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Review of Emergency Health Care Delivery System in Nigeria

C. L. Okpalla [a*], H. C. Inyiama [b#], J. N. Odii [a], C. I. Chukwuneke [c] and U. C. Onyemauche [a]

[a] *Department of Computer Science, Federal University of Technology, Owerri, Nigeria.*
[b] *Department of Electronics and Computer Engineering, Nnamdi Azikiwe University, Awka, Nigeria.*
[c] *Department of Computer Science, Nnamdi Azikiwe University, Awka, Nigeria.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Review Article

Abstract

The paper reviews several emergency health care delivery systems and suggests possible remedies. The health care sector is inefficient due to lack of effective management and access to patients' health records especially in an emergency. Emergency care systems are very important. The acutely ill and injured receive fast and suitable care through emergency health care systems. The need of strengthening health care systems as a fundamental component for achieving improved health outcomes is receiving more emphasis. Improving emergency medicine will make a significant contribution toward obtaining good health care. Emergency medicine will be more accessible if there is a good road network, Management Information System (MIS), surveillance systems and emergency call centers that are connected to ambulance services and hospitals. The paper will be of immense benefit to all health care workers, hospitals and Government.

[#] *Professor;*
**Corresponding author: Email: lilymmao@yahoo.com;*

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1 Introduction

“Every day, acutely ill and injured people of all ages seek treatment all around the world. They will seek assistance from neighbours, the police, or universal emergency numbers. Family members, community individuals with first-aid training, or professional prehospital professionals will assist them. They can get to the hospital on foot, via motorcycle, taxi, or ambulance. They may or may not locate a designated emergency area and clinicians capable of providing the care they require when they arrive” [1].

“Emergency care systems (ECSs) deal with a variety of acute problems, including as injuries, communicable and noncommunicable diseases, and pregnancy issues. People may seek medical help only when they are very ill or injured, especially if there are impediments to health care access. Emergency care is a vital component of universal health coverage—a critical mechanism for providing accessible, cheap, high-quality care—and it is the primary point of access to the health system for many individuals around the world” [1].

The World Health Organization (WHO) has declared emergency treatment to be a human right, and countries have an ethical commitment to provide this service to the entire population [2]. Humans have an urge to seek for a better living environment for themselves and their families. There are various factors to consider when deciding whether or not a location or city is suitable for living. Quality of life is a crucial measure and having access to high-quality health care is a vital element of that. The time element and simple access to health care services, especially in emergency situations, are part of modern medicine's quality assessment of health care [3]. The paper reviews emergency health care delivery system in Nigeria and proffers possible remedies.

2 Literature Review of Emergency Health Care

“Enhancing a health system’s responsiveness to people’s expectations leads to improved utilization of services and better outcomes” [4]. “In many communities, having access to medical care for urgent or life-threatening conditions is a major expectation. According to a study done in rural Nepal, people visit their main health care facility more frequently for medical emergencies than for preventive treatments like family planning or prenatal care. The population perceived a strong need for accessible emergency medical and surgical services throughout the district” [5]. “A survey conducted in two communities in Sri Lanka revealed that people expected to receive emergency care from the primary care system. Most of the time, they employed conventional home remedies for mild ailments, but when a child appeared dangerously ill or had acute symptoms, they went to primary care medical facilities” [6]. Many women in southern Nigeria voiced skepticism about the ability of modern medicine to treat pregnancy issues. For medical situations that could not be treated with conventional ways, they did regularly seek hospital care. They highlighted increased health center staff training and the availability of ambulances for emergencies when asked to list their top priorities for health services [7]. Emergency medical treatment plays a complicated role in preventing financial ruin due to medical expenses. When an acute illness or injury strikes, people and their families are forced to make a decision between the possibility of financial ruin due to medical costs and the possibility of death or permanent disability due to a lack of medical care. Both options have the potential to be disastrous in the long run. Whether the system offers financial security through prepayment choices, government-provided health care, or other insurance systems, prompt access to care during an emergency is crucial.

There are three parts to emergency medical care: care in the community, care while traveling, which is connected to the issue of access, and care after the patient arrives at the receiving medical facility. It is intended to address the issues that are most frequently linked to avoidable death, namely access to health care facilities, delays in seeking care, and the provision of quality care there [8].

Early identification of the severity of an acute disease or injury and the requirement for medical treatment have a significant impact on how it will progress. Any strategy to encourage the early identification of emergency conditions should be based in the community because the majority of emergencies begin at home. Reducing wait times for medical attention is crucial for saving the lives of pregnant people [9]. A sizable majority of maternal deaths in Zimbabwe are preventable, including the failure of health professionals to recognize serious complications and to quickly refer seriously ill women to higher levels of treatment [10]. “Similarly, early

referral of seriously ill children to medical facilities can lower infant mortality. Children's mortality was considerably decreased in Mexico as a result of training mothers and first-level health care providers in the fundamentals of triage. Deaths attributable to respiratory and diarrheal sickness among children under 1 year of age decreased by 43% and 39%, respectively. These conditions reduced mortality among children under the age of five by 36% and 34%, respectively" [11]. There are not many statistics on how community health workers and laypeople can be taught to identify life-threatening emergencies except maternity and pediatric diseases. But it stands to reason that if a health professional can be taught to spot significant blood loss in a new mother or breathing problems in a baby, he or she may be taught to spot severe blood loss in a trauma victim or breathing problems in an adult with asthma. By imparting knowledge of basic but essential interventions, such as establishing and maintaining a patent airway, controlling external bleeding, and immobilizing fractures using local supplies and resources, to community volunteers, many of the advantages of pre-hospital emergency care could be attained [12].

2.1 Emergency medical service (EMS) in Nigeria today

"The current state of EMS in Nigeria reflects numerous attempts by both state governments and private groups, all of which require Emergency Medical technicians (EMTs), paramedics, or any other special prehospital training" [13].

Rather, doctors and nurses were pulled from hospital wards and consulting rooms onto ambulances. Some jurisdictions purchased a huge fleet of ambulances, the majority of which were staffed by roadside drivers and lacked the requisite rescue or resuscitation equipment.

Instead of being a health requirement, EMS has become a political yardstick. These politically driven EMS organizations were announced with great pomp and coverage in the media. Turning attention to EMS, regardless of motivation or quality, is a great step forward in a culture that has not recognized emergency medicine and emergency health care as critical components of health care management [14].

In Nigeria, health insurance is still inadequate, with no significant provision for EMS [15]. In light of this, even private attempts at EMS ran into major problems, as expenditures were not recouped from victims or their relatives.

Programs have been starved of finances to the point of catastrophic collapse because prior governments did not have an interest in or realize the tremendous benefits of an EMS system. When a government refuses to provide EMS, it is generally on the edge of being cancelled until another government shows interest [16].

In April 2016, six medical practitioners on their way to a conference were killed in a bus accident, highlighting the critical need for competent EMS in Nigeria. Officers from the Federal Road Safety Administration came at the scene to help, but they were not trained as first responders. The victims were loaded into a van and driven to a neighbouring hospital. More deaths occurred as a result of a lack of training in providing effective resuscitation and patient stabilization [17].

Due to the fact that the government-owned hospital was not prepared for an emergency, the victims who arrived alive were unable to receive care. Many of the victims would not have died if emergency medical care had been provided, according to one of the survivors [17].

2.2 Efforts to improve EMS

The private sector has begun to fill the void created by the government's poor pace in implementing nationwide EMS in the country. After Tokaro Emergency Medical Services, Critical Rescue International (CRI) became the first formal private EMS. CRI strives to meet worldwide standards and guarantees that their ambulance crews receive regular training at the Emergency Response Services training facilities. To instruct Nigerians, CRI uses the expertise of international experienced paramedics.

International SOS, whose fleet includes mostly of qualified and experienced doctors, previously focused on international medevac but has recently begun providing ambulance services in the country.

The Emergency Response Services Group's EMS section is called Emergency Rescue and Resuscitation Services (ERRS). ERRS generally provides consulting services to the oil sector, but plans are in the works to make services available to the general public as well.

Flying Doctors International (which focuses on medevac), First Assistance, and other EMS groups are among the others. Rather than EMS, the majority of these organizations provide ambulance services. There is limited patient intervention during transit because there are no paramedics on board, with an emphasis on basic life support (BLS). Private EMS and ambulance services would be able to train their workers and update their services as a result of the recent development of paramedic colleges in Nigeria.

At the local, state, and federal levels, the situation is likewise fast improving. Major health facilities are located distant from rural areas, roads are in poor condition, and the population is sparse. At this point, a personalized approach to EMS appears to be the best option. A village in one of the eastern states has established a unique procedure in which casualties are transported to the nearest hospital on a two-wheeled motorcycle.

A model community EMS run by volunteers has arisen in Imo state. The system is low-cost, easy-to-use, and effective. When completely examined, it could serve as a model for Nigerian rural EMS.

The Lagos government has acknowledged the necessity to preserve the health of the teeming people as the most populated city in West Africa and has committed more funds in their EMS than any other state in Nigeria. Lagos was the first state to implement EMS, and it has maintained its lead with 15 ambulance stations and the recent acquisition of intensive care ambulances. There is currently a renewed emphasis on training and retraining the rescue personnel, the majority of whom are nurses. Lagos has also formed a Marine Rescue team to deal with the rising number of automobile accidents in the lagoon.

“The Lagos state government has launched an awareness campaign that includes free treatment for the first 24 hours of a stay, a dedicated and easy-to-remember phone number (123), and a standard communication network and call center to address public apathy in prehospital emergency care and stimulate public interest” [18].

Despite the fact that programs like International Trauma and Life Support (ITLS) and American Heart Association (AHA) programs (BLS, ACLS, PALS, and others) are available in Nigeria, neither the Lagos state EMS crew nor the health care professionals in other state ambulance services have maintained current certification in these critical programs. Doctors currently working in EMS have no training in ATLS or ITLS. Formal EMT and paramedic training has begun in the country to address this issue. States must now send their employees to accredited professional training programs.

The National Association of State EMS Directors has emerged as more states continue to deploy EMS. The majority of the association's directors are orthopedic surgeons with no prior experience or training in prehospital care. There has been a lot of demand on the federal government for EMS in the country for a long time. The Emergency Response Services group has made multiple presentations to and attended meetings with appropriate federal officials in the private sector.

The idea for a federally sponsored, nationwide EMS was first proposed in the 1970s in response to the high rate of trauma injury caused by high automobile accident rates, insurgency, oil line explosions, floods, frequent building collapses, and other occurrences. EMS development was stifled in the absence of federal support, forcing states to take the initiative. There was a rise in demand for EMS in the final months of the previous administration, prompting the federal government to establish a committee charged with developing a curriculum for paramedic training. In addition, the government has now approved the functioning of two pilot colleges that will follow the new curriculum.

2.2.1 Major flaws in the Nigerian health care system

“Despite numerous measures to boost the availability of health care for Nigerians, just 43.3% of the population has access to it” [19]. “The unusual demographics of the Nigerian population may be to blame for the inadequate health care delivery system in that country. Only 45% of people live in cities, with rural areas housing about 55% of the population” [20,21]. “Only 30% of health care is provided by the government, with the remaining 70% coming from private providers” [20,22]. Over 70% of the medications prescribed are of poor

quality. Therefore, the NIHS's inefficiency has recently been attributed to the fact that just 40% of the country's population is covered by the program, and 52–60% of people work in the unorganized sector. Since more than half of people make less than $1 per day and are below the poverty line, they cannot afford the high expense of health care [21]. Additionally, a previous study by Akande had noted a poor referral system between the various health care tiers, which is likely indicative of the poor managerial capabilities of the health care delivery system [23]. Some have attempted to address the aforementioned shortcomings at the primary health care level. For instance, a number of community health finance initiatives (Community Based Health Insurance (CBHI)) from people's efforts to meet the requirements of their communities in terms of health are reported [19,23]. The plan has also been started by several metropolitan subpopulations. According to a recent study by [19], the number of CBHI probably exceeds 585. The authors of that study stated that both urban and rural communities had strong preferences for health care benefits. The CBHI has issues with its extremely limited and insufficient funding capacities. Despite this, several CBHI have broadened their scope to become registered as health maintenance organizations [19].

Inaccessibility to the quality of health care services is another issue, but the NHIS still faces this issue. While many features of the Nigerian health care system have been described in several studies, no work has been done on disease monitoring or MIS approaches to meet the needs of the Nigerian population in the modern era; practically speaking, surveillance systems receive little attention. Consequently, the absence of suitable MIS systems to monitor disease outbreaks, mass chemical poisoning, etc., is a significant weakness of the Nigerian health care system.

2.2.2 Moving EMS forward

Nigeria's present government is even more committed to achieving effective and efficient EMS. Ambulance operation rules and call numbers were approved at the National Council of Health's most recent meeting a few months ago. Most crucially, a provision was provided in the national budget to establish a consistent source of finance for the country's EMS operations.

Previously, no provision for emergency treatment was included in health bills or health care reforms. The new health-care bill, on the other hand, recognizes the necessity of emergency care.

“Minister of Health Isaac Folorunso Adewole has issued a directive directing that victims of trauma, gunshot wounds, and accidents be treated immediately by a health facility before being asked for payment or a police report—a condition that has previously seen victims turned away from hospitals even when EMS or road safety has brought them there” [17].

An EMS system must be available when it is needed, easy to use, inexpensive, and adapted to the socioeconomic situation of the society. These factors are being worked on by the federal Ministry of Health to ensure the project's long-term viability.

In 2012, the Federal Ministry of Health cooperated with Israel to send doctors from some of Nigeria's teaching hospitals of Abuja, Jos, and Maiduguri to Tel Aviv in Israel for two weeks of training across an attempt to introduce EMS in the country. It became clear that the two-week training period was insufficient to develop prehospital workers, and that it was also insufficient to establish an EMS program in Nigeria [24].

The Federal Ministry of Health has authorized the Emergency Response Services Group to ensure that all doctors and nurses working in the emergency departments (EDs) of all federal health institutions are updated on resuscitation capabilities in order to assure the quality of care and patient safety. The ED will then be able to take over treatment from the prehospital professionals in a smooth and efficient manner.

International Trauma Life Support (ITLS) was recently introduced into the country in an effort to support the continued medical education of paramedics and ambulance staff. In Nigeria, the Australasian Registry of Emergency Medical Technicians (EMTs) was established, with a focus on fast-track training programs for experienced nurses, doctors, and health scientists. These are intended to supplement existing workers until the federally funded paramedics become available.

3 Conclusion

The study reviews studies on emergency health care systems. People's understanding of emergency health care services has just recently begun to grow. Despite numerous measures mentioned in the literature review to boost the availability of health care for Nigerians, there is still inaccessibility to the quality of healthcare services. There is still a lot of work to be done in order to have an effective medical system, particularly in terms of having a quick reaction in the event of an emergency. The findings of this study will aid health care professionals, policymakers, and community leaders in identifying gaps in the emergency care system and proposing remedies that are in line with the community's needs, values, and expectations.

4 Recommendations

1. The public should be educated on the importance of having quality health care delivery
2. Adequate facilities and equipment should be made available in the hospitals by the Government in case of emergency
3. Adequate training should be organised for the medical staff so as to improve in emergency medicine
4. Introduction of adequate MIS systems to track disease outbreaks.
5. Provision of Surveillance systems.

Competing Interests

Authors have declared that no competing interests exist.

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