

Emergency Response In Healthcare: Areas That Need Significant Intervention In Sub-Saharan Africa (SSA)

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Abstract:

Background: Emergency health response is one of the most important healthcare services as it is the last line of defense against mortality from accidents or chronic conditions. Nonetheless, the COVID-19 pandemic highlighted numerous issues and concerns about the current emergency response, its limitation, and what needs to be done. Considering the importance of emergency response in healthcare, the current study evaluated the areas that need immediate intervention with respect to emergency health services in sub-Saharan Africa.

Methodology: The current study was qualitative and adopted a systematic literature review approach. The study reviewed articles from reputable journals published between 2012-2022. The researcher identified 170 articles. However, after vigorous evaluation of the quality of the journals, only 10 met the inclusion criterion.

Conclusions: the review highlighted a myriad of issues in the emergency health response in Sub-Saharan Africa. These include poor supply chain and logistics, poor infrastructure, inadequate medical facilities, limited resources, lack of coordinated emergency service provision, overcrowding of the emergency department, and limited bed capacity.

Keywords: Emergency, Sub-Saharan Africa, Medical Facilities, Healthcare

I. INTRODUCTION

Emergency response in healthcare remains an important element in mortality and risk management in healthcare as it serves as the final line of defense of mortality with respect to chronic diseases and accidents [1]. In the wake of the healthcare emergencies across the world caused by outbreaks of pandemics such as Ebola in West Africa, SAR-COV in China, and Coronavirus pandemic across the world, the global healthcare system was pushed to its limits and almost to its breaking point, illuminating various challenges and shortcomings in emergency response and healthcare [2]. Internationally, supply chain challenges for Personal Protective Equipment emerged, particularly in the United States, Europe, and Africa [3]. Additionally, lack of information remains a significant issue limited information,

particularly on the best practices backed with data that can help improve the outcomes and the delivery of proper emergency services. Additionally, in many parts of the world, the emergency departments were overcrowded, and the bed capacity of the hospitals was overwhelmed, forcing governments and healthcare providers to have makeshift wards to help increase capacity in the healthcare facilities [4]. The grim image caused by the COVID-19 pandemic calls for the need to assess areas that need significant intervention in emergency case response in healthcare.

II. METHOD

In the current review, the researcher adopted systemic literature review (SLR) methodology, which followed the

following steps: (i) framing the research question, (ii) identifying relevant work, (iii) assessing the quality of studies, (iv) summarizing the evidence (v) interpreting the findings and presenting conclusions and recommendations. The following research question guided the review for the current study: What is the significant areas of need in health emergency response in Sub-Saharan Africa. To identify the relevant studies to be included in the study, the researcher searched through three healthcare journal databases, Embase, PubMed, and MEDLINE. The researcher used the keywords: "Emergency medicine," "hospital health emergency," "mortality," "emergency response," "challenges," "areas of need," "emergency medical services," "emergency ward." The researcher limited the search scope from the journals published from 2012 to 2022.

PRISMA Diagram

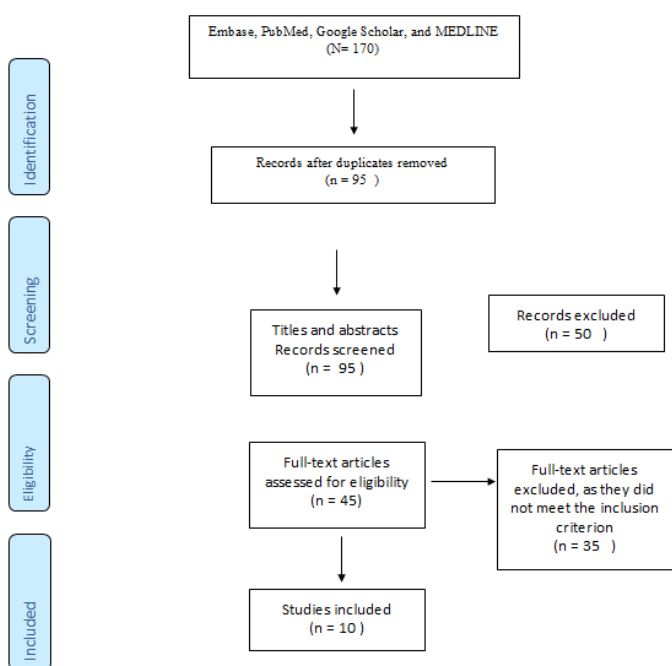


Figure 1

III. DATA COLLECTION AND QUALITY ASSESSMENT

The researcher worked with two independent reviewers to assess the records' titles, abstracts, and methodological validity using data extraction format before their inclusion in the final review. The first phase of the review involved mapping the existing gaps in the literature and a little summary of the evidence related to barriers. This phase was followed by evaluating the journal articles for inclusion and exclusion characteristics which included the language of the publication, the study locale, setting, type of source, and the focus of the study. Table 1.0 below illustrates the inclusion and exclusion criteria used in the study.

CRITERION	INCLUSION	EXCLUSION
TIME FRAME	January 2012 – January 2022	Articles published before 2012-2022
LANGUAGE	English Full Article	Non-English/ Abstract
TYPES OF SOURCES	Original research published in a peer-reviewed journal	Books, magazines, newspapers, blogposts
SETTING	Hospital, communities, emergency scenes	Nursing homes, wards, and nursing schools
PHENOMENON	Challenges in emergency response	All studies not related to emergency response
LOCATION	Countries in Sub-Saharan Africa	Countries outside Sub-Saharan Africa

Thirdly, the search strategy involved finding articles on the areas that need intervention regarding emergency response, including different challenges that make it impossible to achieve effective disaster management. The search included various electronic journal databases, including Embase, PubMed, and MEDLINE. To ensure that not any important journal was left out, the researcher also searched Google Scholar for various articles within the time frame of 2012 to 2022

IV. FINDINGS

Selected studies	Research methodology and objectives	Place of study	Areas of constraint
[5]	Qualitative systematic literature review. The study evaluated the management of emergency and complex disasters in Africa.	Nigeria	<ul style="list-style-type: none"> Personnel Transportation Communication Triage Logistic and supplies
[6]	The study adopted an action research approach based on a cross-sectional survey to evaluate the disaster management capacity of Gambia.	The Gambia	<ul style="list-style-type: none"> Lack of capacity in implementing disaster risk reduction measures
[7]	The study adopted an observational design of all the	Kenya	<ul style="list-style-type: none"> Lack of pre-hospital transportation Lack of

	patients presented to the emergency center at Moi teaching and referral hospital in 2011		community mental health service provider
[8]	The study adopted a case study approach to evaluate logistical challenges affecting the Kenya Red Cross Society (KRCS) to provide emergency responses in Kenya.	Kenya	<ul style="list-style-type: none"> Lack of multi-agency coordination Overreliance on donor funding Poor transportation infrastructure
[9]	The study adopted a qualitative approach. The researcher conducted interviews with members of the local communities later subjected the data to thematic analysis to map out the main themes relating to emergency response in the country.	Uganda	<ul style="list-style-type: none"> Cultural factors and limited knowledge of emergency signs and initial actions to take Utilization of the local health facilities despite the perception of inadequate services Lack of resources to cover the cost of obtaining emergency care Inadequate transportation options
[10]	The study conducted a critical review of logistic and supply chain management and a qualitative analysis of the existing literature. The study's main objective	Ghana	<ul style="list-style-type: none"> The paper disclosed the significance of the logistic models for sourcing, delivering, and distributing medical and healthcare products for humanitarian emergencies.
[11]	The study reviewed secondary data on challenges in medical healthcare in Tanzania.	Tanzania	<ul style="list-style-type: none"> Inadequate emergency care service Inadequate transportation infrastructure Extended lead time to hospital admissions, evaluations, treatment, and transfer to ICU Inadequate ICU and hospital

			infrastructure Unreliable consumable and medical equipment supply chains
[12]	The study adopted demographic and health survey DHS to interrogate healthcare institutions' quality, infrastructure, and the utilization of resources.	Kenya, Tanzania, Uganda, Rwanda, Ghana	<ul style="list-style-type: none"> Inadequate medical facilities Inadequate medicine storage facilities Lack of quality systems
[13]	The study reported the formative evaluation for emergency response in healthcare in Africa.	Sub-Saharan Africa	<ul style="list-style-type: none"> Lack of political will Weak health system Limited evidence on emergency management
[14]	The study aimed to explore the challenges experienced by nurses working in the emergency department of a secondary referral hospital. The study adopted an exploratory qualitative research design based on constructivist and grounded theory approaches.	Ghana	<ul style="list-style-type: none"> Overcrowding Inadequate managerial support Understaffing at the emergency unit Lack of emergency equipment

V. DISCUSSION

From the evaluation of the journal articles, the primary themes that have emerged include lack of centralized emergency coordination institutions, inappropriate logistics, and supply chain, inadequate resources, and infrastructure. According to the findings of Mwangi and Anaya (2020) in a study conducted in Kenya, one of the biggest limitations of emergency response in the country includes the lack of multi-agency coordination. Most agencies and facilities offering emergency services such as accident evacuation tend to operate independently and often overlook other important organizations. This assertion is mirrored in the assertions of Olu (2016) that pointed to lack of multi-sectoral coordination as one of the biggest limitations of health emergency response. The second theme that emerged in the evaluation is inadequate resources and infrastructure. Eight out of ten studies included

in the study confirmed that resources such as staff, medical equipment, medical storage facilities, and inadequate emergency service resources significantly increased the waiting time of the patients in need of emergency healthcare services. The problem of resources extends to human resources, where the studies report that the emergency care services are severely understaffed, making it hard for the patients to receive adequate care and attention. Infrastructure and vehicles that link patients from the emergency with the most appropriate healthcare facility are a major concern across the board in Sub-Saharan Africa. Road infrastructure impedes patients' fast and efficient transportation to the most appropriate healthcare facilities that can offer emergency care services.

Additionally, the findings also indicate that most of the hospitals in the Sub-Saharan could not offer proper and adequate Emergency health services. This is often caused by a lack of political will, limited evidence on the management of emergencies, and a weak health system. In Kenya, Rwanda, Uganda, Ghana, and Tanzania, the findings indicated inadequate medical facilities, limited medicine storage capacity, and lack of quality system, which adversely affected the hospitals' ability to deliver quality emergency care services [12]. The lack of ambulance services further exacerbates the problem of emergency service provision as it makes it harder for people who need medical and emergency services to access them on time, often resulting in adverse consequences.

VI. CONCLUSION

The study's findings confirm that there is a myriad of issues with regard to emergency management in sub-Saharan Africa. First, the findings confirm that the lack of a central emergency coordination institution in most nations in sub-Saharan Africa greatly impedes the nation's ability to respond to emergencies on time. These institutions include emergency dispatch centers and ambulance services. Additionally, the findings confirm that sub-Saharan Africa faces the problem of inadequate resources to provide emergency care services. The resources include personnel, including the first responders at the point of emergency and medical practitioners who offer medical services. The lack of political will is also an issue that affects emergency service provision as many of the policies in the medical practices give little attention to the emergency services. Lastly, the infrastructure issue in terms of roads impedes the transportation of people in need of medical services to medical facilities, often increasing the risk of mortality.

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