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# Challenges in oral health practice in Somalia: a call for regulatory strengthening and inclusion into primary healthcare services

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## Abstract

**Background** Oral diseases remain a significant public health problem worldwide despite being largely preventable. Oral disorders such as dental caries, periodontal diseases, and oral cancers are highly prevalent chronic conditions that negatively impact quality of life. The oral health practice in Somalia has been evolving over the years, we therefore explored the challenges of oral health practice in a security-constrained poorly regulated environment to guide policy development.

**Methods** We conducted a descriptive cross-sectional study among 15 oral health practitioners in Somalia. Using in-depth interviews, we gathered data on challenges working in private dental clinics and governmental institutions. Additionally, we gathered data on gender, age, marital status, profession, country of graduation, current location of practice, and years of clinical experience. Because the participants worked in different cities, we conducted interviews over the phone and recorded them. The data were analyzed via thematic analysis.

**Results** In this study, 9 of the participants were men and the median age was 29 years. Most of the participants (10) were dentists and remaining were dental specialists. The findings on challenges fall under four broad thematic areas: (1) Patient-related challenges; low patient literacy, preference for dental quacks, delay in seeking oral care, and dental phobia. (2) Institutional-related challenges: limited access to basic oral health services, oral health not an integral part of primary health care, and unregulated private dental clinics resulting in unqualified quacks practising as private caregivers. (3) Societal-related challenges, the absence of community-oriented preventive oral health services and low prioritization of oral health. (4) Personal-related challenges: female dentists in this study faced challenges related to the preference of male dentists and the shortage of oral health specialists in the country.

**Conclusion** This study reveals the need for the establishment and strengthening of regulation of oral services and its inclusion into the basic primary service package provided to the populace. It also calls for community enlightenment and more investment in dental health care in Somalia.

**Clinical trial number** Not applicable.

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**Keywords** Challenges, Oral health workforce in Somalia, Dental health system, Dental services

## Background

Globally, 3.5 billion people suffer from oral diseases, mainly untreated dental caries, severe periodontitis, oral cancer and edentulism [1]. Oral diseases are global yet preventable health issues with significant consequences for both health and the economy, particularly in low- and middle-income countries [2]. Despite posing a risk to global health, these diseases are often neglected in healthcare. In many Low-or Middle-Income Countries (LMICs), oral diseases remain largely untreated because treatment costs exceed available resources [3]. In 2019, global oral disease expenditures amounted to US\$ 387 billion across 194 countries, averaging approximately US\$ 50 per person. Low-income countries spend an average of US\$ 0.52 per capita on oral health care, while high-income countries spend an average of US\$ 260 per capita—a staggering five hundred times more [4].

The promotion of oral health and the clinical management of oral diseases require a competent oral health workforce with appropriate skills, knowledge, attitudes, and competencies [2, 5]. Inequalities in the availability of the oral health workforce are also obvious, with only 1.4% of the total number of dentists working in low-income countries, while more than 80% of all dentists worldwide work in high- and middle-income countries [6]. Access to oral healthcare services is not evenly distributed between rural and urban areas, particularly in low-income countries, which is a problem because most dentists operate in urban areas [7]. As a result, rural communities are left with a gap in service delivery [8]. Private practitioners are typically the primary providers of oral health care services in most countries, including Somalia, and few countries have well-established public oral health care services [5, 9–11]. Poor planning by public institutions, as well as the entrepreneurial choices of private practices, leads to a gap between people's oral health needs and the availability, suitability, accessibility, and affordability of services [12]. Consequently, these services may not always align with the actual needs of people and may not be integrated into general primary health care (PHC) models [13]. Collaboration among various oral health care professionals is essential for attaining widespread and comprehensive oral health care that is consistent with the standards of PHC [12].

Somalia, a low-income country with a predominantly young population, faces significant challenges in oral health care, similar to other low- and middle-income countries (LMICs) [5, 14]. Somalia has a population of approximately 18.7 million people, with a significant proportion residing in rural areas [15]. The population is predominantly young, with over 70% under the age of 30,

which is reflective of high birth rates and a low median age [16]. Somalia is classified as a low-income country with a GDP per capita of around \$500 [16]. The majority of the population lives below the poverty line, which limits access to health care, including dental services [15]. The country has fewer than 100 dentists, most concentrated in urban centers, leaving rural populations severely underserved [17].

Somalia's oral health status reflects broader LMIC trends, with high rates of dental caries, periodontal disease, and limited awareness of modern dental practices [18]. Traditional practices like the use of miswak are common, but there's a lack of integration of oral health into primary health care (PHC) models, a challenge seen across many LMICs [19]. The dental workforce shortage and reliance on private practitioners further exacerbate inequalities in access to care [20].

Due to the high proportion of patients with untreated oral diseases, the significant needs and demands for essential oral health care services, the unequal distribution of oral health practitioners, and the lack of functional facilities within the dental care system, most of the population has limited or no access to appropriate oral health care services. In low-income settings such as Somalia, the perspectives of dental professionals providing oral health services are underreported; thus, this study investigated the challenges faced by dentists and proposed recommendations for policy development and strengthening.

## Methods

### Study design and settings

This study employed a qualitative cross-sectional research design to gain insightful understanding of the experiences and perceptions of oral healthcare workers in Somalia. The main focus of the study was to identify the challenges faced while providing dental care in security and resource-constrained settings. The principal researcher conducted the research in Mogadishu, the capital and largest city of Somalia, which has a population of approximately 18.1 million people, with over 2 million residing in Mogadishu. Somalia is known to be Africa's most culturally homogeneous country [15]. The respondents who were interviewed were from different cities, such as Abuwaq, Garoowe, Hergesia, Kismayo, Qardho, and Boroma.

### Sample size and sampling technique

A total of 15 experienced oral health caregivers were interviewed between January and August 2022 out of a total of 20 that were consulted through the Somali Dental

Association platform. Literature have shown that the standard in qualitative research is that it takes 12–13 responses to reach saturation [21]. However, because of the variabilities in the contexts and location of practice of the members of the Somali Dental Association, and the impact location could have on their practice and oral health seeking behaviour of the residents, we planned to interview 20 participants as a representative. Participants for the study were selected through purposive sampling and were recruited from the Somali Dental Association. Only the participants who agreed to participate in the study were included. The participants were a diverse group from different cities, with varying years of experience, postgraduate qualifications, and specialized areas in the field of oral health. They also graduated from different countries, bringing a range of experiences to the study.

### Data collection

An in-depth interview guide with questions covering different themes was developed for this study. The key informant interview topic guide was developed after extensive review of available literature including works

**Table 1** Socio demographic characteristics of Dental practitioners in Somalia

Gender	Male	9
	Female	6
Marital status	Single	9
	Married	6
Age range		25–37
Median Age		29
Country of graduation	Somalia/Somaliland	5
	Pakistan	5
	Yemen	2
	Sudan	2
	United Kingdom	1
Profession	Dentist	10
	Public health Specialist	2
	Orthodontist	2
	Oral and Maxillofacial Surgeon	1
Years of Experience	< 5 years	5
	≥ 5 years	10
Geographical location	Abudwaq	1
	Garowe	1
	Hargesia	1
	Kismayo	1
	Qardho	1
	Mogadishu	6
	Borama	4
Further qualifications	No additional qualifications	7
	M-Orthodontics	2
	Oral and maxilla-facial surgery	1
	Continuous Dental Education	3
	Master of Public health (MPH)	2

conducted in LMIC and developed countries (Supplementary 1). The guide asked open-ended questions that delved into the challenges the participants encountered in their work. It also asked participants to provide potential solutions that could be implemented to improve the overall quality of oral healthcare in Somalia. Throughout the interviews, the participants shared their valuable insights and experiences working in private dental clinics and public settings. An informed consent form was sent to the selected participants via email, and once they provided their consent, a time and date for the interview were scheduled. To ensure that the research was insightful and accurate, the participants were first asked a range of basic demographic questions, which helped to provide a comprehensive understanding of their background and experience in the field. To ensure that the research accurately captured their responses, the interviews were recorded and transcribed verbatim, ensuring that every detail and nuance of their responses were accurately captured and analyzed.

### Textual analysis

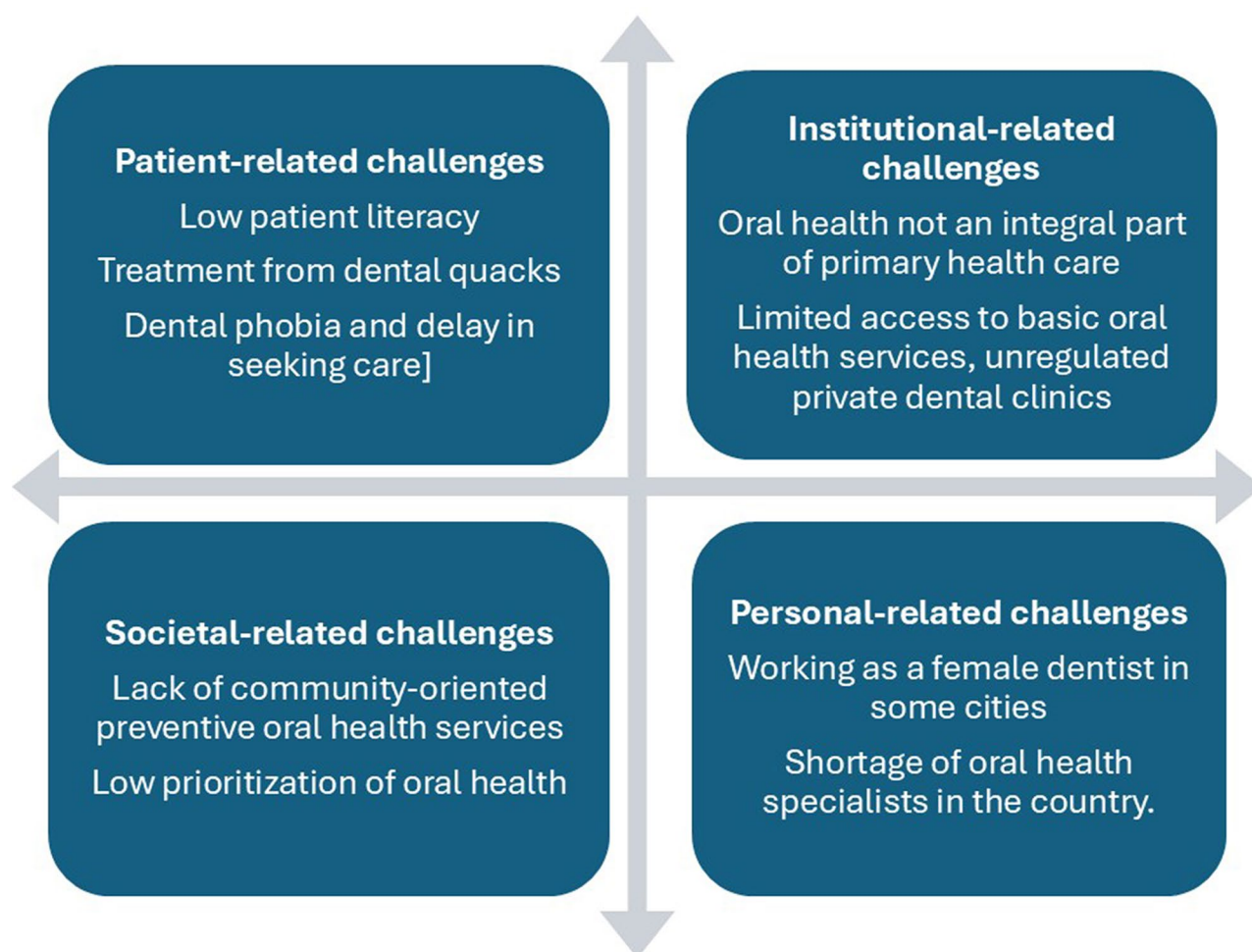
During the interviews, a digital voice recorder was utilized to capture every detail, which was then transcribed verbatim. Following the audio data transcription by a member of the research team with vast experience in qualitative data analysis, using NVivo software version 7, a five-stage framework analysis method was used to analyze the data as published elsewhere [22]. These five stage framework entail listening and relistening of the audio files of the interview, vis a vis the transcribed texts, transformation into similar ideas and codes so as to identify a thematic framework, identification and indexing of codes, summarization and finally mapping and interpretation to define the concepts to explain the outcome [22].

### Results

The majority of respondents were male, and the median age was 29 years (IQR: 27–32). More than two-thirds of the respondents were dentists and had over 5 years of experience (Table 1). For further qualifications, half of the participants had additional qualifications besides dentistry qualifications, including orthodontics, oral and maxillofacial surgery, and public health.

### Challenges fall under four broad thematic areas (Fig. 1)

- (1) Patient-related challenges; low patient literacy, treatment from dental quacks, dental phobia and delay in seeking care.
- (2) Institutional-related challenges; oral health not an integral part of primary health care, limited access to basic oral health services, unregulated private dental clinics resulting in unqualified (dental quacks)



**Fig. 1** Themes of challenges faced by the oral health workforce in Somalia, 2022

to provide unsafe dental treatments and reduced number of dental workforces.

- (3) Societal-related challenges; absence of community-oriented preventive oral health services and low prioritization of oral health.
- (4) Personal-related challenges; Working as a female dentist in some cities was challenging since some patients preferred male dentists and there was a shortage of oral health specialists in the country.

#### Patient-related challenges

Patients who seek dental care face a multitude of challenges that impede their ability to maintain good oral health. Many of them had low literacy levels, making it difficult for them to understand their oral health status and different treatment options. Furthermore, due to a lack of awareness, some patients preferred to delay seeking care until their dental problems became severe. Some patients, especially young patients and children, suffer from dental phobia, which makes it difficult for them to

visit the dentist. Dentists are concerned about the treatments and the fees paid by dental quacks. Patients opt for low-cost extraction from dental quacks but face severe complications due to a lack of sterilization and skills to preserve the tooth structure.

*“The majority of patients did not have a clear understanding of their oral health status. They only sought treatment when they were in extreme pain, which sometimes resulted in the need for complex and expensive procedures. Additionally, many patients were unfamiliar with dental terminology, leading them to ask for recommendations instead of making informed decisions.”*

*“Some patients did not place enough emphasis on oral hygiene education, which is essential for preventing dental decay. Many of them lacked knowledge about the causes of tooth decay, which could have contributed to their dental problems.”*

*Patients with limited knowledge seek treatment when in too much pain and when the tooth is infected or has an abscess. They only prefer tooth extraction instead of treatments such as root canal treatments. These patients delay seeking dental care at the right time and are not aware of the importance of saving the tooth.*

*Children who have had traumatic dental experiences may develop fear of seeking care, leading to dental phobia and early tooth extractions.*

*Most dentists who were interviewed expressed concern about the difference in fees charged by professional dentists and dental quacks. This is why many patients prefer to seek treatment from dental quacks instead of from professional dentists. One of the greatest challenges is that some patients cannot afford the cost of treatment and therefore opt for extraction, which is a lower-cost treatment provided by dental quacks. However, as the quacks are not skilled in root canal treatments, they are unable to save teeth. Additionally, the lack of sterilized instruments increases the risk of complications for patients who receive treatments from quacks, and they subsequently seek appropriate treatment from professional dentists.*

### **Institutional-related challenges**

The institutional challenges that were predominantly addressed by all the dentists were that oral health was not an integral part of primary health care in the country. Another challenge was the lack of access to basic oral health services, resulting in reduced preventive treatments. Moreover, unregulated private dental clinics amplified the number of unqualified dental clinics (dental quacks) in the country, of which the majority provided unsafe dental treatments. The dentist population is very small, resulting in a reduced number of dental workers.

*In many parts of the world, oral health is considered an integral part of primary health care. This means that people have access to basic oral health services, such as regular check-ups and cleanings. However, this is not the case here, where the majority of patients do not have basic oral care and are forced to pay for their dental treatments. This situation creates a large gap for preventive services.*

*"There are unregulated private dental clinics operating, which can result in unqualified/dental quacks," providing unsafe dental treatments. This can lead*

*to serious health consequences for patients. To make matters worse, these patients can have no option but to seek treatment from the quacks due to no regulations from the government.*

*"The absence of licencing for dental health workers, leading to malfunctioning and unskilled practitioners, is further compounded by the lack of regulation in the private sector, resulting in variations in the quality and costs of dental services.*

*"There is a shortage of the oral health workforce in Somalia, which means that even those who do have access to dental care may struggle to find qualified professionals to provide treatment. This shortage can be caused by a variety of factors, including a reduced number of dental institutions, a lack of training programs, a high preference for medical schools and being a medical doctor, and a lack of government investment in oral health care. All of these issues combined can make it difficult for patients to receive the oral health care they need to maintain good overall health.*

*"There are very few oral health workers in Somalia, and most of them don't have the infrastructure, supplies/equipment to provide oral health services in public hospitals."*

### **Societal-related challenges**

The absence of community-oriented preventive oral health services and the lack of dental care programs that are designed to prevent oral health problems within the community are significant challenges. These programs aim to provide early detection and intervention of oral diseases and promote good oral health practices among the community, and a lack of such services can result in a higher incidence of oral health problems, which can lead to more serious health issues if left untreated. Another challenge addressed was the low prioritization of oral health problems.

*"Limited access to dental care in underserved areas can lead to oral health being given less priority. Additionally, some people may not consider oral health as important as other health issues. Absence of health-seeking behaviors and lack of preventive oral health services, including early and regular dental check-ups, and the use of herbal toothbrushes without toothpaste."*

*"Dental care can be expensive, and lack of insurance coverage or financial resources can result in people*



*deprioritizing oral health. Most patients visiting the private clinics complained how they think it is too expensive because they don't value their oral health enough to fix their teeth."*

*"There are no public oral health services, and mainly they are provided in the private sector, and only the people who can afford them access these expensive private sectors."*

*"A lack of understanding about the importance of oral health and its connection to overall health can contribute to it being given less attention. The oral health diseases are enormous, and many people suffer from dental caries who go to the private sector for dental service provision."*

*"With the lack of affordable dental plans available to the public, as well as the challenges of managing a dental practice. Dentists argue that, as a business, dentistry prioritizes profits over patient care, making it difficult to provide truly benevolent healthcare services."*

### Personal-related challenges

Working in a dental clinic as a woman can be challenging due to the preference of most patients for male dentists. Additionally, other challenges addressed were lack of mentors, continued dental education, and institutions for training practices. Furthermore, the scarcity of dental universities exacerbates the shortage of dental professionals and makes it difficult for aspiring dentists to pursue their careers.

*"Challenges in accessing mentors, continued dental education, and training institutions, limiting career advancement and skill development."*

*"Working in a dental clinic as a woman can be challenging due to the preference of most patients for male dentists."*

*There is a significant lack of mentors, institutions for training practices, standardized resources, oral health promotion, and oral education programs. Additionally, there is a shortage of dental institutions, which makes it difficult for aspiring dentists to pursue further specialization."*

### Proposed solutions

**Oral health literacy** To improve oral health literacy, a multifaceted approach is needed. First, community-based

educational programs should be developed to increase awareness about the importance of oral health and preventive measures. This is echoed by one of the participants where he reported alluded that *"I believe some of the proposed solution should be community education, stricter regulation of unqualified dentists, training of the dental health workforce such as dental nurses, and the establishment of dental institutions and training programs."*

These programs could include workshops, seminars, and campaigns targeting schools, community centers, and workplaces. Second, healthcare providers should be trained to effectively communicate oral health information to patients, ensuring that they understand the importance of oral hygiene and regular check-ups. Third, leveraging digital platforms and social media can help disseminate accurate oral health information to a wider audience. Last, collaboration with local leaders and influencers can help promote oral health messages within communities.

### Improving access to oral health services through primary health care facilities (EPHS)

One of the participants opined that *"To overcome limited access to oral services among underserved populations, there should be delivery of essential oral services in all primary health settings. This approach can be fulfilled through essential package of health services so that access to dental services can be achieved equitably"* To address the challenge of limited access to oral health services is to improve the delivery of essential oral health services through primary health care facilities. This approach, which is part of the Essential Package of Health Services (EPHS), involves training and equipping oral healthcare professionals to provide basic and necessary oral health services to underserved and vulnerable populations. Specifically, preventative and basic curative services, such as fluoride treatment, oral health education, dental fillings, and extractions, can be provided. By leveraging the existing infrastructure of primary health care facilities, such as primary mother and child health care services, this strategy aims to increase the availability and accessibility of oral health services, particularly in resource-limited settings where access to specialized oral health care is often challenging. Through this approach, more people can receive the oral health care they need to maintain good oral health and prevent oral diseases.

**Regulations** Adopt policies to regulate the nonprofessionals (quacks) working in the country. *"The Ministry of Health (MOH) should nominate dedicated qualified oral health professionals and make oral health a high political priority. The nominated team should conduct oral health studies to assess the burden of oral health problems in the country and the needs of the community. Based on*

*the assessment findings, the team should develop a policy and strategy to implement the policy. The team should use the findings, policy and strategy and political will from the MOH to advocate and mobilize resources to implement oral health programs”.*

## Discussion

The challenges faced by oral health professionals are multifaceted and pose significant barriers to oral health care. The key findings were lack of awareness among the patients, delay in seeking dental care because of the cost, lack of public oral health services and subsidized treatment. These challenges are further complicated by the absence of licencing for dental health workers, leading to malfunctioning and unskilled practitioners working in the country. In addition, the lack of funding for public dental facilities is causing an increase in the number of quacks providing services at lower cost and leading to complications. These challenges are further compounded by the lack of regulation in the private sector, resulting in variations in the quality and costs of services. Furthermore, the scarcity of dental schools exacerbates the shortage of dental professionals.

**Low oral health literacy of patients** Most patients lack knowledge about the importance of oral health and regular dental checks. They visit the clinic when they are experiencing too much pain; thus, they are asked to remove their teeth. However, oral health education has been shown to be effective in improving the knowledge attitude and practice of oral health and in reducing plaque, bleeding on probing of the gingiva and caries increment [23]. In this way, it is difficult to treat the teeth at early stages. A lack of awareness prevents many patients from seeking treatment, which leads to a high percentage of preventable diseases resulting from the total removal of teeth/teeth. A lack of oral health awareness also leads to low patient literacy, making it difficult for dentists to explain some treatment plans, such as root canal treatment. These findings are consistent with studies conducted in North India where acute lack of oral hygiene awareness and poor knowledge of oral health and its implications were reported among patients [24]. In another scoping review exploring the experiences of refugees regarding access to dental health services in their host countries, the authors reported that lack of knowledge of the host country's dental system contributed significantly to the poor oral health outcome [25]. This lack of knowledge about the oral health system may also be a contributor to poor oral health among Somalis, particularly because a large number of the general population are members of the IDPs who were displaced from their villages, hence they may have poor understanding of the healthcare delivery system [26]. Sometimes the patient prefers removal of teeth

while the teeth can be saved, which can result in early tooth loss, leading to edentulism. The 2020 Somalia demographic health survey revealed high rates of tobacco use (27%) among adult males, along with unhealthy dietary practices and substance abuse, all of which are risk factors for dental issues [27]. Notwithstanding, application of the Anderson's Behavioural model which provides a framework for understanding the factors which influence utilization of oral health services and key health outcomes would be a suitable approach to addressing oral health seeking behaviour [28].

**Cultural beliefs and oral health stigma** In Somalia, there is a notable stigma associated with oral health issues, where conditions such as tooth decay and gum diseases are often observed because of personal failure or poor spiritual hygiene. Such stigma discourages individuals from seeking professional help for oral health problems, leading to a tendency to rely on traditional home remedies or to ignore the issues entirely until they become severe [29]. There are widespread misconceptions in Somalia regarding oral health care, such as the belief that dental treatments are inherently risky or that tooth extraction is the only solution to dental pain. These misconceptions, coupled with a lack of oral health education, deter individuals from seeking preventive and routine dental care, leading to a greater prevalence of dental issues that require more invasive treatments. The challenges associated with delays in seeking care and dental phobia are similar to those identified in a study conducted in the USA, which showed that in Somali cultures, families, rather than dentists, are responsible for oral care. Therefore, when a person has to visit a dentist, it is usually when a decayed tooth has become so painful that it is unbearable. As a result, tooth extraction is the usual outcome of these visits, leading many Somalis to associate dentists with pain and tooth removal [29, 30]. Oral health is linked to an individual's overall health status. Neglecting dental health can lead to complications such as periodontitis, tooth loss, and even systemic infections [31].

**Shortage of oral health workforce** Somalia's healthcare system faces various obstacles, including the healthcare workforce, as a result of the country's instability and violent conflict. Due to continuous conflict, many healthcare personnel have left the country or relocated from rural to safer urban areas, resulting in an unbalanced distribution of workers. A shortage of specialists, such as periodontologists, oral surgeons and prosthodontists, and a lack of dental nurses, dental assistants and dental hygienists were highlighted by the respondents. This challenge is due to the limited number of dental institutions, resulting in a reduced dentist-to-population ratio. A systematic review of oral health workforce in Africa revealed that the

dominant perceived challenge is uneven distribution of the workforce between urban and displaced rural areas [13]. In a related study conducted among dental professionals in Sierra Leone, participants reported that oral health services is lacking due to the large-scale exodus of professionals as a result of the war, lack of a conducive working environment as well as poor remuneration due to widespread corruption [32]. The profound lack of coordination, due to political and safety concerns, limits the outreach and efficiency of both the health services and university systems; additionally, inadequate legislation, regulatory functions, and accreditation systems have adverse effects on health services as well as academic work [33]. In 2017, the country received one of the lowest Universal Healthcare Coverage Index ratings at 22% [34]. Low compensation in the public health sector has led to health workers practicing in both the public and private sectors, making it difficult to retain health workers [35]. Healthcare personnel face a shortage and lack proper training. There is little infrastructure and faculty capacity to expand educational programmes for health professionals. The lack infrastructure have been reported in many studies as an impediment to provision of quality healthcare in humanitarian crisis affected countries including provision of good oral health and hygiene [36, 37]. Following the collapse of the central government, many healthcare education institutes became privately owned. These facilities lack a standardized curriculum and necessary equipment for training health professionals. Regarding dental institutes in Somalia, eight institutes provide dentistry education. Four dental schools are located in North Somalia (Somaliland), three are located in Central Somalia (Mogadishu), and one is located in Puntland. Health professional schools in low-income countries face notable limitations in terms of physical space, equipment, curricula, training materials, faculty, administrative staff, and funding [34]. Low-income countries face significant obstacles, including a severe shortage of dentists and insufficient public health such as water fluoridation and the availability of toothpastes [31].

**Unregulated private sector** Private dental clinics are unregulated and can sometimes pose a risk rather than a solution to the country's health problems [34]. Furthermore, if the dental quack is working on several individuals in a row without properly cleaning his or her tools, there is a chance of spreading bacteria and viruses, especially Human Immunodeficiency Virus HIV and Hepatitis B virus HBV, which is a growing concern in Africa [38]. The private sector is a crucial healthcare player and could be a platform for providing public health services at affordable prices, as occurs in many developing countries. A large number of oral health service providers are concentrated in urban zones, leaving a significant gap in rural health-

care. Currently, there are three public hospitals (Digfer Hospital in Mogadishu, Basoso Hospital in Basoso, and Hargeisa Hospital Group in Hargeisa), and the number of private clinics exceeds 500. In addition to the inadequate numbers of public sector health providers, there are additional challenges of equitable geographical distribution and quality of care. The health workforce shortage in Somalia is characterized by an uneven distribution of health workers, inappropriate skill mixes and gaps in service coverage [39]. In Somalia, the health workforce density is among the lowest in the world. The SDG index threshold is 4.45 physicians, nurses and midwives per 1000 people, Somalia has 0.11 such health workers per 1000 people [40]. Due to the disintegration of the public health sector in the 1990s and the absence of fully functioning public health services, the private sector has been a dominant provider of health services to the Somali population. Through this sector, private hospitals, health clinics, and pharmacies are operated and supported by those with purchasing power to seek basic healthcare services [34]. Public health services are insufficient in many parts of the country, particularly in the southern and central regions, and demand for health services is met mostly by the private sector [41]. According to the SARA, in 2016, there were 3,289 private health facilities in Somalia. Overall, 79% of private facilities are in urban areas, and 20% are in rural areas [42]. On the other hand, no public oral services are available to meet oral health needs, particularly for the most disadvantaged and nomadic population. Most systems are based on the demand for care provided by private dental practitioners, although some high-income countries have organized public oral health systems. In most low- and middle-income countries, the investment in oral health care is low, and resources are primarily allocated to emergency oral care and pain relief [1].

**Public oral services** One of the institutional challenges was the lack of public oral services for the population and the lack of national dental programs. The inclusion of oral health interventions in public health benefit packages is determined by the government health financing scheme, which includes routine and preventive care, essential curative care, advanced curative care, and rehabilitation care, including nonsurgical extractions, root canal treatment, and dental implants [43]. According to health policy and the framework of essential package of health service (EPHS) delivery in Somalia, dental health is one of the ten priority core programs of the EPHS framework, especially at the hospital level and oral hygiene promotion at PHC levels. Although it is one of the core EPHS programs, it has not been funded, and no resources are allocated for the oral health program. Moreover, in terms of private sector facilities, 46% of hospitals and 74% of clinics



are either individually owned or group owned. The mix of services provided at private facilities does not fully cover the interventions contained in the EPHS 2020 [44].

The effective management of the health workforce includes the planning and regulation of the stock of health workers, as well as education, recruitment, employment, performance optimization and retention [45]. The Human Resources for Health Action Framework identifies six main action fields in health workforce management: leadership, finance, policy, education, partnership, and human resources management systems. These fields are applicable to countries at all socioeconomic levels, including those affected by conflict and chronic complex emergencies. Due to their complexity, these fields require long-term strategic vision and commitment. Prioritizing governance functions and mobilizing political commitment is crucial in chronic emergencies and countries with limited governance capacity. Appropriate governance ensures the system's basic functioning, including policy dialog, stock monitoring, and sustainable financing. Renovating mechanisms for executing health workforce policies and reinstating a functional payroll are also essential [45].

The oral health unit has been added to the departments of the Ministry of Health, and the oral health focal person has been nominated, but because of lack of funding, the oral health unit has not functioned or developed any policy to date. According to the 2019 WHO report on the economic impact related to the treatment and prevention of oral diseases in Somalia, about 2.6 million dollars (USD) are spent on dental healthcare in million, with a total of 7.9 million USD productivity losses due to oral diseases [46]. These therefore emphasize the urgent need for public oral health care administrators and decision-makers who have the tools, capacity, and information to assess and monitor health needs, choose intervention strategies, and design policy options appropriate for improving the performance of the oral health system in the country. However, the Oral health unit of the ministry of health and the Somali dental health association developed basic package of oral health services and are developing oral health in-service training curriculum that will be trained on PHC facilities staff including community health service delivery interventions in schools and other workplaces. The UHC roadmap plan for Somalia 2019–2023 emphasizes that all Somalis should receive all essential health services they need without any financial hardships and now there are efforts to develop NCD strategy and action plans for Somalia and oral health interventions will be integrated into the UHC agenda and NCD strategies and action plans for Somalia [47].

### Study limitations

One of the primary limitations of this study was selection bias as study participants were selected on the basis of purposive sampling to capture their perspectives of oral health practice in Somalia. Hence, some key perspectives may have been missed. Secondly, the study only included the perspectives of fifteen oral health providers, which may not be representative of the views of all caregivers in the entire country. Moreover, the study is an explanatory study with a small sample; therefore, it cannot be generalized and as is common with qualitative research, subjectivity could have influenced our results. Despite these limitations, this study addresses the challenges that dentists face while providing dental care and suggests a comprehensive solution.

### Conclusions

In conclusion, the main challenges faced by oral health caregivers in Somalia were primarily patients lacking awareness about the severity of dental problems and patients in most of the private sector being unregulated, leading to unprofessional dental quacks providing harmful services to the community. These challenges demand a multifaceted approach to enhancing oral health care quality and accessibility in Somalia, such as public awareness programs, a regulatory framework for private dental clinics, improved access to care (especially in rural areas), the opening of more dental institutes, collaboration among stakeholders, and monitoring of service quality.

### Further research and recommendation

Financial incentives may be necessary to encourage oral caregivers to work in underserved regions. This study reveals the need for the establishment and strengthening of regulation of dental services and its integration into the basic primary service package provided to the populace. Utilizing the opportunities of UHC roadmap plans for Somalia and the development of national NCD policies including oral health policy, the oral health practice in Somalia can be improved.

### Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12903-024-05221-6>.

Supplementary Material 1

### Author contributions

S.G, A.M.H, C.D.U. and M.D. conceptualized the idea for the research, S.G., A.A. conducted the in-depth interviews, S.G., N.A.M, B.G., and M.A.M participated in the transcription and coding of the transcripts, S.G prepared statistical data and tables. All authors participated in the drafting, revision and final approval of the manuscript.

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## Data availability

The datasets used and/or analysed during the current study are available in the manuscript.

## Declarations

### Ethics approval and consent to participate

Ethical approval was obtained from the Institutional Review Board of the National Institute of Health, Somalia (NIH/IRB/04/MAR/2024). Participation was entirely voluntary, and all study participants provided written informed consent. Throughout the study, we strictly adhered to ethical standards to ensure the privacy and confidentiality of all participants.

### Consent for publication

Not applicable.

### Competing interests

The authors declare no competing interests.

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