Neurosurgery in Nigeria II – Evaluation of the Perceptions of Health Personnel after the Commencement of Services in a new Centre

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SUMMARY

Background: Prior to the commencement of neurosurgical services in our new centre, in 2006, the awareness of and perceptions about this specialty amongst the health workers were studied. One year after, having experienced first-hand the activities of the unit, these perceptions were again re-evaluated amongst the same workers to determine the impact of the unit on the opinions about the specialty.

Methods and Materials: This study was carried out with a questionnaire designed with the 5-point Likert scale, and the respondents comprised of doctors, nurses, students, paramedics and administrators, randomly selected. The same questionnaire was used in the first study but was slightly modified for the present study.

Results: Out of 400 questionnaires distributed randomly, 342 were completed and returned. Most of the respondents 282 [82.5%] were aged 20 – 30years, mostly students 220 [64.3%], and majority 318 [93%] have heard of neurosurgery prior to the establishment of our unit. The service need was rated very necessary by most 286[83.6%], availability of services in Nigeria rated inadequate by 177 [51.8%], and the quality of services rated fair 155[45.3%]. The services in our centre were rated fair 138 [40.4%] and lack of equipment/facilities was adjudged the greatest hindrance to practice 216 [63.2%], and majority 289 [84.5%] strongly recommended that services continue.

Conclusion: Neurosurgical services are still significantly inadequate in Nigeria, and though the establishment of new units has positively changed the perception of health workers about the specialty, provision of more manpower and modern facilities remains the major challenge.

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INTRODUCTION

In 2006, neurosurgical services were introduced in one of Nigeria's tertiary health institutions. The institution, located in one of the country's six geopolitical zones is a 350-bed facility offering specialist care and training in different disciplines.

With just 15 actively practising neurosurgeons for the country's 150million population, a ratio of 1neurosurgeon to 10million citizens, contrary to the World Health Organization [WHO] recommendation of 1:200,000, the Nigerian situation still falls far short of the African average of 1:1.2million [1,2]. In the previous study done before the commencement of services in our centre, neurosurgery in Nigeria was described as endangered species, thought to be a result of bad and corrupt government policies that decimated the nation's social infrastructure over the years, leaving much of our wealth in the hands of a few individuals, while the majority of our citizens wallow in hunger and disease with a complete erasure of the middle social class[3,4,1]. It was in the midst of all these that Nigeria's budding neurosurgical specialty, which started in 1962, 39years after South Africa's, all but totally collapsed, leaving our hospitals and medical schools in complete deprivation[5,3]. Worse still, Nigeria's per capita public spending on health ranged from US$2 – $5, scandalously below the prescription of at least US$34 for low income countries round the world[3].

Computerized tomography [CT] and magnetic resonance imaging [MRI] - the launch pads of modern neurosurgery - are still not readily available in all the centres, and even when available, Nigeria's notoriously epileptic power supply has led to frequent breakdowns and the abandonment of these procedures, yet Nigeria is the world's 7th largest exporter of crude oil[6]. On the backdrop of these deficits lie the roots of the appalling state of neurosurgical services in the world's largest black nation, whose average life expectancy has dropped from 51years in 1992 to 43.4years in 2004[7].

Prior to the commencement of services in our new unit in 2006 the awareness of and perceptions about neurosurgery by health workers in the institution were evaluated in a questionnaire based study. One year after the introduction of neurosurgical services and lectures, a repeat study was undertaken to verify whether the new unit had influenced these variables. The findings would form part of the evidence to prove the perceived high value of neurosurgery in Nigeria's health care system and the need to protect the future of this rare specialty, as is the practice for all the world's endangered species.

MATERIALS AND METHODS.

The study was carried out with a questionnaire designed with the 5-point Likert scale, and the respondents comprised of doctors, nurses, students, paramedics and administrators. It had three patterns of rating viz.

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1] Very Good, Good, Fair, Poor, Very Poor
2] Very Adequate, Adequate, Fair, Inadequate, Very Inadequate
3] Strongly, Desirably, Probably, Not Necessary, Totally Useless

The questionnaire which was only a slight modification of the one used in the first study a year earlier, was designed to ascertain the observations and perceptions of the respondents in view of their new experience.

RESULTS

Out of 400 questionnaires, distributed randomly 342 (85.5%) were completed and returned. Most of the respondents 282 [82.5%] were aged 20 – 30years, followed by 31 – 40years 40 [11.7%], 41 – 50years 11 [3.22%] and >50years 3 [0.88%], and males were 183 [53.5%], and most 318 [93%] have known or heard of neurosurgery prior to 2006, the year of establishment of our unit. The medium of first knowledge of neurosurgery was mostly the class lecture 157 [45.9%], followed by personal reading 107 [31.3%]. The service need was rated very necessary by 286 [83.6%], and necessary by 46 [13.5%].

Availability of services in Nigeria was rated inadequate 177 [51.8%], very inadequate 82 [24%] and very adequate 6 [1.75%], whereas quality of services was rated fair by 155 [45.3%] and very good 5 [1.46%], based on observed facts 249 [72.8%], personal experience 36 [10.5%], presumption 23 [6.73%], hearsay 18 [5.26%] and mass media 11 [3.22%]. The perception of outcome from neurosurgical treatments was rated good 157 [45.9%] and very poor 3 [0.88%], and the rating of services in our centre in the first year was mostly fair 138 [40.4%], followed by good 132 [38.6%], and very poor 3 [0.88%].

Lack of equipment/facilities was adjudged by 216 [63.2%] as the greatest hindrance to practice, followed by manpower 98 [28.7%], even though most 156 [45.6%] assessed the future of practice in our institution as good. Majority 289 [84.5%], still strongly recommended that services continue in our institution and 5 [1.46%] did not respond. They suggested the adoption of policies to encourage the new unit, and provision of adequate facilities and manpower 276 [80.7%], as the surest way of consolidating and improving on our services.

Table 1. Comparing the responses before and after the commencement of services

Variables	Very Good	Good	Fair	Poor	Very Poor
Quality of Service					
2006	1.83%	26.2%	39.6%	36.6%	7.32%
2007	1.46%	18.1%	45.3%	27.2%	5.26%
Treatment Outcome					
2006	15.9%	43.9%	31.7%	6.71%	1.83%
2007	20.5%	45.9%	28.9%	3.22%	0.88%
Availability					
2006	1.83%	4.88%	14.0%	50.6%	26.8%
2007	1.75%	5.51%	17.8%	51.8%	24.0%

DISCUSSION

When compared to the previous study carried out prior to the commencement of our services, the present 85.5% response rate closely correlated with the previous 82% [164 out of 200]. Also, the age and career distributions were similar in both studies, as majority of the respondents were aged 20 – 30years and most were students, but the sex distribution varied, with slightly more males in the present study as against more females in the previous one. The age range of most respondents is very desirable since there is a greater likelihood of finding amongst them the representative opinion of persons who were born into the period of Nigeria's infrastructural collapse following years of corrupt national governance.

As in the previous study, most respondents had fore-knowledge of this specialty, prior to 2006 when we established the unit. And though majority in both studies heard of neurosurgery for the first time in the class lecture, the worrisome situation of 31.3% having their first exposure to the specialty by personal reading, instead of class lecture, still persisted just like in the previous study. This, as was suggested then, arose most likely from the unfortunate situation where only 8 of the 26 accredited medical schools in Nigeria currently offer formal neurosurgical teaching. Even though the specialty was rated very necessary in the provision of health care in Nigeria by most respondents, they still rated availability of services in the country as inadequate, and quality as fair. Outcome from treatment was rated good by most and yet, a significant number rated it a paltry fair, and these ratings corroborated the previous report. This appears to suggest that neurosurgical services in the country are, at best, average or sub-optimal, implying the need for an improvement in service delivery. This is further buttressed by the fact that most of the respondents were aware of other existing neurosurgical centres in Nigeria and thus, did not form their opinion based solely on the local situation in our own centre. They clearly stated that their impression was mainly premised on observed facts. When, however, quality of services was evaluated, fewer respondents in the present study rated it poor and very poor compared to the previous study, suggesting probably, an improved outlook following the establishment of two other centres around the country in the 12 months following the commencement of services in our centre.

Interestingly, fewer respondents rated outcome as poor and very poor respectively, than previously. This improved rating was, possibly, informed by observations from the new unit since it could be noted that services in our institution were rated fair and good by most respondents. With this total number rating our services as average or above, the respondents appear to give an impression that our centre is positively contributing to the current outlook of the specialty. They advisedly opined that services could be consolidated and even optimized if inadequate facilities/equipment – the greatest hindrance to optimal service delivery - is urgently addressed. If nothing else, at least any negative impressions nurtured by the respondents prior to the commencement of services, was not further reinforced by the emergence of our new unit, instead, the impressions of the respondents appear to have been positively modified. This is reflected in more respondents rating the outcome from treatment as good, and fewer rating of quality and outcome as poor or very poor, respectively, compared to the previous report.

To consolidate and improve on the established services, most respondents opined that the introduction of novel policies and incentives to encourage the new unit, provision of adequate modern facilities like computerized tomography scan and magnetic resonance imaging, and training and employment of more manpower should be the next thrust of the institution.

CONCLUSIONS

Neurosurgical services in their entirety are still significantly inadequate in Nigeria, and though the establishment of new units has positively changed the perception of health workers

about the specialty, the fact still remains that the introduction of novel incentives and policies to favour this rare specialty, along with the provision of more manpower and modern facilities are urgent recommendations to the government if the present status of the specialty would improve in Nigeria.

REFERENCES

1. Emejulu J. K. C. Neurosurgery in Nigeria – An evaluation of the perception of health personnel in a new centre and a comparison of the Nigerian situation with that of other African states. Accepted for publication. *Nig J Clin Pract* 2008.
2. El Khamlichi A. African Neurosurgery – Part II. Current state and future prospects. *Surg Neurol* 1998; **49:** 342 – 7.
3. WHO Country Cooperation Strategy: Federal Republic of Nigeria 2002 – 2007, Health Financing, Regional Office for Africa, Brazzaville pp1–29.
4. United Nations Development Programme, Human Development Indicators 2006 – Country Fact Sheets-Nigeria.htm.
5. De Villiers J. C. Perspectives in international neurosurgery: neurosurgery in South Africa. *Neurosurgery* 1983; **13:** 609–10.
6. Alexander's Gas & Oil Connections, News & Trends:Africa, vol 10, #15, 2005 (http://www.gasand oil.com/goc/news/nta 53379.htm).
7. Culturelink. Cultural Policy in Nigeria.htm; IMRO/Culturelink 1996.[8]