COVID-19 and mental health services in Sub-Saharan Africa: A critical literature review

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ABSTRACT

Background: The COVID-19 pandemic has wrought a profound impact on mental health in Sub- Saharan Africa, exacerbating existing disparities and rendering individuals undergoing treatment particularly susceptible. This comprehensive critical review delves into the scope, nature, and extent of COVID-19 impact on mental health services in Sub- Saharan Africa, while concurrently elucidating pivotal lessons and exemplary practices learnt from periods of lockdown.

Methods: The methodology was guided by Jesson & Laccy's guide on how to conduct critical literature reviews. Articles were comprehensively sought through two academic databases (PubMed and Google Scholar), complemented by targeted searches on the WHO website and official public health websites of relevant Sub-Saharan African countries.

Results: The investigation reveals a surge in mental health challenges, notably marked by a significant escalation in anxiety, depression, and post-traumatic stress disorder. Disruptions to care services, financial hardships, and the pervasive effects of social isolation further compound this escalation. The pre-existing inequalities in access to and quality of care were accentuated during this crisis, with marginalized groups encountering heightened impediments to essential services. In navigating this unprecedented challenge, communities emerged as integral agents in establishing supportive networks and implementing culturally sensitive interventions. Technology, such as telemedicine and online resources, played a pivotal role in bridging access gaps, particularly in remote areas. The synthesis of best practices for supporting mental health patients during lockdowns encompasses targeted interventions for vulnerable groups, including adolescents and pregnant women. Empowering communities through economic support and mental health literacy programs was identified as crucial. The integration of technology, such as the development of robust telemedicine frameworks, virtual training in curricula, and the utilization of digital platforms for interventions and public messaging, emerged as a cornerstone in addressing access disparities. Community engagement and resilience-building strategies gained prominence, emphasizing the necessity of collaboration between healthcare providers and communities. Promotion of peer support groups, home-based care, and the preservation of traditional healing practices were underscored as essential components.

Conclusion: The study underscores the need to adapt and optimize mental health services during emergencies. This entails prioritizing mental health within emergency response frameworks, exploring alternative service delivery methods, and fortifying data collection and research efforts.

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1. Introduction

Sub-Saharan Africa (SSA), a region teeming with resilience and cultural richness, faces a unique challenge in the wake of the COVID-19 pandemic: a surge in mental health burdens amidst already over-stretched healthcare systems and persistent stigma [1]. While the virus primarily affected physical health, its invisible tendrils deeply impacted the well-being, health, and welfare of individuals on mental health treatment [1,2]. This review examines the scope, nature, and extent of this "invisible pandemic" on mental health patients in Sub-Saharan Africa, while also exploring the valuable lessons and best practices learned during the COVID-19 lockdown periods.

The pandemic's impact on mental health in Sub-Saharan Africa is multifaceted and far-reaching. Existing mental health challenges, often rooted in poverty, conflict, and trauma, were exacerbated by the pandemic's disruptions [3]. Studies have reported an increased prevalence of mental disorders. In England, Lewis et al. reported a significant rise in anxiety, depression, and post-traumatic stress disorder (PTSD) among individuals with pre-existing mental health conditions [4]. Lockdowns, social isolation, and economic hardship fueled anxieties and depressive symptoms, while the pandemic itself triggered trauma-related responses in vulnerable populations [5,6]. Additionally, the pandemic resulted in disrupted access to care. Lockdowns and limited healthcare resources severely hampered access to crucial mental health services [7]. Medication shortages, transportation disruptions, and fear of contracting the virus at healthcare facilities prevented many patients from seeking or continuing treatment [8]. The pandemic also resulted in the exacerbation of stigma. The stigma surrounding mental illness, already prevalent in many African cultures, intensified during the pandemic [9]. Misinformation and fear associated with COVID-19 led to social isolation and discrimination against individuals with mental illness, further hindering their access to care and support [10]. Equally important was the trend of increased substance abuse. The stress and anxiety of the pandemic led some individuals to turn to substance abuse as a coping mechanism, further jeopardizing their mental and physical health [11].

The COVID-19 pandemic has undoubtedly exposed the vulnerabilities of mental health care in SSA. To provide a comprehensive review of COVID-19's impact on mental health services in SSA, this study aimed to address the following research questions:

1. What is the scope, nature and extent of COVID-19 on well-being, health and welfare of individuals on mental health treatment in SSA?
2. What are the documented lessons and best practices in supporting mental health patients in SSA during the COVID lockdown periods in SSA?
3. What are the existing policies and strategies for the provision of mental health services for clients during the COVID lockdown period in SSA?

2. Methods

The methodology was guided by Jesson & Laccy's guide on how to conduct critical literature reviews [12]. This critical literature review aimed to delve beyond a mere description of existing research, striving to make a conceptual and theoretical contribution to the understanding of the impact of COVID-19 on mental health services for individuals undergoing treatment in Sub-Saharan Africa. To achieve this, English-language publications (reviews, original research, conceptual articles, and commentaries) published between 2020 and 2023 were comprehensively sought through two academic databases (PubMed and Google Scholar), complemented by targeted searches on the WHO website and official public health websites of relevant Sub-Saharan African countries.

Literature searches were conducted per the research question. The search strategy employed a combination of broad and specific keywords. While "COVID-19," "lockdown," "mental health patients," "mental health treatment," "mental health services," and "Africa" served as core terms, site-specific terms like "health policy," "strategy," and "plan" were utilized for WHO and public health websites. Boolean operators (AND and OR) facilitated the refinement of the search, ensuring both comprehensiveness and relevance. More details on the search strategy are provided in Supplementary File 1. To further ensure a nuanced and insightful review, the Population-Concept-Context (PCC) framework, outlined in Table 1, guided the analysis.

Database searches were conducted from 18th – 20th December 2023. Two researchers (TD & PGI) searched databases for relevant literature. Researchers were able to work collaboratively using Convidence software (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org.). Briefly, the software allowed for automatic de-duplication as it automatically removed duplicate references from different databases and sources, ensuring a clean and accurate reference list. The software also facilitated collaborative screening and selection of relevant articles through a blinded voting system, that improved objectivity and efficiency.

Following article selection through database searches and screening, NVivo software (QSR International. NVivo 14 for Windows. QSR International Pty Ltd., 2023.) facilitated a rich and nuanced analysis of the retained full-text articles. This qualitative data analysis software was instrumental in organizing research findings, exploring themes, and uncovering key insights related to our research questions. Within NVivo, articles were imported and categorized using nodes aligned with each research question (e.g., "Scope of COVID Impact," "Lessons and Best Practices," "Existing Policies"). These nodes further branched into sub-nodes capturing specific themes, such as "Mental Health Service Disruptions", "Telehealth Adoption" or "Government Initiatives." Textual data relevant to these themes were coded, allowing for efficient retrieval and analysis across articles. NVivo's "Queries" function enabled us to identify patterns and connections, while visualization tools generated mind maps and concept maps, visually representing relationships between themes and facilitating critical interpretation. Memos within NVivo documented our reflections and critical analysis, guiding the synthesis of results and the development of a comprehensive and insightful final review.

3. Results

Literature searches yielded a total of 253 articles. After screening abstracts based on our inclusion/exclusion criteria, we retained 36 articles for importing into NVivo14 for coding.

3.1. Review question 1

Twenty-one articles [1,9,13–31] were included for research question 1. More details are provided in Table 2 and Fig. 1.

Theme 1: Scope and Nature

Sub-theme 1: Negative Impacts on Care Users:

Table 1

Population-concept-context framework for this critical literature review.

Research Question	Population	Concept	Contex
1	Mental health patients	Impact of COVID on service provision for Mental health patients	Sub Saharan Africa
2	Mental health patients	Lessons and best practices in supporting mental health patients during COVID-19	Sub Saharan Africa
3	Mental health patients	Policy and strategy documents for mental health service delivery in the context of a COVID-19 lockdown	Democratic Republic of Congo, Nigeria, Rwanda and South Africa

Table 2

Characteristics of included studies on the scope, nature, and extent of COVID-19 impact on mental health services provision.

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
1	Molebatsi et al. (2021)	Review	Sub-Saharan Africa (SSA)	COVID-19 pandemic preparedness and action in Sub-Saharan Africa (SSA) shows that individuals receiving mental health treatment were affected in many ways. These impacts include increased anxiety, economic challenges, and disruptions in daily routines. **The strain on mental health services is evident, with concerns about resource redirection to COVID-19 response, potential hindrances to help-seeking behaviour, and inadequate coordination.** While some SSA countries have mental health guidelines, others lack specific measures for addressing mental health needs during the pandemic. Overall, the study emphasizes the urgent need for governments to implement measures mitigating the mental health effects of COVID-19, including clearly defined referral pathways and guidelines tailored to specific vulnerable populations, providing crucial insights into the challenges faced by individuals in SSA seeking mental health support amid the ongoing pandemic.	N/A
2	Oppong Asante et al. (2021)	Letter to the Editor	Sub-Saharan Africa (SSA)	The impact of COVID-19 on the well-being, health, and welfare of individuals receiving mental health treatment in sub-Saharan Africa (SSA) is multifaceted and substantial. SSA, characterized by high poverty rates and limited access to mental health care, faces unique challenges exacerbated by the pandemic. **The closure of schools, a critical support system for many adolescents, amplifies domestic stressors and exposes vulnerable individuals to increased familial adversity, particularly affecting girls.** The suspension of school-leaving examinations contributes to anxiety among final-year students, potentially leading to mental health issues. **Limited access to professional mental health care in the region compounds the challenges, with a significant portion of the population unable to receive necessary treatment.** Moreover, the digital divide hampers the effectiveness of online learning initiatives. Governments, schools, and mental health researchers in SSA need to collaboratively implement strategies to mitigate the adverse effects of COVID-19 on mental health, considering the socio-economic context and specific vulnerabilities of this population.	Adolescents
3	Jaguga et al. (2020)	Narrative review	Kenya	The pandemic has significantly heightened the challenges faced people suffering from mental health. **The imposition of lockdowns, social isolation measures, and the overall disruption of daily life have exacerbated pre-existing mental health conditions and triggered new cases. Limited access to mental health services due to the strain on healthcare systems and the redirection of resources to combat the virus has created barriers to treatment.** Financial uncertainties, loss of employment, and the increased risk of infection have contributed to heightened stress levels and anxiety. Additionally, the stigma surrounding mental health issues in many societies, including Kenya, has been exacerbated during the pandemic, further hindering individuals from seeking and receiving the support they need. Addressing the mental health implications of COVID-19 on individuals in mental health treatment requires a holistic approach that considers both the direct and indirect consequences of the pandemic on the well-being of this population.	

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
4	Nguse et al. (2021)	Review	South Africa	The pandemic has exacerbated existing challenges within the mental health care system, further marginalizing individuals who were already grappling with structural inequalities, poverty, and limited access to quality mental health services. A significant increase in mental health issues among South Africans, including heightened rates of depression, anxiety, and post-traumatic stress was noted. **Lockdown measures have posed obstacles to accessing mental health care services, leading to an increase in treatment defaults. Moreover, the economic impact of the pandemic, such as unemployment and food insecurity, has intensified the psychological distress experienced by individuals, further straining an already fragile mental health infrastructure.** The government's response, primarily focused on biomedical aspects, is critiqued for neglecting the psychosocial dimensions of the crisis. The urgent need for a comprehensive and multidisciplinary approach was recommended, with the psychology profession playing a pivotal role in addressing the mental health consequences of COVID-19 in South Africa.	N/A
5	Gyasi (2020)	Review	South Africa	The pandemic has disrupted the delivery of mental health services, creating challenges in accessing consistent and timely care. Social distancing measures and lockdowns have led to increased social isolation, exacerbating feelings of loneliness and anxiety among individuals already grappling with mental health issues. **Limited access to in-person counseling and therapy sessions due to safety concerns has prompted a shift towards digital mental health services, but not all individuals have equal access to these resources.** The economic impact of the pandemic has contributed to heightened stress levels, especially for those facing financial hardships. Additionally, the uncertainty surrounding the virus and its consequences has led to increased psychological distress. Overall, the COVID-19 pandemic has underscored the critical need for comprehensive and adaptable mental health support systems to address the unique challenges faced by individuals undergoing mental health treatment in South Africa.	N/A
6	Armiya'u et al. (2022)	Cross sectional study	Africa	The pandemic has significantly disrupted mental health services, leading to challenges in accessing regular treatments and therapies. The restrictions imposed to curb the virus's spread, such as lockdowns and movement limitations, have heightened feelings of isolation and loneliness among individuals in mental health treatment. **Financial difficulties and the scarcity of essential resources during lockdowns have exacerbated stress and anxiety levels.** Moreover, the **fear of infection, uncertainties about the future, and the loss of routine have contributed to the exacerbation of pre-existing mental health conditions and the emergence of new challenges.** The shift to virtual mental health services has presented both opportunities and challenges, as some individuals may face barriers to technology access. Overall, the impact of COVID-19 on mental health treatment in Nigeria underscores the urgent need for targeted interventions, increased mental health awareness, and strengthened support systems to mitigate the long-term consequences of the pandemic on individuals' mental well-being.	67 males, 54 females, and 1 person preferred not to disclose. The majority were single (104), with diverse socioeconomic statuses and professions. Nine participants reported being diagnosed with COVID-19, and 18 worked in health settings.

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
7	Aborode et al. 2022	review	Nigeria	The pandemic has not only exacerbated existing challenges within the mental health sector but has also created new hurdles. The strain on Nigeria's healthcare system due to the surge in COVID-19 cases has led to a diversion of resources away from mental health services, contributing to a neglect of patients with pre-existing mental health conditions. **Widespread misinformation, distrust in the government, and economic hardships have fueled stigmatization of mental health issues, hindering access to care. The closure of mental health facilities, redeployment of healthcare professionals, and restrictions on movement have disrupted treatment continuity, leading to potential relapses and worsening of conditions.** Overall, the consequences of COVID-19 on mental health treatment in Nigeria underscore the urgent need for a comprehensive and integrated approach to address the intersecting challenges of the pandemic and mental health care.	N/A
8	Aluh & Onu (2020)	Opinion	Nigeria	The pandemic has exacerbated existing mental health challenges by inducing fear, anxiety, and social isolation, further intensifying the struggles of those already grappling with mental health issues. **The closure of public spaces, economic downturn, and stay-at-home orders have disrupted regular mental health services, limiting access to treatments and support systems.** The economic adversities, coupled with the potential increase in poverty and unemployment, have heightened stress levels among individuals already vulnerable to mental health issues. The isolation measures may exacerbate feelings of loneliness and helplessness, posing additional challenges to those undergoing mental health treatment. Furthermore, the psychosocial impact of the pandemic, such as boredom, stigma, and heightened anxiety, may have compounding effects on individuals' mental health. The need for targeted interventions, including community support, telehealth services, and the integration of mental health into primary care, is crucial to mitigate the far-reaching consequences of COVID-19 on mental health treatment outcomes in Nigeria.	N/A
9	Mwesiga et al. (2021)	Correspondence	Uganda	The pandemic has strained an already limited mental health infrastructure, with existing psychiatric facilities, such as Butabika Hospital, facing challenges due to increased demand for isolation spaces for COVID-19 patients. The transformation of psychiatric units into isolation centers underscores the adaptability required to navigate resource constraints. The high bed occupancy rate at Butabika Hospital prior to the pandemic points to pre-existing challenges in meeting mental health needs. **The shift towards community mental health care becomes crucial during COVID-19, emphasizing the importance of integrated care models and the Safewards approach to ensure safety for both patients and healthcare workers. The inadequacy of pre-pandemic financing highlights the urgent need for increased funding to scale up mental health services, not only to address immediate challenges posed by COVID-19 but also to prevent a potential surge in mental health-related complications, reflecting the broader impact on the mental well-being of individuals in Uganda.**	N/A
10	De Man et al. (2022)	Cross-sectional study	South Africa	Nearly half of the participants met the diagnostic thresholds (46.0% and 47.2% of participants met	The participants included had a mean age of 33.12 years, with 74.7% females, and diverse

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
				the diagnostic threshold of anxiety and depressive disorder, respectively) during the strict stay-at-home order. The pandemic has exposed vulnerable groups, as individuals with pre-existing mental health conditions reported higher severity of symptoms. **The economic fallout, loss of income, and containment-related distress have added layers of stress, impacting daily lives significantly. The study reveals that less than 20% of those experiencing mental health challenges sought formal mental health support.** Factors such as younger age, female gender, and urban residence are associated with poorer mental health outcomes. However, the findings are limited to a specific region and a self-selected sample. The study underscores the urgency of enhancing accessibility to tailored mental health support and integrating psychoeducation into public health communications to better support this vulnerable population during the ongoing pandemic.	racial representation: 26.9% Black, 4.2% Indian, 18.1% White, and 48.6% Coloured. Before the onset of COVID-19, the employment status of the participants in the study varied, with 47.7% being formal sector employees. 6.0%, identified as self-employed, while 3.8% were engaged in casual employment. The unemployed constituted 4.3% of the sample, and 37.6% identified as students. Also 0.8% reported being retired.
11	Wettstein et al. (2022)	Retrospective study (interrupted time-series analysis)	South Africa	A substantial decrease in hospital admission rates for any mental disorder by 62% (OR 0.38) was observed, with outpatient consultation rates diminishing by 26% (OR 0.74) after the initiation of the lockdown in March 2020. It was evident that mental health care utilization rates for various disorders, including depression and anxiety, did not recover to pre-pandemic levels by June 2020. Notably, the ban on alcohol sales emerged as a potential complicating factor, with increased health care contacts for alcohol withdrawal syndrome. The findings raise concerns about unmet mental health needs, emphasizing the importance of integrated strategies to ensure ongoing access to mental health care services during periods of lockdown. The study also hints at **the role of telemedicine in mitigating the decline in outpatient care**, suggesting a potential avenue for maintaining mental health support in the face of external disruptions. Overall, the impact of COVID-19 on mental health treatment in South Africa highlights the necessity of comprehensive public health planning to safeguard the mental well-being of individuals during global health crises.	The median age was 43 years and 53% were women. The cohort remained relatively consistent in terms of age and sex.
12	Davies et al. (2023)	Cross-sectional qualitative study	South Africa	During the initial 'hard lockdown,' the closure of the economy and restricted movements resulted in income loss, food insecurity, and increased vulnerability to mental illnesses for care users. Outpatient psychiatric medical visits at specialist hospitals decreased from 1946 to 1537, and inpatient admissions to specialist hospitals dropped from 559 to 345 during the same period. The closure of therapeutic units and interruption of psychosocial programs led to a reduction in treatment numbers from 1533 to 695. **Homeless mental health care users faced additional challenges due to reduced access to usual services and limited food and shelter. The study also highlighted the drastic rise in mental health care needs of healthcare workers, with reports of burnout and increased mental health needs.** These numbers underscore the severe negative impacts on the well-being, health, and welfare of individuals on mental health treatment in South Africa, emphasizing the urgent need for policy reforms and increased resources to address the mental health crisis exacerbated by the pandemic.	The study included public sector psychiatrist, public sector psychologist, public sector mental health nurse, mental health and substance use public sector servant, NGO service provider, registered counsellor and an occupational therapist.
13	Magamela et al. (2021)	Letter to the Editor	Africa	The implementation of essential measures such as lockdowns and quarantines, aimed at mitigating the spread of the virus, has resulted in heightened feelings of uncertainty, unrest, and loneliness	N/A

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
				among the population. For individuals in South Africa receiving mental health treatment, these challenges are compounded by existing issues such as a shortage of mental health resources, medical professionals, and infrastructure. **The prevalence of gender-based violence and substance abuse in the region further exacerbates the consequences of isolation and reduced social contact.** Additionally, the economic strain, job losses, and poverty contribute to difficulties in adhering to preventive measures. **Mental health challenges brought about by the pandemic may have long-lasting effects, and the inadequate mental health resources in South Africa may lead to undiagnosed mental disorders, amplifying psychological harm.** The conclusion emphasizes the necessity of recognizing and addressing the mental health aspect of the pandemic in the overall response, advocating for the integration of mental health interventions into public health plans and emergency responses.	
14	Wooyoung Kim et al. (2021)	Cross sectional qualitative study	South Africa	The mental health care system faced unprecedented challenges, with healthcare workers experiencing extreme stress, fear, and anxiety due to unsafe working conditions, the fear of infection, and inadequate protective measures. The shortage of personal protective equipment intensified distress, leading to frustration and negative feelings among healthcare workers. The prevalence rates of psychiatric disorders among the sampled individuals were 24% for depression, 20% for anxiety, 13% for post-traumatic stress disorder (PTSD), and 4% for bipolar disorder. **Staff shortages and redeployment, coupled with pre-existing resource constraints, exacerbated burnout and guilt among healthcare professionals.** The infrastructural limitations in public psychiatric care facilities, including limited space, insufficient beds, and overcrowded wards, further compromised patient care. The long-term resource and infrastructural constraints in the public mental health system were magnified, highlighting systemic failures. The mental health burdens on healthcare workers during different lockdown levels underscore the need for urgent interventions to address the psychological well-being of staff, enhance hospital preparedness, and combat systemic challenges to ensure the effective delivery of mental health services in South Africa.	The participants encompassed various roles such as administration, cleaning staff, consultants, nurses, registrars, students, etc. The qualitative sample had 39 women and 16 men, with an average age of 39. The interviewees represented diverse roles, including 33 nurses, nine psychiatrists, four administrative staff, three occupational therapists, two registrars, two psychologists, one medical officer, and one security guard.
15	Chen et al. (2021)	Systematic review and meta analysis	Africa	The higher prevalence rates of anxiety (37%) and depression (45%) in the general population and healthcare workers in Sub-Saharan Africa, compared to other regions, underscore the unique challenges faced by individuals in this region. The findings also emphasize the substantial burden on the mental health of frontline healthcare workers, with a prevalence rate of 49%, highlighting the need for tailored mental health support for this group. The comparison with pre-COVID estimates in various African countries further strengthens the evidence of a heightened prevalence of mental health symptoms during the pandemic, emphasizing the urgency for continued monitoring and research to understand the evolving impact of COVID-19 on the well-being, health, and welfare of individuals undergoing mental health treatment in Sub-Saharan Africa.	N/A
16	WHO, 2022	Scientific Brief	Africa	Between November and December 2021, **disruptions to mental health services were**	N/A

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
17	WHO, 2020	Cross sectional study (Survey)	Africa	**widespread, with over 33% of WHO Member States reporting ongoing disruptions to mental, neurological, and substance use services.** The pandemic led to reduced outpatient appointments, limited emergency department admissions, and a shift to virtual inpatient services. Digital technologies were used to mitigate disruptions, but faced barriers like low technological literacy. Despite challenges, over 75% of responding WHO Member States reported improvements in the magnitude of disruptions to mental health services compared to earlier in 2021. Psychological interventions aimed at preventing or reducing pandemic-related mental health problems were effective, but faced challenges such as a lack of mental health professionals, especially in low- and middle-income countries. **The evidence suggests a global increase in mental health problems during the pandemic, with concerns about the longer-term impact on mental health and suicide rates, particularly among young people. The pandemic widened the mental health treatment gap, highlighting the need to scale up mental health services as an integral component of universal health coverage.** WHO emphasizes the continued importance of mental health as an essential health service during the COVID-19 pandemic and has developed resources to address mental health needs and promote resilience and recovery. The findings reveal extensive disruptions to services for mental, neurological, and substance use disorders, with outpatient and community-based mental health services being particularly affected. Mental health prevention and promotion programs faced severe setbacks when they were most needed. The survey underscores the vulnerability of already strained health systems in the African Region, emphasizing the potential for rapid overwhelm and compromise. **Despite some innovative measures such as teleservices and helplines, limited resources, including financial constraints and the absence of funding for training, hinder the widespread adoption of these tools in lower-resource settings.** The survey also highlights the underutilization of task sharing through capacity building, possibly due to insufficient funds for training and personnel allowances. The global advocacy for mental health inclusion in COVID-19 responses has led to better integration into plans, but a notable gap persists in the allocation of financial and human resources for mental health in emergency response, posing a significant challenge to service continuity. The importance of integrating mental health and psychosocial support (MHPSS) not only in emergencies but also in preparedness plans is underscored, as evidenced by WHO's interim guidance. While many countries are implementing WHO-recommended strategies to mitigate disruptions, the survey calls for more information to identify effective approaches in different settings and phases of the pandemic. It emphasizes the need for accurate and timely data to inform decisions about adaptations to service delivery, given the likely fluctuations in the pandemic over the coming months. Overall, the survey underscores the urgent need for sustained attention, resources, and coordinated efforts to address the mental health challenges exacerbated by the ongoing pandemic in sub-Saharan Africa.	Focal points from the ministry of health were interviewed in countries which accepted the invitation

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
18	Ngamije & Yadufashije (2020)	Case report	Rwanda	The COVID-19 pandemic has significantly impacted mental health services, particularly during the commemoration week of the 1994 genocide against Tutsi. The lockdown measures, while crucial for controlling the virus, have restricted access to psychosocial support and treatment, creating barriers for vulnerable groups, such as elderly genocide survivors in rural areas. **The prevalence of mental health disorders, including depression and PTSD, among genocide survivors has been exacerbated during this period, marked by the remembrance of past tragedies.** The existing mental health care system faces challenges in adapting to the pandemic's demands, and the absence of national guidelines for public health crises affecting genocide survivors further compounds the issues. The recommendations, such as phone-call counseling and social support, underscore the urgent need for tailored interventions to address the unique mental health challenges exacerbated by the intersection of the COVID-19 pandemic and the commemoration week in Rwanda.	Survivors of the 1994 Genocide Against the Tutsi in Rwanda
19	Ngamaba et al. (2022)	A cross-sectional survey	DRC	**The average quality of life among the participants was reported as 3.3 on a scale of 1 to 7, indicating a notable impact of the pandemic on their overall well-being.** Depression and anxiety scores were relatively high, with a mean PHQ-9 score of 9.1 and a GAD-7 score of 8.5. **The study highlights a negative association between living alone and quality of life, emphasizing the detrimental impact of social isolation during the pandemic.** Additionally, individuals reporting a decline in mental health due to COVID-19 exhibited lower quality of life. The prevalence of anxiety and depression underscores the psychological toll of the pandemic on those undergoing mental health treatment in Kinshasa. These findings underscore the urgent need for targeted psychosocial interventions to address the mental health challenges exacerbated by the pandemic in this population.	Adults over age of 18 from Kinshasa municipalities of whom 58% were male
20	Ahmed et al. (2020)	Retrospective study	Kenya and Nigeria	Before the pandemic, stakeholders reported limited availability of mental health services in Kenya and Nigeria, with traditional and spiritual healers being the main providers. However, during COVID-19 lockdowns, the study reveals a reduction in access to mental health services in all sites, exacerbating existing challenges. Fear of infection, economic hardship, and disruptions in healthcare services contributed to residents' reluctance to seek mental health treatment. **Increased costs of healthcare, reduced household income, and limited availability of basic needs further intensified the distress, leaving individuals struggling to afford both mental health and general healthcare services.** The findings underscore the urgent need for clear communication, remote consulting options, and enhanced mental health support to mitigate the adverse effects of the pandemic on individuals in mental health treatment in these vulnerable communities.	Different stakeholders involved in mental health care
21	Aksunger et al. (2023)	A prospective cohort study	Democratic Republic of the Congo, Kenya, Nigeria, Rwanda, and Sierra Leone	A statistically significant association between the onset of the pandemic and worsened mental health was reported, particularly during the early months of stringent COVID-19 mitigation measures. While there are indications of a partial recovery over the longer term, aggregate mental health remains below pre-pandemic levels. The study underscores the importance of **considering seasonal variations in mental health outcomes, particularly tied to agricultural**	Individuals with mean age of 38.01 years, 64% female

Table 2 (*continued*)

S/N	First author and year	Article type	Country	Impact of COVID-19 on mental health services delivery reported	Demography of patients (if any)
				cycles in low-income settings. The findings emphasize the need for policy interventions in these countries, with a recommendation for innovative solutions like task-sharing in mental healthcare due to deficiencies in mental health resources.	
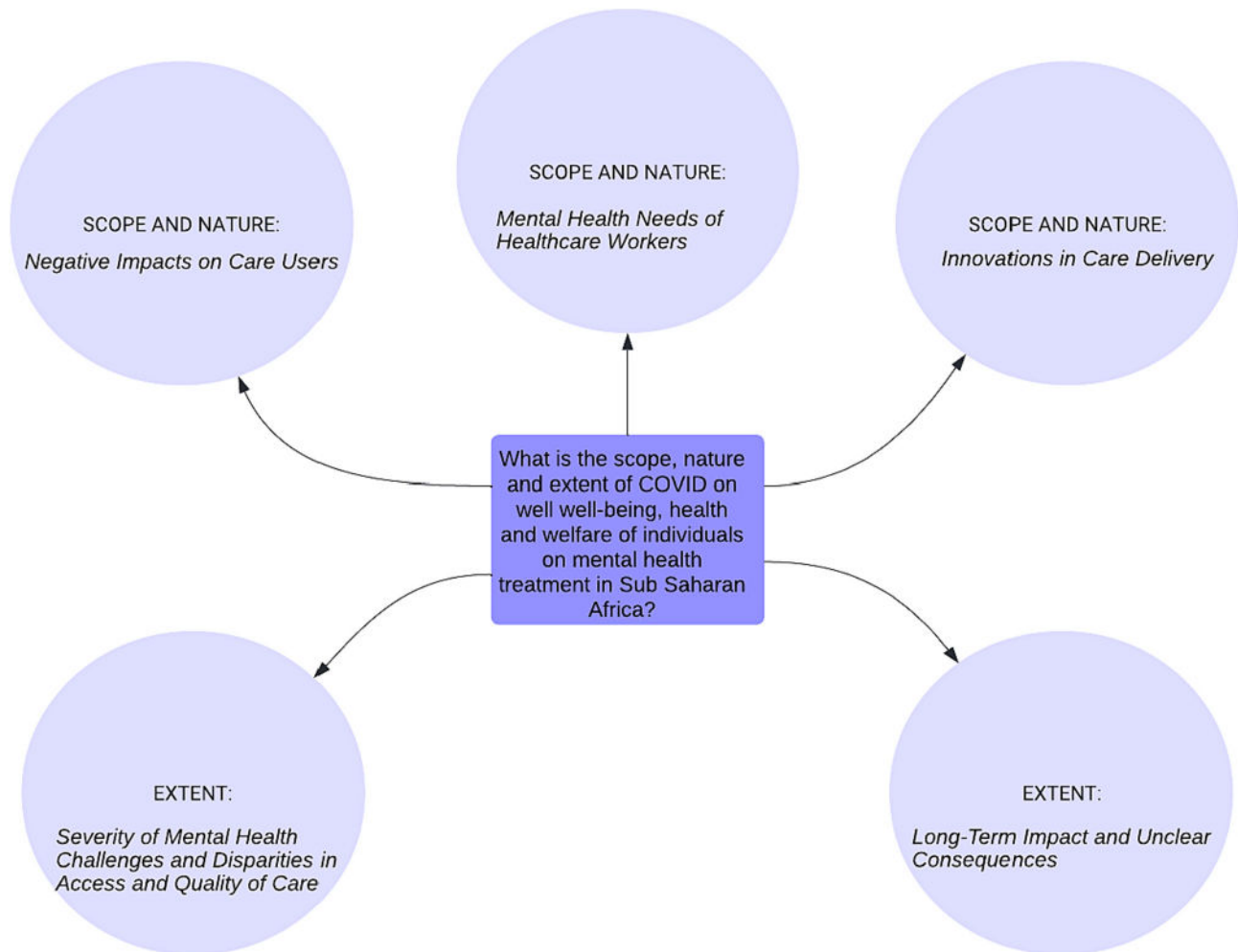
Fig. 1. Themes emerging on the scope, nature and extent of COVID-19 on well-being, health and welfare of individuals on mental health treatment in SS Africa.

Several articles reported on negative impacts on care recipients. Firstly, financial and social vulnerability was reported. Authors reported economic decline, food insecurity, and social isolation leading to increased vulnerability to mental illness [1,9,13–18,25,29]. Secondly, accessibility issues were also reported. Difficulty accessing both mental and physical healthcare due to transportation limitations, healthcare facility closures, and lack of resources [1,13,14,16–18,23,26,27,30,31]. Vulnerability of marginalized groups like the homeless [23], adolescents [14] and those with substance use disorders [27] was heightened due to service disruptions and stigma. Thirdly, articles reported reduced service provision. Decreased admissions to psychiatric hospitals, reduction in outpatient appointments, and closure of therapeutic services were reported [9,13,15–18,23,26,30]. More specifically, interruption of therapeutic services due to the closure of inpatient wards, and outpatient programs, and reduced staff availability due to redeployment was cited [9,13,15–18,23].

Sub-theme 2: Mental Health Needs of Healthcare Workers:
A drastic rise in mental health needs among healthcare workers due to increased workload, exposure to COVID-19, and limited support was reported [1,24,25]. Other studies also reported on some coping mechanisms employed by different groups of healthcare workers. Informal support networks and group check-ins were implemented to address HCW mental health needs [16,29].

Sub-theme 3: Innovations in Care Delivery:
Several innovations were reported in care delivery including hybrid consultations. Implementing telephone and face-to-face consultations for chronic patients was reported [9,13,16,23]. Enhancing accessibility, expanding access to essential medications and introducing virtual patient-family liaisons were also reported [1,25,29]. These innovations also allowed for continued training and education of healthcare workers on multiple concepts including mental health awareness, self-care, managing stress, and providing psychosocial support [13,25,30].

Theme 2: Extent

This theme focuses on the broader impact of the COVID-19 pandemic on mental health services and the mental health of individuals receiving treatment in Sub-Saharan Africa.

Sub-theme 1: Severity of Mental Health Challenges and Disparities in Access and Quality of Care.

The prevalence of depression, anxiety, PTSD, and other disorders has increased significantly, with individuals receiving treatment reporting increased anxiety, economic hardship, and disruptions to daily routines [13–15]. These challenges are compounded by pre-existing disparities in access to mental health care, with limited resources, stigma, and geographic barriers hindering help-seeking behaviour [17,19].

Sub-theme 2: Long-Term Impact and Unclear Consequences.

The long-term consequences of the pandemic on mental health in Sub-Saharan Africa remain unclear, but studies suggest a potentially lasting negative impact. Untreated mental disorders can have severe consequences, and the strain on mental health services raises concerns about treatment continuity and relapse rates [9,16]. Moreover, the psychosocial impact of the pandemic, including social isolation, economic hardship, and uncertainty, may have long-term effects on individuals' mental well-being and societal functioning [1,20].

The mental health challenges faced by individuals receiving treatment in Sub-Saharan Africa during the pandemic are not isolated. They have the potential to ripple outwards, impacting healthcare needs, social cohesion, and economic development. Studies have shown that untreated mental health disorders can lead to increased healthcare utilization for physical ailments, substance abuse, and violence [25]. Furthermore, the pandemic has exacerbated existing social inequalities, which can contribute to mental health problems and create a vicious cycle [1].

3.2. Review question 2

Twenty studies [13,15,22,26,27,32–46] documented lessons and best practices for providing mental health services in the context of lockdown restrictions (Table 3). Despite the challenges, the COVID-19 pandemic also highlighted the resilience of individuals and communities in SSA and yielded valuable lessons for supporting mental health patients during future crises. Four themes were generated from the data. More details are presented in Fig. 2.

3.2.1. Themes 1 and 2

The COVID-19 pandemic undoubtedly impacted mental wellbeing, causing a surge in anxiety, depression, insomnia, and stress [36]. Existing mental health services, already strained and inadequate, faltered under the pandemic's pressure, leaving vulnerable groups like adolescents and pregnant women grappling with a double burden of disease and disrupted care [22,39]. Pre-existing mental health conditions further compounded the challenges. Individuals with HIV, for instance, faced additional burdens due to social stigma and disruptions in access to treatment [34]. Healthcare workers, battling burnout and increased workload, were themselves susceptible to mental health issues, highlighting the need for targeted support [35].

Lockdown measures and resource constraints significantly disrupted mental health services, particularly in remote areas and for marginalized groups [22]. Access to inpatient and outpatient care dwindled, disproportionately impacting women, younger adults, and urban residents [22]. This created a dangerous gap in care, leaving many with unmet mental health needs.

Recognizing the importance of social support and cultural context, communities emerged as beacons of hope. Collaborations between healthcare providers and community members fostered culturally sensitive interventions like peer support groups and home-based care, bringing vital services closer to those in need [32]. Technology and media played a crucial role in bridging the gap. Telehealth platforms, mobile apps, and online resources expanded access to care, particularly

in remote areas [26]. Mass media campaigns, utilizing radio, television, and social media, disseminated accurate information about mental health and dispelled harmful myths, encouraging help-seeking behaviour [32].

Specific interventions addressed the unique needs of vulnerable populations. Pregnant women facing food insecurity and domestic violence received integrated support encompassing both clinical and social aspects of their mental health [39]. Toll-free helplines catered to the specific needs of healthcare workers struggling with burnout [32]. Preserving and nurturing social support systems emerged as critical protective factors. Family bonds, traditional healing practices, and community resilience acted as buffers against the psychological onslaught of the pandemic [32].

Several key lessons learned were reported that can guide the development of a more robust and accessible mental health care system in the region. Firstly, developing culturally appropriate and locally relevant mental health interventions is crucial for their effectiveness and acceptability [13]. Secondly, equipping healthcare workers and community volunteers with the skills and knowledge to address mental health concerns is essential [13]. Thirdly, recognizing and addressing the social determinants of mental health, such as poverty and food insecurity, through economic empowerment and social protection programs can indirectly improve mental well-being [42]. Finally, nurturing individual and community resilience through healthy coping mechanisms, positive family relationships, and strong social support networks is essential for weathering future challenges [41].

3.2.2. Themes 3 and 4

Semo and Frissa [32] and WHO [26] highlight the efficacy of virtual platforms in bridging access gaps, particularly in rural areas facing limited healthcare infrastructure. Mobile apps, brimming with self-help tools and crisis support mechanisms, empowered individuals to take control of their mental well-being, as noted by Anaduaka and Oladosu [44]. Online platforms became information hubs, disseminating credible resources and combating stigma [41]. However, this digital revolution was not without its limitations. The persistent digital divide as shown by Okumu et al. [34] and Jaguga and Kwobah [15] indicate, is particularly significant for vulnerable groups like adolescents and those with pre-existing mental health conditions.

The included studies showed that strengthening the existing mental health service infrastructure remains paramount. Studies by Molebatsi et al. [13] and Assefa et al. [35] emphasize the critical need for increased investment in essential resources, such as trained personnel and well-equipped facilities. Building the capacity of healthcare workers, and equipping them with the knowledge and skills to address mental health concerns as advocated by Okumu et al. [34] and WHO [27], is vital in ensuring comprehensive care within primary healthcare settings. This integration, as Wettstein et al. [22] suggest, reduces stigma and creates a more accessible entry point for those seeking help.

Langsi et al. [33] and Álvarez-Iglesias et al. [42] highlight that understanding the long-term mental health impacts on Sub-Saharan Africa necessitates robust research and data collection. Further, continuous monitoring of mental health needs and healthcare access, as advocated by WHO [26], acts as an early warning system, guiding the allocation of resources and ensuring targeted interventions where they are needed most.

Finally, the included articles also showed that building resilient health systems requires investing in mental health infrastructure, from facilities to personnel. Equipping healthcare workers with the tools and knowledge to address mental health concerns ensures a readily available safety net. Integrating mental health services into primary care, as advocated by Molebatsi et al. [13], creates a seamless web of support, reducing stigma and increasing accessibility. And finally, fostering intersectoral collaboration, bringing together governments, NGOs, communities, and technology providers, as emphasized by Jaguga and Kwobah [15], ensures a collective effort that transcends individual

Table 3

Characteristics of included studies on lessons learnt and best practices.

S/N	Author and year	Article type	Country	Lessons reported	Best practices reported
1	Molebatsi et al. (2021)	Review	Botswana, Cameroon, Ethiopia, Kenya, South Africa, Sierra Leone, Tanzania, Uganda, Zambia, and Zimbabwe.	Mental health and psychosocial support (MHPSS) guidelines in Sub-Saharan Africa are inadequate to meet the current and future mental health needs of the population during the COVID-19 pandemic.	Developing context-specific and culturally appropriate MHPSS interventions; strengthening the capacity of health workers and community volunteers; integrating MHPSS into primary health care and emergency response; collaborating with stakeholders and sectors; conducting research and evaluation
2	Semo and Frissa (2020)	Commentary	Ethiopia, United Kingdom	N/A	During the COVID-19 pandemic in sub-Saharan Africa, implementing virtual mental health services and utilizing social media for mental health education and resources are essential. These methods can reach a broader population, reduce stigma, and improve communication. Preserving social and cultural resilience factors, like family support and traditional healing practices, is crucial for mental well-being. Utilizing mass media to spread accurate information and training community health workers for mental health services in remote areas can bridge gaps in care. Toll-free mental health helplines can cater to specific needs like burnout in healthcare workers. Lastly, integrating mental health services into pandemic responses nationally ensures a comprehensive approach to address the mental health impact of COVID-19.
3	Langsi et al. (2021)	Cross-sectional study	Cameroon, Nigeria, South Africa	COVID-19 pandemic and the lockdown measures have a significant impact on the mental and emotional health of people, especially in Africa, where there are many challenges and inequalities. Therefore, we need to be aware of the mental health issues that may arise during this crisis, and seek help if needed. We also need to support each other and practice healthy coping strategies, such as staying connected, exercising, meditating, and learning new skills. Finally, we need to advocate for public health interventions that can address the mental health needs of the population, especially the vulnerable groups, and prevent further harm.	N/A
4	Okumu et al. (2021)	Commentary	Uganda	Adolescents living with HIV (ALHIV) in sub-Saharan Africa face multiple challenges that affect their mental health, especially during and after the COVID-19 pandemic	Economic empowerment of ALHIV and their households, such as providing cash transfers, food vouchers, or income-generating activities; training, mentoring, and supervising community members as lay mental health services providers, such as peer supporters, counsellors, or psychosocial workers; and mental health literacy programming to increase mental health knowledge, reduce stigma, and improve service use among ALHIV, such as using school-based or clinic-based interventions.
5	Assefa et al. (2021)	Phone survey	Ethiopia, Burkina Faso, Nigeria	Despite high levels of knowledge among HCPs in sub-Saharan Africa, there is a need to improve COVID-19 perceptions and compliance with prevention measures as well as address social stigma towards HCPs to better ensure their safety and prepare them to deliver health services.	N/A
6	Wang et al. (2023)	Cross-sectional study	Burkina Faso, Ethiopia, Ghana, Nigeria, and Tanzania	The Self-reported experience of the current impacts of the pandemic on daily activities was associated with a higher prevalence of possible psychological distress, high anxiety level, and high depression level. The article concludes that the COVID-19 pandemic presents continued challenges to adolescents' education and mental health. Multisectoral efforts are needed to ensure that adolescents in sub-Saharan Africa do not fall further behind due to the pandemic.	N/A
7	Elugbadebo and Baiyewu (2022)	Case series	Nigeria	Even though the anxiety levels did not indicate a mental disorder, younger caregivers who had more anxiety could benefit from getting more help. These caregivers may feel too stressed because they have to look after their older relatives as well as other duties.	N/A
8	Baiyewu et al. (2020)	Commentary	Nigeria	COVID-19 has exacerbated the mental health challenges faced by older adults in Nigeria, who	Enhancing mental health support involved offering psychosocial counseling via phone calls, radio, or

Table 3 (*continued*)

S/N	Author and year	Article type	Country	Lessons reported	Best practices reported
				already experience psychological distress and social isolation due to stigma, discrimination, and neglect. The country's mental health system is inadequate and inaccessible for this vulnerable population, leaving them without proper care and support. Therefore, there is an urgent need for more research, advocacy, and intervention to improve the mental health and well-being of older adults in Nigeria.	television programs while also bolstering the capabilities of primary healthcare workers to recognize and address mental health concerns in older adults.
9	Abrahams et al. (2021)	Cross-sectional study	South Africa	Pregnant women in Cape Town, who faced increased challenges such as food insecurity and domestic violence. The authors found that these factors increased the risk of common mental disorders (CMDs) such as depression and anxiety among the women, and highlighted the need for integrated interventions that address both the social and the clinical aspects of mental health care for perinatal women in low-resource settings.	N/A
10	Wettstein et al. (2022)	Interrupted time-series analysis	South Africa	The lockdown in South Africa significantly disrupted mental health care, notably affecting inpatient admissions and outpatient consultations for mental disorders and alcohol abuse. This disruption varied based on gender, age, and region, with women, younger adults, and urban residents experiencing more pronounced effects. As a result, there was an increase in unmet mental health care needs. The study recommends prioritizing mental health care within the COVID-19 response and exploring alternative service delivery methods like telemedicine to address these challenges.	N/A
11	Haag et al. (2022)	Cross-sectional study	South Africa	The pandemic exacerbated depression and anxiety symptoms among South African youth, notably affecting those facing socio-economic deprivation and negative experiences. Higher baseline symptoms correlated with smaller increases, while positive experiences were linked to lower mental health impacts. Authors emphasize addressing structural well-being factors and providing mental health support for vulnerable youth as crucial for recovery from COVID-19 and future crisis readiness	N/A
12	Sharma et al. (2021)	Report	Global	The COVID-19 lockdowns significantly altered the lives of children and adolescents, causing increased time spent at home and in online learning, leading to heightened stress, anxiety, depressive symptoms, substance use, and behavioral issues. Factors such as demographics and relationships influenced mental health outcomes. However, some exhibited resilience, coping positively through digital connections, increased family time, and reduced academic stress.	Supporting children comprehensively involves providing psychosocial aid to vulnerable groups, promoting positive parenting, managing stress, and addressing emotional needs. Ensuring uninterrupted education requires adapting online platforms, curricula, and aiding teachers and students.
13	Álvarez-Iglesias et al. (2021)	Commentary	South Africa	The article underscores the heightened vulnerability of youth to mental health issues like distress, depression, anxiety, and suicidal thoughts, exacerbated by disrupted mental health services during lockdowns. Authors advocate for integrating mental health support into social protection programs, particularly the Child Support Grant, emphasizing the need to target vulnerable groups and assess both mental health and economic outcomes. They stress the importance of offering access to psychological therapies and soft skills. Ultimately, the article highlights that fortifying social protection initiatives with mental health components can enhance the well-being and resilience of South African youth, aiding in the recovery from the COVID-19 crisis.	Implementing cash transfers and food aid for low-income individuals addresses poverty and food insecurity, reducing risk factors for mental health issues. Extending child support grants benefits children, caregivers, and informal workers, while providing tax incentives and payment deferrals alleviates economic stress during the pandemic
14	Falgas-Bague et al. (2023)	Policy and practice review	Zambia	The study in rural Zambia reveals a 22.5% pre-pandemic maternal distress, rising marginally during COVID-19. Vulnerability is higher for younger, less educated mothers with fewer children in certain provinces. Urgent, tailored interventions are crucial for at-risk demographics. Further data is needed to understand pandemic impacts on child development, emphasizing community-based approaches for maternal and child health protection.	N/A

Table 3 (*continued*)

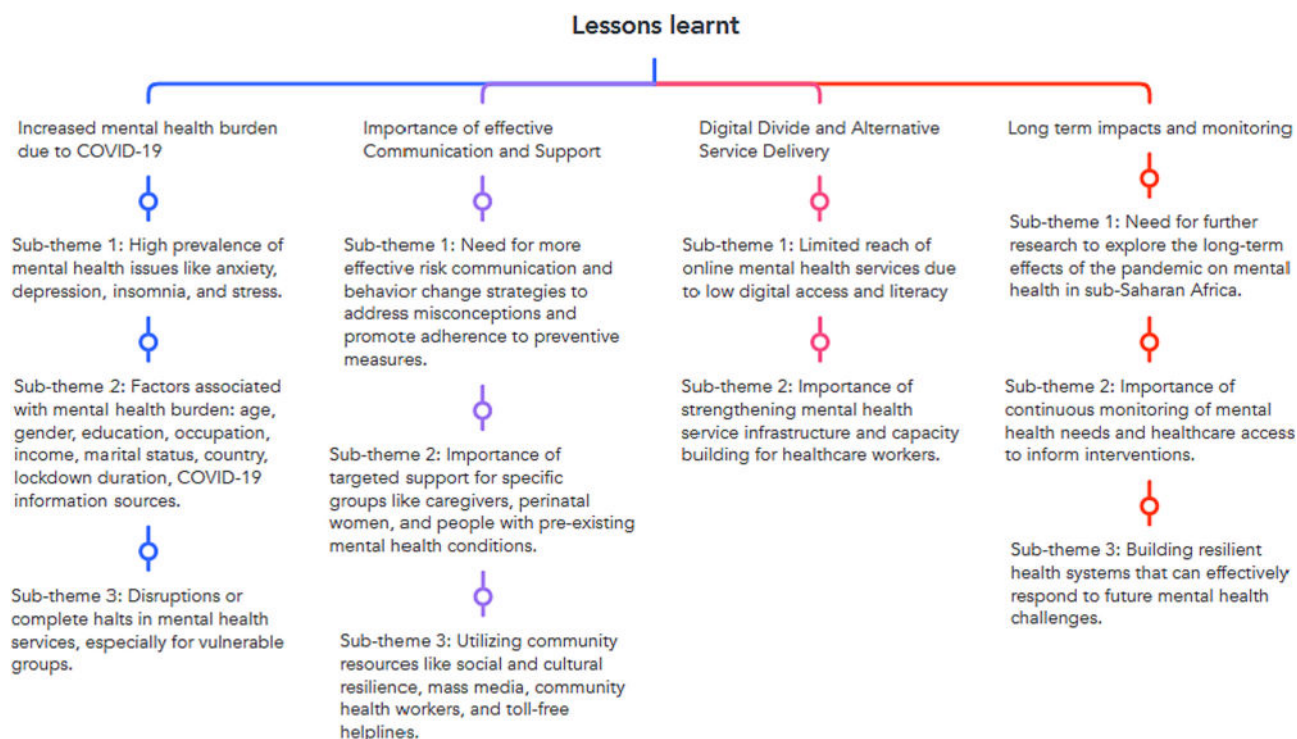| S/N	Author and year	Article type	Country	Lessons reported	Best practices reported
15	Anaduaka and Oladosu (2023)	Empirical study	Sub-Saharan Africa	School closures may have increased negative emotions and distress among people, especially children and parents. However, loneliness, sadness, and suicide did not show significant changes, possibly due to the cultural and contextual barriers to mental health in Sub-Saharan Africa. The increase in the RSVs of sleep, exercise, and prayer indicates that the school closures may have also prompted some positive coping strategies and behaviors that could enhance well-being and resilience during the crisis.	N/A
16	WHO (2022)	Scientific brief	Global	The COVID-19 pandemic has worsened the mental health situation of many people, especially females and young adults, who have higher rates of mental health problems and suicidal behaviors; factors associated with mental health problems were COVID-19 infection, lockdown measures, social isolation, and economic hardship. Moreover, people with pre-existing mental disorders are more vulnerable to COVID-19 infection, severe illness and death. The pandemic has also disrupted the delivery and access of mental health services, leaving many people without adequate care and support.	Using digital technologies, mental health care providers were able to reduce the impact of the pandemic on their services. They offered consultations, therapy and follow-up through phone calls or online platforms and apps. Moreover, they allocated staff to assist those at risk of developing mental disorders by creating online psychological support programmes and improving community care for health care workers, bereaved families and elderly people, sometimes working with government and non-government organizations.
17	WHO (2020)	Rapid assessment	African Region	COVID-19 severely disrupted mental health services worldwide, particularly in low- and middle-income countries, affecting outpatient, community, school, and workplace services due to infection control measures and funding cuts. Recommendations include integrating MHPSS in COVID-19 plans, establishing multisectoral platforms, innovating remote services, supporting frontline workers, and monitoring the pandemic's impact on mental health services and policies	N/A
18	Jaguga and Kwobah (2020)	Review	Kenya	There is no formal mental health response plan in Kenya and there is an unmet need for psychological first aid in the community.	The authors propose four key strategies for strengthening the mental health response in Kenya: (1) preparation of a formal mental health response plan specific to the COVID-19 pandemic with allocation of funding for the response (2) training of community health workers and community health volunteers on psychological first aid to enable access to support for those in need during the pandemic (3) scaling up of mobile health to increase access to care (4) conducting systematic and continuous text message surveys on the mental health impact of the COVID-19 pandemic in order to inform decision-making.
19	Kamulegeya et al. (2020)	Supplement article	Uganda	The COVID-19 pandemic affected accessibility to medical services in Uganda, where the healthcare system is not equipped to handle most healthcare needs of the populace outside hospital premises. This gap led to the prominence and unprecedented rise in the use of digital health technologies to deliver health information and services at a distance (telehealth) during the COVID-19 outbreak.	The authors highlight the role of digital health technologies such as tele-consultation, tele-psychiatry, call centers and mobile phone health information dissemination in maintaining the continuity of essential health services across all levels of the health system
20	Adepoju (2020)	News	South Africa, Kenya, Nigeria and Zambia	The article reports that the COVID-19 pandemic has increased the demand and awareness for mental health services in Africa, and that technology-based solutions can provide access and support to people with mental health needs	The article underscores the potential of mobile technology and internet accessibility to broaden the scope of telemedicine services for mental health in Africa, highlighting the necessity of adapting these services to local contexts, cultures, and user needs. It emphasizes innovation and collaboration as crucial factors in developing and implementing telemedicine solutions. Moreover, the article features various telemedicine platforms tailored for mental health in Africa, such as Wazi, facilitating connections to licensed therapists via chat or video calls; PsyndUp, an online directory and booking service for mental health professionals in Nigeria; MindIT, a Ghanaian mobile app offering self-help tools and peer support; the MEGA project focusing on depression screening and treatment in Kenya and South Africa; and She Writes Woman, a Nigerian social enterprise providing helplines, support groups, and online resources for women managing mental health issues.

Fig. 2. Lessons learnt and best practices for providing mental health services in the context of COVID-19 lockdown restrictions.

limitations.

3.2.3. Best practices

Four themes emerged related to best practices for supporting mental health patients in SSA during the COVID-19 lockdown. Firstly, the authors highlighted the importance of addressing vulnerability and strengthening resources. For instance, Okumu et al. shared best practices for specific groups with tailored interventions, like family economic empowerment for adolescents living with HIV (ALHIV). To bolster mental health during COVID-19, authors perceived empowering ALHIV families economically, training local community members as lay mental health providers, and implementing literacy programs in schools and clinics to combat stigma and encourage help-seeking as best practices [34]. In South Africa, authors underscored the need to prioritize interventions for vulnerable youth identified through risk analysis, while evaluating program impact on both mental health and economic factors to optimize support and build resilience through targeted skills training and mental health interventions [42].

Secondly, the authors highlighted the importance of leveraging technology and innovation. This included developing and implementing robust telemedicine policies and frameworks integrating virtual healthcare training into medical curricula and supporting research and development [47]. Utilizing digital platforms for psychological interventions and public health messaging was also recommended [48].

Thirdly, the authors highlighted the importance of community engagement and resilience building. Recognizing the critical role of social support in addressing mental health challenges, communities became important. Studies by Semo and Frissa [32] and Abrahams et al. [39] highlight the effectiveness of collaborative efforts between healthcare providers and community members. Initiatives like peer support groups and home-based care fostered culturally sensitive interventions and brought vital services closer to those in need [32]. This resonates with the findings of Okumu et al. [34], who advocate for training and utilizing community health workers for mental health support, particularly in remote areas.

Promoting self-reliance and local solutions emerged as another

crucial aspect of building resilience. Studies by Okumu et al. [34] and Langsi et al. [33] emphasize the importance of economic empowerment for vulnerable groups like adolescents living with HIV and those facing food insecurity. Providing cash transfers, income-generating activities, and mental health literacy programs can equip individuals with the tools to navigate challenging circumstances and foster a sense of control over their well-being.

Social and cultural factors play a significant role in mental health resilience. Studies by Semo and Frissa [32] and Elugbadebo and Baiyewu [37] highlight the importance of preserving family support and traditional healing practices. These social and cultural anchors provide a sense of belonging and continuity, acting as buffers against the psychological onslaught of the pandemic. Adapting and optimizing services was also reported as an important best practice [15,22,35]. This includes prioritizing mental health care within pandemic responses and exploring alternative service delivery methods like telemedicine and toll-free helplines.

Building resilient mental health systems requires a long-term commitment. Studies by Molebatsi et al. [13] and WHO [26] emphasize the need for increased investment in mental health infrastructure, including training healthcare workers, developing context-specific interventions, and strengthening data collection and research. Continuous monitoring of mental health needs and service access allows for targeted interventions and ensures resources are directed where they are most needed.

3.3. Review question 3

The four selected countries all had policy and strategy documents for mental health service delivery.

3.3.1. General guidance on the provision of mental health services
Nigeria:

Documents retrieved for Nigeria [49,50] offer a comprehensive framework for strengthening mental health services in Nigeria, with a focus on community-based care, and accessibility. The National Mental

Health Policy and Strategic Plan 2015–2020 [49]: This document outlines the revised National Mental Health Policy, including specific strategies for service delivery, resource allocation, and capacity building. The plan emphasizes the integration of mental health into primary healthcare services and advocates for the establishment of mental health units in general hospitals. Further, it calls for the training of healthcare workers to provide mental health services and stresses community-based mental health services and the reduction of stigma. A review of mental health legislation in Nigeria [50] highlights the need for comprehensive mental health legislation. It advocates for the protection of the rights of individuals with mental health conditions and emphasizes the integration of mental health services into general healthcare.

Rwanda:

Rwanda's National Mental Health Policy [51] outlines the Rwandan approach to mental health, emphasizing community-based care, trauma-informed interventions, and integration with primary healthcare. The policy provides guidelines for the organization and delivery of mental health services and advocates for a multidisciplinary approach to mental health service delivery. It also emphasizes the role of community health workers in mental health support.

South Africa:

South Africa's National Mental Health Framework and Strategic Plan [52] emphasizes human rights and the dignity of individuals with mental health conditions and advocates for community-based mental health services. It also highlights the need for mental health awareness and destigmatization. A 2016 South African Mental Health Service Delivery Guidelines review [53] provides guidelines for the organization and delivery of mental health services and emphasizes a person-centred and recovery-oriented approach.

Democratic Republic of Congo:

DRC's National Mental Health Policy [54] prioritizes the integration of mental health into primary healthcare and advocates for the decentralization of mental health services. It also highlights the importance of human resources training in mental health.

3.3.2. Provision of mental health services in public health emergencies or lockdowns

Detailed information on specific policies or strategies addressing mental health services during public health emergencies or lockdowns was not explicitly provided in the reviewed documents for the four countries.

4. Discussion

The COVID-19 pandemic globally had a negative impact on Mental Health in particular anxiety, depression, post-traumatic stress disorder and substance misuse [55–57]. This review evaluated and synthesized available scholarly articles on the impacts of COVID-19 on mental health service provision in SSA. The literature showed the scope and nature of COVID-19 on mental health in SSA. In SSA, the majority of the community is informally employed or has menial jobs. The lockdown period resulted in a substantial reduction in incomes. In the rural setting where the majority of the community are subsistence farmers COVID-19 lockdowns resulted in challenges in securing inputs and selling produce. This left these communities vulnerable to financial and social poverty which was in keeping with the findings in the literature. A prospective cohort study conducted in low and middle-income countries revealed that there was a worsening of mental health problems among communities as a result of the financial impact of the COVID-19 pandemic [30]. The mental health clients and other clients on other medications that required constant refills ran out of medication, particularly during the first lockdown due to supply chain ruptures [58]. This left the patients at risk of relapse [59]. This status was worse for the marginalized people such as those in hard-to-reach areas. A study conducted in South America also revealed that lockdowns in the region affected the delivery of mental health treatment and care [60].

Our review revealed the need for health policy and practice in SSA to be sensitive to the mental health needs of healthcare workers in the context of a pandemic. Especially, noting that these individuals will experience fatigue, burnout, illness and experience the death of their colleagues as the pandemic unfolds. A study conducted in Europe also revealed that healthcare workers experienced work overload due to infection control protocols and absenteeism arising from testing positive for COVID-19 or being a contact [61]. The work overload resulted in more healthcare workers suffering from anxiety, depression, and stress [61]. There is a need for health policies to be updated to have adequate provisions and safeguards to address challenges that mental health clients are most likely to experience during the outbreak of a pandemic.

Misinformation and myths about COVID-19 and other health conditions tend to circulate during pandemics. These may result in mental health clients not taking their treatment regimens and may even result in them not visiting health care facilities for treatment and care. Many studies highlighted the fact that access to accurate information was associated with a lower risk of mental health problems. Since the beginning of the pandemic, rumours or misinformation have emerged in mass and social media platforms. During the COVID-19 outbreak, social media was a "double-edged sword" that both greatly benefits and can seriously harm individual and collective health [62,63]. Efforts must be made to make use of social media to keep mental health clients well informed with current information as a new pandemic such as the last COVID-19 outbreak unfolds. Failure to keep mental health clients will result in fear and despondency. Online resources like self-help meditation, mental health education, information on early signs, and caregiving could be helpful, which should be considered for preventing COVID-19 and associated mental health problems should be easily available. However, several barriers to accessing digital health such as a lack of digital literacy, a shortage of connectivity and electricity, and language barriers will need to addressed for communities in SSA to benefit from digital health [64].

When the health system is overwhelmed by addressing a growing pandemic such as COVID-19 there is a need for African states to mobilize additional social capital and resources available in non-state sectors and ensure that mental health service provision can continue. These non-state actors can help communities to improve their psychosocial well-being, and identify structural inequalities and other factors associated with mental health service provision [65]. Additionally, non-state organizations such as civil society organizations (CSOs) and non-governmental organizations (NGOs) can assist in mental health service provision during pandemics such as COVID-19 as well as make necessary recommendations to address any identified gaps.

Countries in SSA were inadequately prepared to fight COVID-19, which includes the impacts on mental health service provision during the pandemic. Sub-Saharan African countries do not have robust, resilient and effective mental health systems that may ensure a continuum of mental health care, especially during major outbreaks such as COVID-19 [66]. One effective approach to enhance resilience and to make them less fragile is alternative logistics for the supply of medicines especially for remote locations to ensure that mental health supplies do not run out as an epidemic unfolds. Mental health policies should have provisions for contingency supplies of medicines during periods of pandemics.

Several strategies can be used to reduce mental health problems among the general population during a pandemic such as COVID-19. This includes encouraging people to exercise regularly and maintaining a healthy diet [67,68]. To reduce social isolation during lockdowns, people should be encouraged to contact their friends and families regularly by phone or video calls [69]. Governments should also make sure they provide information the pandemic timeously aand continuously update preventative measures to the population to prevent anxiety and stress [70]. To prevent depression and stress related to loss of income, governments should provide some form of financial support to the affected during such pandemics [71]. Since face-to-face mental health problems are usually limited during pandemics such as COVID-19, the

use of telemedicine should be promoted [72].

4.1. Limitations of this review

The search strategy had several limitations, one of which is that only a few databases were used, making it possible that some relevant articles were missed. Another limitation is that only articles published in English were considered, which might have introduced a language bias. Some of the studies included in this review were retrospective studies, making it possible that some of the findings were affected by recall bias. The inclusion of cross-sectional studies also made it difficult to establish if the COVID-19 pandemic preceded the mental health problems.

Despite these challenges, this narrative review provides a comprehensive overview of COVID-19 and mental health services in SSA. Regarding the third research question, while the countries were chosen because of diversity some limitations exist. These four countries are among the most populous in their respective regions, making them representative of a large portion of the region's population. While not exhaustive, these countries offer some diversity within their regions in terms of economic development. They range from low-income (DRC) to upper-middle-income (South Africa). They also offer diversity in terms of public health infrastructure: They vary in their healthcare capacity and resources. However; these four countries do not perfectly represent the entire picture of their respective regions. There is significant diversity within each region, and the experiences of other countries may differ. Focusing on just four countries for research question 3, means we may have missed important regional nuances and challenges.

5. Conclusion

The COVID-19 pandemic has undoubtedly exposed the vulnerabilities of mental health care in SSA. However, the resilience of individuals and communities, coupled with the lessons learned and best practices adopted during the pandemic, offer valuable insights for building a more robust and equitable mental health system. By prioritizing access to care, strengthening healthcare systems, and combating stigma, Sub-Saharan Africa can not only combat the invisible pandemic of mental health but also build a future where mental well-being is valued and supported for all. While the reviewed policies and strategies across Nigeria, Rwanda, South Africa, and the Democratic Republic of Congo prioritize the integration of mental health into primary healthcare and advocate for community-based services, specific guidance on mental health service provision during public health emergencies or lockdowns is generally lacking in these documents. Further attention and specific policies addressing mental health in crises are warranted to enhance the resilience of mental health services during emergencies.

CRediT authorship contribution statement

Tafadzwa Dzinamarira: Writing – original draft, Conceptualization. **Patrick Gad Iradukunda:** Writing – review & editing, Methodology, Investigation, Formal analysis. **Eric Saramba:** Writing – review & editing, Methodology, Formal analysis. **Pierre Gashema:** Writing – review & editing. **Enos Moyo:** Writing – review & editing. **Walter Mangezi:** Writing – review & editing, Supervision. **Godfrey Musuka:** Conceptualization, Writing – review & editing.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.comppsych.2024.152465.

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