

CHARACTERISTICS AND CAPABILITIES OF EMERGENCY DEPARTMENTS IN ABUJA NIGERIA, 2011

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SOURCE

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REVIEW OF LITERATURE

This study aimed at assessing the emergency department of the Nigerian capital Abuja which mirrors the state of emergency in Nigeria. The study aimed to use the state of emergency in the emergency developed areas as a yardstick to be able to determine the situation in Nigeria. If possible the literature should show what it is in other resource limited environment.

The literature should indicate the emergency department standard code employed for assessment.

The authors indicated that there is no study that addressed how emergency medicine is delivered in Nigeria.

However going by the literature as referenced, the author looked at the similar study of emergency infrastructure in a resource limited country as Nigeria (1).

The survey instrument was said to have been used in four other countries to profile their emergency department but it was not referenced properly.

There were not sufficient references especially similar studies done in Nigeria (2, 3).

INTRODUCTION

In this article review we will look at the various aspect of this article in terms of its relevance, structure, accuracy, objectivity and stability. We shall also look at how it relates to the existing literature. We shall look at the data analysis and see if the results agree with what the author has inferred or set out to achieve. We shall also see if there are some significant results which the

author did not infer from the data. We shall summarize the article bringing out the main points which the article has determined.

We shall also look at the background of the authors, the setting in which the study was carried out and whether the suggestions of the authors were relevant to the study population and background, we will suggest how to improve on the outcome and further studies which may be necessary as a result of the present findings.

We point out our areas of agreement with the authors and our areas of disagreement, stating reasons why we disagree. We shall look at similar studies by other authors and see how it agrees or differs from this study. We will finally conclude the review by stating the benefits of the study and the grey areas that need further studies.

ARTICLE SUMMARY

This article looked at the present state of the emergency departments of a resource limited society of Abuja, capital of Nigeria. The authors looked at 24 emergency departments in the area via questionnaire administered to the emergency department staff and authorities as to the emergency department characteristics with reference to 2008. They found that majority 92% of the emergency departments had their emergency department in same area with their medical and surgical care. All the emergency departments were attending to both adult and pediatric cases and all accepted that their emergency departments were underutilized. The emergency departments lacked basic and essential technologies such as CT scanners, cardiac monitor, ventilators. The authors also found that the level of emergency care depended on the level of doctors that manned the emergency department. The higher the doctor the greater complex emergency cases they could handle.

The authors concluded that most patients are not using the emergency departments during emergencies and suggested that it may be necessary to determine the type of emergency equipment that can be relevant and affordable in the resource limited settings and the need to train emergency physicians to contain the brain drain suffered in some areas.

ARTICLE STRUCTURE

The article is well structures and followed the standard format which begins with an abstract. The abstract was clearly delineated into headlines of objective, method, results and conclusion. This was followed by non headed introduction which was quite informative, giving the relevant Nigeria background and the emergency burden of a 150 million people and yet with little or no elaborate emergency department. The study population was clearly shown though the sampling method was not adequately stated. The results were shown as figure and tables. Whereas the figure 1 showed the overall emergency department characteristics, table 1 showed the response including patient experiences in the emergency department, length of stay in the emergency department and rate of inpatient admission from the emergency department.

The author drew his conclusions from the results as stated but I would say he over concluded as some of the conclusions were not part of the objective of the study, neither were they inferred from the result.

The author recognized the need to look at some confounding factors that constituted limitation to the study in order to encourage future study that addresses all the issues raised.

The reference was done but very scanty.

AUTHORITY

The authors of the study are:

- Dr. Leana Shoryle Wen, a Harvard trained emergency physician, a Rhodes scholar and writer. She wrote “When Doctors don’t listen, how to avoid misdiagnosis and unnecessary test. At an early age she made a name for her numerous studies and books.
- John Oshiomogho – Dr. Oshiomogho is a research assistant, department of medicine, University of Catlgary.
- George Eluwa – A physician, Deputy Director of Operation at Research Population Council in Abuja Nigeria.
- Anne P. Steptoe – She is the Software Development Manager at the Weather Network.
- Ashley F Sullivan – A Dentist.
- Carles A. Camargo – An associate Professor of Medicine and Epidemiology at Harvard Medical School and an Emergency Physician at the Massachusetts General Hospital.

The team used internet based procedure and hence an extent in computer science. It also involved both local (Nigeria based) and international researchers and this gave a lot of the credibility to the study. The study has high volume references and citation as shown in the net.

ACCURACY

While anecdotally and via other authors (2, 3), it is known that there are poor emergency departments in Nigeria. This is expected in a country of over 150 million persons, yet no Emergency Medical Services, no Emergency Medical Residency and Emergency Medicine is not yet recognized as a discipline. Hence, both at national, state and local government level emergency care is unacceptably low.

While the study concludes along this state of affairs in emergency medicine, the study was not elaborate enough to have come out with this result. It looks like an exaggerated state of affair and conclusion.

First the population sample is too small to generalize. Out of over 60 tertiary health institutions in Nigeria, only three are in Abuja hence this cannot mirror the emergency medicine situation in Nigeria. The study depended on the opinion of the staff who may paint a gory picture due to their frustration with their individual management. Nigeria witnesses average of 2 national industrial action involving the doctors each year. Hence a more observational and proactive study would have been more accurate.

The study concluded that there is brain drain and hence emergency physicians should be trained. Did the study confirm brain drain? Can't the brain drain also affect the newly trained emergency medicine physician? Hence that may not be the answer to the issue of brain drain.

However, the researchers admitted that the research is fret with many confounding factors but felt the study should at least spark off further research in addition to drawing attention of the government and health authorities to the deplorable state of our emergency departments.

PERIOD

This study characteristics and capabilities of emergency departments in Abuja Nigeria was accepted in September 2011 and published in November 2011. This is about 5 years. The question is has there been improvement in the emergency department and emergency medicine situation in Nigeria since this last publication. Are their newer studies that will supersede this?

In one of the later publications – (4) Federal Ministry of Health announced it has established a framework for the take off of the first paramedic school in Nigeria as a first step towards re-organizing and updating the nations emergency medicine and hence the emergency department. In a recent newspaper publication, the president of the newly established Society of Emergency Medicine Practitioners of Nigeria announced that the main objective of the society is to collaborate with the governments and ensure that the emergency departments are updated, emergency physician's residency is established and there is a national pre-hospital emergency medical service (EMS). With all these on, the state of the emergency department would have to be re-assessed to enable the system know what exactly needs to be added. Hence a lot would have occurred during the last 5 years.

RELEVANCY

I will consider this article on its relevance to the people of Nigeria and to the body of science. I will also consider this article as to whether the study objective and outcome was focused on during the discussion or whether the title of the study reflects on the body of the work, and the conclusions.

One major problem in West Africa is the escalating conditions of trauma injuries and other life threatening emergencies. The countries within these regions are fighting to reduce this burden. This study identified the problem of poor emergency departments including that of trained

physicians. Using the empirical data, the nation knows the direction to face and what remedies to apply. This study can also help other resource limited nations experiencing same trauma and emergency burden.

The study aimed at elucidating the nature and capabilities of the emergency department and the study focused on through the abstract, while designing the methodology, collecting the results and the discussions that followed. The analysis of data shows that there was deficient medical equipment, trained staff and high admission rate from the emergency department. These are consistent with the objective and call for immediate solution or further study.

OBJECTIVITY

While the study is quite relevant, I am not too sure it has same level of objectivity.

First there is no evidence that the emergency department staff who were administered with the questionnaire were blinded to the objective of the study.

Secondly they were asked to air their opening which could be highly subjective depending on their relationship with the management. If it is perceived that the information will get to the public, they would want to sound as if all is well but if it will determine assistance from the government and international body, then a picture of poor emergency department need is created.

The emergency department assessment should have started with the basic resuscitation and emergency care equipment and materials, such as oxygen, oxygen delivery mask, AEDs, BVM etc, rather than CT scan which is not up to 10 in the whole country. There is the WHO emergency department evaluation criteria that should have been used.

The conclusion on brain drain, training of emergency physicians are not direct reference from the data/result.

The study did not state the size of the hospitals if they are of same size, then the expectation for their emergency department will not be same. Since there are only 2 tertiary health institutions as I mentioned earlier means some of the emergency departments considered must be small or glorified primary centres. Hence using CT scan is a measure will not give good result. Given it convenient sampling was used, it may still give a questionable conclusion as was done.

STABILITY

Because of the situation in West Africa due to the nations inability to recognise emergency medicine as an important discipline, progress in emergency care will be very slow. Consequently the result of studies like this will be stable and be referenced for a long time before appreciable changes can come on board.

Moreover a study like this will be needed to let the health authorities who have been complacent with emergency health issues to understand that all is not well and that actions has to be taken immediately to address the emergency care issue.

ANALYSIS OF GRAPH/TABLE/FIGURE

It shows that 24 out of 29 emergency departments responded median annual visit is 1500 per emergency department or 54 emergency department visits per 1000 population.

75% of the respondents affirmed that most of their patients do not come by ambulance (20% come by ambulance).

38% of emergency department typically have their patient stay less than 1 hour while 25% report they usually stay over 6 hours in the emergency department.

In 40% of the emergency departments, more than 40% of all emergency department attendants are admitted.

In 21% of the emergency departments (5EDs) doctors were physically present all through 24 hours.

In the remaining 19 emergency departments who did not have 24 hours coverage, doctors were available from within the hospital in 67% hence covering the 24 hours.

In 83% of the emergency departments there was a 24 hours laboratory service available.

Hence the analysis was quite consistent and objective. One would have expected that the authors would discuss the absence of overcrowding and its negative impact on the emergency department performance as it happens in US and other developed countries. Discussion should have touched non patient delay in majority of the emergency departments as patients are treated under 1 hour in the rate of admission from the emergency department is alarming and this is not agreement with those of other countries such as 7.3% in Saudi Arabia (6)

CONCLUSION

This article is quite relevant to the present poor emergency care system in Nigeria. The authorities needed some empirical data to re-enforce the need for their intervention. The authors did some good jobs except that the objectivity was weakened and their final conclusion did not quite agree with the results/data received.

They would have concluded, looking at issues like deficiency of basic emergency department equipment, high admission rate from the emergency department, poor attendance to the emergency department and how to ensure that medical personnel are present 24 hours, though they proffered solution to this (7).

Why I agreed with the author that USA differs from Nigeria by volume of attendance and number of emergency departments (8).

I do not agree that the emergency department location and layout in Nigeria do not differ from that of USA markedly (9).

Going through internet shows very high citation of this article indicating its strategic importance to both the health authorities and researchers.

REFERENCES

1. Bentham G. Proximity to hospital and mortality from motor vehicle traffic accidents. *Soc. Med.* 1986; 23(10):1021-6
2. Emergency care in Nigeria. Who Medicine Network. The National ED inventories survey instrument <http://www.emnet-nedi.org> (accessed 10 Jul 2011)
3. Iribhegbe PE, Osemwenkha EA, Imarengiaye CO, Elusoji SO: Trauma Preparedness in Nigeria: A Questionare Survair; *Sahel Medical Journal*; 2007 10(3) 97-102.
4. Leadership news paper:- Nigeria Commences Paramedics Technology in Tertiary Institutions: extracted from www.leadership.ng/blogspots/health-matters/364585/Nigeria/commences-29/9/2014
5. Solagberu BA, Adekunye AO, Ofoegbu CPK, Udofia US, Abdurhaman LO, Taiwao JO. Epidemeology of Trauma deaths. *WHJM* 2003; 22:177-181.
6. Wen Ls, Char Dm, Existing Infrastructure Centre for the delivery of emergency case in the Post-conflict Rewanda Africa *Emergency medicine* 2011. (1) 57-61.