

Research Article

Revised Manuscript: Examining the Influence of Patient Performance, Quality, and Conviction on Health Protocols and Medical Regulations in Somali Public Hospitals

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Abstract

Effective management and leadership are vital to the resilience and operational effectiveness of public hospitals, particularly in fragile and resource-limited settings such as Somalia. This study explores how patient performance, healthcare quality, and healthcare professionals' conviction impact the implementation of health protocols and regulations. These three factors interact dynamically, influencing hospital management and regulatory adherence. The research examines the complex interplay between three pivotal factors—patient performance (including engagement, health literacy, and participation), quality of care, and the professional conviction of healthcare workers—and their collective influence on the successful implementation of health protocols and medical regulations. Moving beyond traditional models, the analysis incorporates innovative, contextually grounded strategies designed to enhance patient outcomes, regulatory compliance, and institutional performance. Drawing on established healthcare management principles and informed by a comprehensive review of literature and contextual evidence from the Somali healthcare system, the study identifies key leverage points for strengthening leadership and management practices. Specific attention is given to culturally responsive communication, the strategic use of community health workers, digital health interventions, and participatory approaches that cultivate a sense of ownership and motivation among healthcare professionals. The findings underscore the importance of integrating patient-centered approaches and continuous professional development into the broader regulatory and management frameworks of public hospitals. Furthermore, the paper discusses specific strategies that can enhance patient outcomes, operational efficiency, and regulatory compliance. Furthermore, it highlights the significance of health literacy and patient engagement in improving health outcomes, the quality of care, and professional motivation among healthcare workers. It also suggests a comprehensive approach that integrates cultural sensitivity and innovative solutions like telemedicine to address challenges in resource-limited settings. The study offers practical insights for enhancing healthcare delivery in Somalia and strengthening the leadership framework within the healthcare system. The conclusions call for further implementation research to evaluate the long-term impact of these strategies and emphasize the role of inclusive leadership in fostering a resilient and high-performing public healthcare system capable of withstanding future challenges.

Keywords

Public Hospitals, Somalia, Healthcare Management, Quality of Care, Health Protocols

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1. Introduction

Public hospitals in Somalia operate within a complex and challenging environment, characterized by the lingering effects of protracted conflict, pervasive resource scarcity, and a healthcare infrastructure that has been significantly weakened over decades. This challenging context underscores the critical importance of effective management and visionary leadership, which extend far beyond routine administrative tasks to become essential forces for ensuring the continued accessibility and delivery of essential healthcare services to a vulnerable and often underserved population. In fragile states like Somalia, where the social and political landscape is often volatile, the role of hospital leadership in maintaining stability, coordinating services, and safeguarding the well-being of both patients and staff is paramount.

This article is grounded in the understanding that the successful adoption, consistent application, and sustained implementation of health protocols and medical regulations within these vital institutions are not merely a function of top-down directives or the availability of guidelines. Instead, these processes are profoundly and dynamically influenced by the intricate interplay of three core factors: the active participation and understanding of patients (patient performance), the overall standard and appropriateness of the care provided (quality of care), and the deep-seated belief and commitment of healthcare professionals to the value and necessity of adhering to established guidelines (professional conviction).

This expanded analysis goes beyond a surface-level examination to delve deeper into the underlying mechanisms through which these three factors interact and shape the implementation landscape, exploring innovative approaches that can effectively foster and strengthen each element within the specific realities of the Somali context. The relevance of this article is further amplified by the critical global imperative to strengthen public health systems in fragile states, a context that is acutely and particularly relevant to Somalia's current situation. Understanding the unique and multifaceted challenges inherent in fragile settings, including weak governance structures, limited institutional capacity, and significant logistical hurdles, is fundamental to developing effective and sustainable interventions aimed at improving health service delivery.

This research therefore contributes to the broader understanding of health system dynamics in challenging environments. The UNICEF Somalia Humanitarian Situation Report provides valuable context regarding the challenging environment in Somalia [1]. The ongoing humanitarian situation significantly impacts the operational capacity and resource availability of public hospitals, making effective leadership and management crucial for service delivery amidst adversity.

2. Literature Review: Expanding the Foundations

The existing body of literature on effective hospital management and leadership provides a robust and valuable theoretical framework for understanding the complexities inherent in the organization and delivery of healthcare services. These established principles offer foundational knowledge regarding strategic planning, operational management, human resource development, and financial stewardship within healthcare institutions. However, the direct application of these often Western-centric principles to the unique and challenging context of Somali public hospitals necessitates a careful and nuanced understanding of the specific local realities.

The prevailing conditions in Somalia, including deeply embedded cultural norms, persistent security concerns, ongoing political instability, and severe limitations in financial and material resources, significantly shape the operational landscape and present unique obstacles to the straightforward implementation of standard management practices. This expanded literature review therefore delves deeper into the theoretical underpinnings of patient performance, the multifaceted construct of quality of care, and the critical element of professional conviction, specifically examining how these concepts manifest and interact within resource-constrained and politically sensitive environments.

The review seeks to bridge the gap between general healthcare management theories and the specific practicalities and contextual nuances of the Somali setting, drawing upon a wider range of evidence, including research related to health systems strengthening in fragile states and studies conducted in similar low-income or conflict-affected regions. This approach allows for a more informed and relevant analysis of the factors influencing health protocol implementation in Somali public hospitals. Research by Sheikh, Martineau, & Ncayiyana highlights the need for change in public health leadership and management in low-income countries [2]. Their work underscores the importance of context-specific approaches in leadership development for effective health service delivery in challenging settings.

2.1. Patient Performance: Beyond Compliance to Health Literacy and Engagement

Our understanding of patient performance in the context of healthcare extends beyond the simplistic notion of passive compliance with medical instructions to encompass the broader and more dynamic concepts of health literacy and active engagement in the care process. Patient engagement is increasingly recognized as a crucial determinant of health outcomes and involves patients being actively involved in decisions about their health and healthcare, fostering a sense of partnership with healthcare providers. Walker et al. provide a scoping review of patient engagement in healthcare [8]. Their review highlights the growing evidence base supporting

the positive impact of patient engagement on various health outcomes and healthcare processes. Health literacy, formally defined as the degree to which individuals possess the capacity to obtain, process, and understand fundamental health information and services required to make appropriate health decisions, is a particularly critical factor in the Somali context. This is due to variations in formal education levels across the population and the limited accessibility of reliable and easily understandable health information. Nutbeam discusses the evolving concept of health literacy [9]. Understanding the different facets of health literacy is essential for designing effective health education and communication strategies. Strategies aimed at enhancing patient performance must therefore be tailored to address these specific challenges. Initiatives leveraging culturally sensitive communication approaches, which respect local beliefs and languages, the strategic deployment of community health workers who serve as trusted intermediaries between the healthcare system and communities, and the innovative utilization of mobile technology platforms have the potential to significantly enhance patient understanding of their health conditions, prescribed treatment plans, and the underlying rationale behind hospital protocols and regulations.

Furthermore, actively fostering patient engagement, where patients feel empowered and supported to participate meaningfully in shared decision-making regarding their care, has been shown to lead to improved adherence to treatment protocols and ultimately contribute to better health outcomes. Innovative approaches to promote patient engagement within Somali public hospitals could include: (a) the establishment of patient advisory boards or committees to systematically gather feedback, preferences, and perspectives from the community, thereby integrating the patient voice into service delivery planning and evaluation, (b) the implementation of accessible feedback mechanisms, such as simple mobile phone-based surveys or suggestion boxes located in prominent areas, to capture real-time patient experiences and identify areas for improvement, and (c) the co-creation of culturally relevant and easily understandable educational materials with active input from community members and local leaders to ensure their appropriateness and effectiveness in conveying essential health information in a relatable format. Sibanda & Charumbira discuss the benefits, challenges, importance, and implications of patient engagement in research [11]. Their work underscores the potential for patient involvement to improve the relevance and effectiveness of health research and interventions. Effectively addressing patient performance through these multi-pronged approaches is fundamental to improving the implementation of health protocols and regulations.

ChartSpan provides examples of patient-centered care [13]. Alshahrani et al. discuss patient centered care [12]. Coulter & Ellins explore patient-centeredness [10]. The concept of patient-centeredness is a cornerstone of quality healthcare, emphasizing the importance of individual patient needs and

preferences.

2.2. Quality of Care: Integrating Patient-Centeredness and Contextual Adaptation

The concept of quality of care within Somali public hospitals must be approached with a dual perspective, balancing the adoption of globally recognized best practices and standards with the necessity for careful and informed contextual adaptation. While international benchmarks provide a crucial framework for assessing and improving healthcare quality, their direct implementation must be flexible and highly responsive to the specific realities of the local environment, including severe resource constraints, existing infrastructure limitations, and prevailing cultural factors. The Institute of Medicine (US) Committee on Quality of Health Care in America discusses crossing the quality chasm [3]. Their foundational report highlighted the significant gap between the healthcare we have and the healthcare we could have, calling for a fundamental redesign of the health system. WHO also addresses quality of care in fragile, conflict-affected, and vulnerable settings [7, 33]. These reports emphasize the unique challenges in ensuring quality healthcare in unstable environments and propose strategies for improvement tailored to these contexts. The core dimensions of quality of care – encompassing safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity – remain universally paramount. However, their practical operationalization in the Somali setting demands innovative and tailored approaches. For instance, ensuring timeliness in the delivery of emergency care, a critical aspect of quality, might involve establishing efficient and contextually appropriate triage systems that effectively utilize the limited available resources and personnel.

The strategic deployment of telemedicine for remote consultations with specialists can also significantly improve access to expert medical advice when local expertise is unavailable, thereby enhancing the quality of care in remote areas. Garba et al. provide a perspective review and policy recommendations on the application of telemedicine in Somalia [38]. They argue that telemedicine has the potential to bridge geographical barriers and improve access to specialized care in resource-limited settings. Furthermore, task-shifting certain medical responsibilities to trained mid-level healthcare providers, a strategy successfully implemented in some areas of Somalia for procedures like surgical care, can help optimize the utilization of limited human resources in both emergency and routine care settings. Chu, Ford, & Trelles discuss a model of task shifting for surgical care in Somalia [40]. Task shifting can be a pragmatic approach to expand the reach of essential medical services in areas with shortages of specialized personnel. Enhancing patient-centeredness, another crucial dimension of quality, could involve respectfully incorporating relevant traditional healing practices where appro-

priate and ensuring that care delivery respects local cultural norms and beliefs. Coulter & Ellins explore patient-centeredness [10]. This requires open and respectful communication and potential collaboration between formal healthcare providers and traditional healers, focusing on practices that are safe and beneficial to patients. Moreover, quality improvement initiatives should not solely rely on models developed in high-resource settings but should be rigorously adapted and evaluated within the local context.

This could involve fostering peer-to-peer learning networks among healthcare professionals across different hospitals to share best practices and challenges or utilizing simple mobile-based data collection tools for real-time monitoring of key quality indicators, providing valuable data for targeted interventions. Research consistently emphasizes the importance of regularly assessing patient satisfaction as a fundamental indicator of healthcare service quality and a driver for improvement. Al-Qudimat et al. examined the impact of healthcare service quality on patient satisfaction [16]. Their findings highlight the direct correlation between the quality of services provided and patient perceptions and satisfaction. Studies have also shed light on the complex and often challenging relationship between resource limitations and the quality of care delivery and patient outcomes, particularly in critical care settings. Adhikari et al. discuss critical care and the global burden of critical illness [17]. Their work underscores the significant challenges in providing adequate critical care in low-resource settings, impacting patient outcomes. The relationship between effective hospital management practices and the overall quality of care, especially within low- and middle-income countries, is a significant and ongoing area of study, highlighting the crucial role of leadership in driving quality improvements. Veronesi et al. provide a systematic review on the relationship between hospital management practices and quality of care [6]. Their review synthesizes global evidence, demonstrating the consistent link between strong management and improved quality metrics. Quality of care in Somali public hospitals must therefore strike a critical balance between adhering to global best practices and implementing contextually appropriate and feasible solutions. Jha et al. discuss the global burden of unsafe medical care [14]. This study reveals the alarming prevalence of preventable harm in healthcare settings globally, emphasizing the critical need for robust safety measures. Donabedian provides explorations in quality assessment and monitoring [15]. Donabedian's framework of structure, process, and outcome remains a fundamental model for evaluating and improving healthcare quality. Das & Mohpal provide evidence on socioeconomic status and quality of care in rural India [18]. Their research illustrates how socioeconomic factors can influence access to and the quality of healthcare received. The World Medical Association Declaration of Helsinki outlines ethical principles for medical research [19]. Adherence to ethical principles is paramount in all healthcare settings, particularly in vulnerable populations. Alshahrani et al. discuss patient

centered care [12]. Thaver et al. propose a Delphi study protocol to improve patient safety in fragile settings [4]. Their protocol outlines a systematic approach to gather expert consensus on strategies for enhancing patient safety in challenging environments.

2.3. Conviction of Healthcare Professionals: Fostering Ownership and Professional Identity

Cultivating a strong and unwavering sense of conviction among healthcare professionals working in Somali public hospitals is a critical endeavor that extends far beyond the simple dissemination of protocols and guidelines; it fundamentally necessitates fostering a deep-seated sense of ownership, a strong professional identity, and a commitment to continuous learning and improvement. Healthcare professionals who feel valued, adequately supported, and possess a genuine sense of ownership in their work are demonstrably more likely to be highly motivated to adhere diligently to established protocols and actively contribute to ongoing quality improvement initiatives.

This vital sense of conviction and motivation can be strategically nurtured and strengthened through the implementation of several innovative and contextually relevant approaches: (a) Participatory Protocol Development: Actively involving healthcare professionals at all levels of the healthcare system in the adaptation, review, and development of health protocols and medical regulations is crucial. This inclusive approach ensures that these essential guidelines are perceived as relevant, practical, and appropriately tailored to the specific conditions and challenges of the Somali context.

This process fosters a strong sense of ownership and significantly increases the likelihood of consistent and accurate adherence. (b) Mentorship and Peer Support Programs: Establishing structured mentorship programs that pair experienced and seasoned professionals with junior colleagues, alongside creating accessible platforms for peer-to-peer learning and the sharing of experiences, can significantly facilitate the vital transfer of knowledge, reinforce the importance of best practices, and help build a strong, supportive, and collaborative professional community.

These programs are particularly valuable in addressing feelings of isolation, stress, and burnout that healthcare workers may experience in challenging and under-resourced environments. (c) Simulation-Based Training: The strategic utilization of simulation exercises that realistically mimic common and critical real-world clinical scenarios can provide healthcare professionals with invaluable opportunities to practice and internalize essential protocols and procedures in a safe and controlled environment.

This hands-on training approach enhances their confidence, refines their skills, and strengthens their conviction in their ability to apply these guidelines effectively and competently. (d) Recognition and Reward Systems: Implementing trans-

parent and equitable systems that formally recognize and appropriately reward healthcare professionals for their consistent and diligent adherence to protocols, as well as for their valuable contributions to quality improvement initiatives, can powerfully reinforce positive behaviors and significantly strengthen their commitment to upholding high standards of care. Both financial and non-financial incentives, such as public acknowledgment, opportunities for further professional development or training, and career advancement pathways, can be particularly effective motivators in resource-limited settings. Legesse et al. examine job motivation and associated factors among healthcare professionals [35]. Their mixed-methods approach provides valuable insights into the complex factors influencing healthcare worker motivation in a similar East African context. Odhiambo, Buzuzi, & Goodman provide a systematic review of determinants of motivation among healthcare workers in the East African Community [37]. Their review identifies key motivational factors and disincentives for healthcare workers in the region. (e) Ethical Dilemma Training: Providing regular and relevant training on navigating the complex ethical dilemmas that healthcare professionals may encounter within the constraints and specific challenges of the Somali healthcare system is essential. This training equips professionals with the necessary critical thinking skills and ethical frameworks required to apply regulations appropriately, justly, and ethically, even in difficult circumstances. This type of training should be a continuous component of professional development programs. Research from various settings highlights the multifaceted factors that influence adherence to medical recommendations, including intrinsic patient-related factors, characteristics of the therapy or treatment regimen itself, and the crucial role of the healthcare professional. Dai et al. discuss enhancing therapy adherence [20]. Their research explores the positive impact of improved therapy adherence on clinical outcomes, costs, and patient quality of life. Studies on nurse-led interventions, such as targeted face-to-face visits, have shown promise in improving medication adherence rates in patients with chronic diseases, underscoring the impact of provider-led initiatives. Nyirenda & Namushi provide a systematic review of nurse-led interventions for improving medication adherence [21]. Their review synthesizes evidence on the effectiveness of nurse-led interventions in promoting medication adherence.

Furthermore, research indicates that sustaining professionals' adherence to clinical practice guidelines over the long term remains a significant challenge globally, emphasizing the ongoing need for effective and adaptable implementation strategies. Wensing, van der Weijden, & Grol discuss effective interventions for implementing guidelines and innovations [22]. Their work identifies key interventions that can facilitate the successful implementation of clinical guidelines. In resource-limited settings, specific barriers such as chronic shortages of essential commodities, insufficient human resources, and a lack of consistent supportive supervision can

significantly hinder health workers' adherence to vital case management protocols. Udofia et al. conducted a qualitative study on health workers' adherence to malaria case management protocols [23]. Their qualitative findings shed light on the specific challenges faced by health workers in adhering to protocols in resource-constrained environments. Cultivating a strong sense of conviction among healthcare professionals is therefore intricately linked to addressing these systemic and environmental factors, alongside fostering individual and collective professional growth and identity.

The availability of resources, manageable workload, and access to training opportunities are consistently reported as significant determinants of healthcare worker motivation in East Africa, a context that shares many similarities with Somalia [37].

3. The Dynamic Interplay: Fostering a Culture of Excellence

The interconnected influence of patient performance, the quality of care delivered, and the professional conviction of healthcare professionals extends far beyond simple linear cause-and-effect relationships. Instead, these three factors engage in a complex and dynamic interplay, creating a feedback loop that, when positively reinforced, possesses the transformative potential to foster a deeply embedded culture of excellence within Somali public hospitals. For example, when healthcare professionals consistently provide high-quality, patient-centered care – driven by their strong conviction in the importance of best practices and their professional responsibilities – they are significantly more likely to encounter engaged, cooperative, and satisfied patients.

This positive patient response, in turn, can serve as a powerful reinforcing mechanism, further strengthening the healthcare professionals' conviction and motivating them to continuously strive for improvement in their practice. Conversely, negative experiences in any of these interconnected areas can initiate and perpetuate a detrimental vicious cycle. For instance, if patients perceive the quality of care as poor or feel disrespected, their trust in the healthcare system and providers can erode.

This lack of trust can lead to poor adherence to medical advice and protocols, which in turn can be discouraging for healthcare professionals, potentially negatively impacting their morale, motivation, and ultimately their conviction in their ability to make a difference. Building and maintaining trust between patients and providers is therefore a fundamental prerequisite for improving healthcare outcomes and fostering a positive environment for protocol implementation.

The dynamic interplay between patient performance, quality of care, and professional conviction highlights the need for innovative and responsive leadership that can effectively nurture this positive cycle and mitigate the effects of negative feedback loops. Crucial leadership roles in fostering a culture

of excellence include: (a) Establishing and Communicating a Shared Vision: Effective leaders must articulate a clear, compelling, and shared vision for achieving high-quality care and ensuring strict adherence to regulatory compliance.

This vision must be effectively communicated to all stakeholders, including patients, community members, and all levels of hospital staff, utilizing various accessible communication channels to ensure broad understanding and buy-in. (b) Promoting a Robust Culture of Safety and Continuous Learning: Leaders must actively cultivate an environment where reporting errors and near misses is encouraged, and where mistakes are viewed not as opportunities for blame but as valuable learning opportunities to identify systemic weaknesses and implement preventative measures. Implementing robust incident reporting systems and conducting regular morbidity and mortality reviews are essential components of this culture. (c) Empowering Frontline Staff: Providing frontline healthcare professionals with the necessary autonomy, resources, and support to implement protocols effectively, exercise their professional judgment, and address patient needs in a timely and appropriate manner is critical for fostering a sense of ownership, accountability, and empowerment.

This includes involving them in relevant decision-making processes and providing opportunities for skill development. (d) Implementing Data-Driven Decision Making: Utilizing available data, even if limited, to monitor key performance indicators related to patient outcomes, quality of care, and adherence to protocols is crucial for effective management and targeted interventions. Implementing simple, low-cost data collection and analysis systems can provide valuable insights for identifying areas needing attention and evaluating the impact of implemented strategies. Said et al. examine health management information system utilization in Mogadishu [24]. Their study provides valuable data on the current state of HMIS implementation and associated factors in the local context. (e) Building Trust and Ensuring Transparency: Maintaining open, honest, and transparent communication channels between hospital management, staff, and patients is essential for building trust and fostering a collaborative environment conducive to delivering high-quality care and ensuring protocol adherence.

Establishing formal feedback mechanisms for both patients and staff can help identify areas of concern and build a sense of shared responsibility for improving the healthcare system. Strong and effective leadership and management are consistently recognized as crucial determinants of a well-functioning health system, particularly in challenging contexts. Dioso discusses leadership and management in public health settings in Somalia [25]. Dioso's work offers insights into the specific leadership and management challenges and opportunities within the Somali public health sector. The World Health Organization provides a handbook for leadership and management in health for country offices [26]. This handbook provides practical guidance for strengthening leadership and manage-

ment capacities at the country level. Bloom et al. discuss management practices and productivity [5]. Their research highlights the significant impact of effective management practices on organizational productivity. Hassan explores public health leadership in fragile states [31]. Hassan's work draws lessons from South Sudan, offering transferable insights for strengthening leadership in similar fragile contexts.

4. Contextualizing Innovation in the Somali Healthcare Landscape

The unique and significant challenges inherent in the Somali healthcare landscape demand the development and implementation of contextually relevant and truly innovative solutions. These solutions must be carefully designed to be adaptable, scalable, and sensitive to the prevailing socio-economic conditions, cultural norms, and security realities on the ground. While external models can provide inspiration, successful interventions must be grounded in a deep understanding of the local context. Some promising innovative ideas for enhancing patient performance, improving the quality of care delivered, and strengthening the professional conviction of the healthcare workforce within this specific context include: (a) Expanding Mobile Health (mHealth) Initiatives: Capitalizing on the increasing mobile phone penetration and network coverage across Somalia, mHealth initiatives offer a powerful avenue for disseminating essential health information, sending timely reminders for appointments and medication adherence, collecting valuable patient feedback on their experiences, and even facilitating remote consultations with healthcare providers.

These initiatives can effectively overcome geographical barriers and improve access to information and basic health services, particularly in remote or underserved areas. Ahmed discusses the role of digital innovations in revolutionizing healthcare in Somalia [39]. Ahmed's work underscores the transformative potential of digital health technologies in improving access and quality of care in Somalia. (b) Strengthening and Expanding Community Health Worker Networks: Investing in the training, support, and expansion of existing community health worker networks is crucial. These dedicated individuals serve as a vital link between healthcare facilities and their communities, playing a critical role in health education, the early detection and referral of illnesses, and promoting adherence to essential health protocols at the household and community levels. Their embeddedness within the community makes them trusted messengers and key agents of change. Noor discusses the role of community health workers in health education in Somalia.

Noor's research highlights the valuable contribution of community health workers to health education efforts in Somalia [32]. Jele, Rispel, & Harris study the mobilization towards formal employment in the healthcare system for community health workers [36]. Their study explores the pathways and challenges for community health workers tran-

sitioning into formal healthcare employment. (c) Enhancing Telemedicine for Specialist Support and Training: Further developing and expanding telemedicine platforms can significantly improve access to specialized medical knowledge and guidance by connecting healthcare professionals in remote public hospitals with specialists located in urban centers within Somalia or even internationally. This is particularly valuable for managing complex medical cases, providing remote diagnoses, and offering ongoing training and support to frontline staff, thereby improving the overall quality of care. (d) Exploring Thoughtful Partnerships with Traditional Healers: Given the significant role traditional healers play in the Somali healthcare landscape and their strong connections within communities, exploring potential collaborations, while strictly maintaining a focus on evidence-based medical practices, can help bridge cultural gaps, build trust in the formal healthcare system, and facilitate referrals for conditions that require professional medical attention.

This requires open dialogue, mutual respect, and a clear understanding of roles and limitations. (e) Implementing Contextually Appropriate Gamification and Incentive Programs: Introducing gamified approaches and offering small, culturally appropriate incentives (both financial and non-financial) can be effective in motivating both patients to engage in healthy behaviors and adhere to treatment plans, and healthcare professionals to actively participate in quality improvement initiatives and consistently adhere to protocols. Gamification can make health education and adherence more engaging, while incentives can provide tangible recognition and motivation. (f) Phased Implementation of Digital Health Records: Even in resource-limited settings, exploring and implementing low-cost, user-friendly digital solutions for maintaining patient records can significantly improve efficiency, reduce medical errors associated with paper records, and facilitate the systematic collection and analysis of data for quality monitoring and service planning. Simple mobile-based record-keeping systems can be a practical and affordable first step towards the digitalization of health information.

The Somali healthcare context presents a unique set of challenges, including a fragmented healthcare landscape with a disproportionate concentration of facilities in urban areas and limited mechanisms for robust quality control. Addressing these systemic weaknesses through innovative and contextually tailored solutions is crucial for achieving sustainable improvements in healthcare access, quality, and outcomes across the country. Despite these challenges, there is a growing recognition of the potential of digital health technologies to transform healthcare delivery in Somalia, with various initiatives already demonstrating promising results. Diaconu et al. discuss refining the concept of fragile states for global health and development [34]. Their work provides a nuanced understanding of the characteristics and complexities of fragile states in the context of global health initiatives.

The MedCOI report on healthcare services in Mogadishu

provides relevant information on the healthcare landscape [27]. This report offers a detailed overview of the available healthcare services and infrastructure in the capital city.

5. Conclusion: Towards a Resilient and High-Performing Somali Public Healthcare System

The aspirational journey towards building a truly resilient and high-performing public healthcare system in Somalia is fundamentally contingent upon a comprehensive and nuanced understanding of the dynamic and intricate interplay between patient performance, the quality of care that is consistently delivered, and the unwavering professional conviction of the dedicated healthcare workforce in upholding essential health protocols and medical regulations. This expanded analysis underscores the critical necessity to move beyond conventional, often outdated, approaches and to actively embrace innovative, contextually relevant, and adaptable strategies that are specifically designed to empower patients as active participants in their health journey, effectively equip healthcare professionals with the necessary knowledge, skills, and support, and foster a deeply ingrained culture of continuous improvement throughout the healthcare system. These strategies must not operate in isolation but should be strategically integrated into a cohesive and comprehensive national health plan that prioritizes health systems strengthening at all levels.

Effective management and visionary leadership in this context are not merely about the top-down implementation of policies and procedures; they are fundamentally about actively cultivating an environment where every single stakeholder – from the patient seeking care for themselves or their family to the frontline healthcare professional providing essential medical services – feels genuinely invested in and committed to achieving the shared overarching goal of optimal health outcomes for all, and contributing to the development of a stronger, more trustworthy, and equitable healthcare system that serves the needs of all Somalis.

Future research endeavors should prioritize the rigorous evaluation of the impact and effectiveness of these proposed innovative approaches within the specific and complex Somali context. This research must employ robust methodologies to ensure that implemented interventions are truly evidence-based, profoundly culturally sensitive, and demonstrably contribute to the long-term sustainability and resilience of the public healthcare system. Longitudinal studies and implementation research are particularly needed to assess the sustained impact of interventions on key indicators such as patient health outcomes, quality of care metrics, healthcare professional practice patterns, and overall health system performance over time.

The findings generated from such critical research will be invaluable for informing future health policy decisions,

guiding strategic resource allocation, and ensuring that efforts to strengthen the Somali healthcare system are as effective and impactful as possible. Building a resilient health system in Somalia requires sustained political commitment, increased and predictable financial investment, strengthened governance structures, and a deliberate focus on enhancing primary healthcare services and expanding effective community-based interventions to reach all segments of the population, including those in remote and underserved areas. UNICEF provides updates on mortality patterns in Somalia [28] and WHO provides data on life expectancy [29] and a Country Cooperation Strategy for Somalia [30]. These data and strategic documents provide essential background information on the health status and policy environment in Somalia.

Abbreviations

HMIS Health Management Information System

Author Contributions

Abdulrazaq Yusuf Ahmed Demartino is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest.

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