4 times more likely to develop anxiety during the pandemic compared with before.[24]

Findings relating to financial instability and food insecurity for YPLWH in Lesotho are consistent with other research. Chin *et al* indicated that reduced household income during the COVID-19 pandemic was associated with stressful family relations between spouses and that the pandemic affected all family members.[25 26] This was reported by the participants here with financial pressures causing some to be removed from school in favour of earning money to contribute to household income, but the loss of education opportunities discussed here is consistent with evidence suggesting that education deficits are present in young people across a number of other low/middle-income countries (Brazil, Colombia, Mexico and South Africa).[27]

The lockdown regulations resulted in many families now working from home and children home schooling, thus generally being in closer proximity for longer periods than usual.[28] Consequently, some families experienced family feuds and conflict in their homes, as spending more time together resulted in frustration and arguments.[29] Furthermore, while some participants in this study discussed this, most found that spending more time together created opportunities to build stronger relationships among family members, especially siblings, which is consistent with other evidence from South Africa and several North African countries.[28 30]

Participants demonstrated a mixed understanding of COVID-19, with some not believing it existed, while some having no information about new variants and some questioning the authenticity or necessity of COVID-19 vaccination. This is largely consistent with evidence from a large survey study across Africa that found similar levels of COVID-19 public health-related misinformation in Cameroon, Ghana, Kenya, Nigeria, South Africa, Tanzania and Uganda.[31 32]

This study demonstrates the significant impacts experienced by YPLWH in Lesotho across several multifaceted yet linked psychosocial domains. While the participants in this study discussed being able to maintain their ART access and adherence throughout this period, more work is required to understand the impact of the COVID-19 pandemic on HIV testing, in particular in high-risk or marginalised groups. There is a clear need for evidence-based interventions or programmes that can support YPLWH (and young people more broadly) with their mental health and well-being in Lesotho in the event of future pandemics and perhaps more generally.

Lesotho is a lower middle-income country and the extent of the financial instability and food insecurity caused by the COVID-19 pandemic may need to be further explored to illustrate its full impact and pervasiveness. This is also the case for the loss of educational opportunities discussed by participants—assessing the extent of an 'education gap' among young people in Lesotho (not just those with HIV/AIDS) and developing intervention that may address this gap are critical and urgent priorities. A major concern that requires further investigation is exploring whether those who left school during the pandemic have returned or will return to school, or how they can be supported to do so.[27]

Findings from this study suggest that there was a high degree of misinformation about COVID-19 and varying levels of credibility afforded to COVID-19 as a genuine health threat, including new variants. Further research is required to understand how public health-related information is disseminated, understood and adopted in Lesotho, especially in rural areas, to inform the development of future public health information dissemination strategies.[32 33]

The study has several limitations. An opportunity sample was used to recruit participants through Sentebale youth programme registrations and Baylor teen club memberships, leading perhaps to a selective group of participants who have experienced a greater degree of HIV-related education due to their attendances at such programmes and therefore may not fully represent YPLWH in Lesotho more broadly. Recruitment of YPLWH without such experiences may have yielded a more diverse set of findings, especially in discussions relating to HIV care, medication access/adherence and wider mental health and well-being impacts. As data were collected over two fixed time periods, it was not possible to iteratively evolve the topic guide over time to further explore emerging topics in the data. This may have led to an increased depth and comprehensive understanding of the key issues for YPLWH,[34] for example, the study has limited contextual exploration and a more in-depth incorporation of socioeconomic factors contributing to financial instability, or a nuanced understanding of educational challenges could enhance the comprehensiveness of the findings. However, as far as the authors are aware, this is the first qualitative study to explore the impact of the COVID-19 pandemic on YPLWH in Lesotho and has demonstrated a broad range of multifaceted and interlinked impacts and highlights several target areas for bespoke psychosocial support interventions.

CONCLUSION

The COVID-19 pandemic has had a significant impact on YPLWH in Lesotho. Despite ART supply and access being maintained (through additional third-sector support),

the pandemic has clearly had adverse impacts on the mental health and well-being, education and financial security of YPLWH. As the world continues to recover from COVID-19, concerted and multisectoral efforts are needed to ensure that the often-neglected SSA adolescents receive mental health and well-being support, and interventions to remediate the educational gaps and financial instability experienced throughout the pandemic. Research with this vulnerable group is critical to inform effective future pandemic planning.

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Contributors The study concept was conceived by TS and GL. Study design was completed collaboratively between TS, GL, MER, NM, MRam, MRak and RM. Implementation of the study design was managed by NM, MRam and MRak. Data management was led by MRam. Data analysis was led by TS and MER with significant contributions from NM, MRam, MRak, RM and GL with regard to the contextual interpretation of findings. TS led manuscript development with contributions from MER, NM, MRak, MRam, CM and GL. All authors approved the final version of the manuscript. TS is the overall guarantor.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were involved in the design, or conduct, or reporting, or dissemination plans of this research. Refer to the Methods section for further details.

Patient consent for publication Not required.

Ethics approval This study involves human participants and research ethics approvals were obtained from Keele University (reference: 2022-0313-317) and the Ministry of Health, Lesotho (reference: 183-2022). Participants gave informed consent to participate in the study before taking part.

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