Management of Epilepsy: Knowledge and Practises of Nurses in Buea Regional Hospital, South-West Region of Cameroon

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ABSTRACT

The study was geared towards assessing the knowledge and practices demonstrated by nurses in the management of epilepsy in the Buea Regional Hospital in the South-West Region of Cameroon. Most often, patients are not well attended to at the onset of crises. This inevitably complicates the seizure and may even lead to death. In order guide us in our study, two objectives were formulated and we developed a structured questionnaire there from. A total of fifty nurses from various ranks and categories were interviewed on the subject under study. Their responses were analysed through descriptive statistics and presented in form of charts and tables. The results revealed that more than half of the nurses were not university graduates; consequently, about 70 percent of the interviewees did not define epilepsy correctly. Sixty percent of them attributed the cause of the disease to malaria and meningitis and only 30 percent could identify the types of seizures. This made more than one third (36 percent) to still demonstrate wrong reactions when faced with a case of epilepsy. At least two third could administer the proper medication patients with the pathology. We could note that much is still to be done in raising the level of knowledge of nurses on the management of epilepsy and suggest that hospital management ensure their regular upgrading and retraining especially on non-communicable chronic diseases.

Keywords: Management, epilepsy, nurses, hospital

INTRODUCTION

Epilepsy is a common chronic neurological disorder that affects people of all ages, race and social class worldwide. It is characterized by a tendency for recurrent seizures and is defined by two or more unprovoked seizures (Wikipedia, 2011). Seizures are abnormal movements or behavior due to unusual electrical activity in the brain. (Jon Glass, 2007). They are transient signs and or symptoms of abnormal excessive or hyper synchronous neuronal activity in the brain. Common causes of epilepsy in adults include: brain tumors, hereditary factor, alcohol withdrawal, head injuries, drug abuse (cocaine), meningitis, malaria, eclampsia, low blood sugar just to name a few. The most common cause of epilepsy in children is febrile illness i.e. infections associated with high fever. One of the main reasons for the higher incidence of epilepsy in developing countries is the higher risk of experiencing a condition which can lead to permanent brain damage. These conditions include meningitis, malaria, pre and post natal complications, head trauma, febrile illnesses and malnutrition (Photious Coutsoukis, 2008). Also the belief widely held in developing countries that epilepsy is caused by supernatural powers keeps patients away from seeking medical treatment, rather they belief in getting treatment from witch doctors. According to WHO, around 50 million people worldwide have epilepsy with nearly 90% of the people with epilepsy found in developing regions (WHO, 2007), this indicates that the disorder necessitates more attention in our milieu. The symptoms of convulsion range from mild to severe depending on the type and extent of convulsion. Convulsions originate from disorganized and sudden electrical activity in the

brain. Hence the symptoms are related to impairment of the normal coordinated brain activities such as: those involving the contraction and relaxation of different muscles of the body and the activities of the central nervous system (Heller, 2009).

The symptoms are characterized by:

i. Brief blackout followed by period of confusion
ii. Drooling or frothing at the mouth
iii. Eye movements
iv. Grunting and snorting
v. Loss of bladder or bowel control
vi. Sudden falling
vii. Teeth clenching
viii. Temporary halt in breathing
ix. Uncontrollable muscle spasms with twitching and jerking limbs
x. Unusual behavior like sudden anger, sudden laughter, or picking at one's clothing

The person may have warning symptoms before the attack, which may consist of: (Kahan & Smith, 2004)

i. Fear or anxiety
ii. Nausea
iii. Vertigo
iv. Visual symptoms (such as flashing bright lights, spots, or wavy lines before the eyes)

Moreover, even though epilepsy responds to treatment about 70% of the time, about three fourths of affected people in developing countries do not get the treatment they need owing to lack adequate knowledge by health personnel to facilitate diagnosis, treatment and follow-up (Photious Coutsoukis, 2008). Proper management of this disorder entails that epilepsy not be understood as a single disorder, but rather as syndromic with vastly divergent symptoms but all involving episodic abnormal electrical activity in the brain (en.wikipedia.org/wiki/).

Moreso, seizures are not only provoked by epilepsy, non-epileptic seizures results from psychological issues such as stress. CNS infections can predispose seizure attacks too. Central nervous system infections are common causes of epilepsy in tropical areas, where many developing countries are concentrated (Wikipedia, 2011). Although researches have been carried out on epilepsy and treatment available, the management of this health problem remain poorly accessible to the most needed and affected individuals, especially as it concerns nursing practices. This study therefore seeks to know the practices of nurses in the management of patients with seizures. In order to guide us, the objectives formulated will consist of:

1. Determining nurses' knowledge on the classification of seizure attack,
2. Assessing nurses' interventions or approaches in the management of epilepsy.

This study involved all the nurses with at least 9 months of working experience practicing in Buea sub-division irrespective of their categories or rank. It was carried out in the Buea Regional Hospital Annex and Mount Mary hospital. These hospitals are both located in Buea sub-division, Fako Division of the South West region and they are the largest in Buea town. They have different units including: the emergency unit, the surgical unit, pediatric unit, theatre unit, medical unit and maternity unit. This study carried out was a descriptive study using a cross sectional survey method to assess the knowledge and practices of nurses in the

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management of epilepsy. The study targeted all nurses who were willing to participate and express themselves. A convenience sampling of 50 was adopted. The instrument used for the study was the structured questionnaire consisting closed ended questions was used to generate data. The questionnaire was structured into three sections following the objectives of the study namely demography analysis, nurses knowledge on seizures/epilepsy, management of epilepsy. All administrative authorizations were obtained both from appropriate authorities. Data were analysed using descriptive statistics as, basic frequency tables and charts.

RESULTS

Data collected from the administration of questionnaires were analysed and presented as follows:

Table 1: Distribution of Socio-professional characteristics of participants

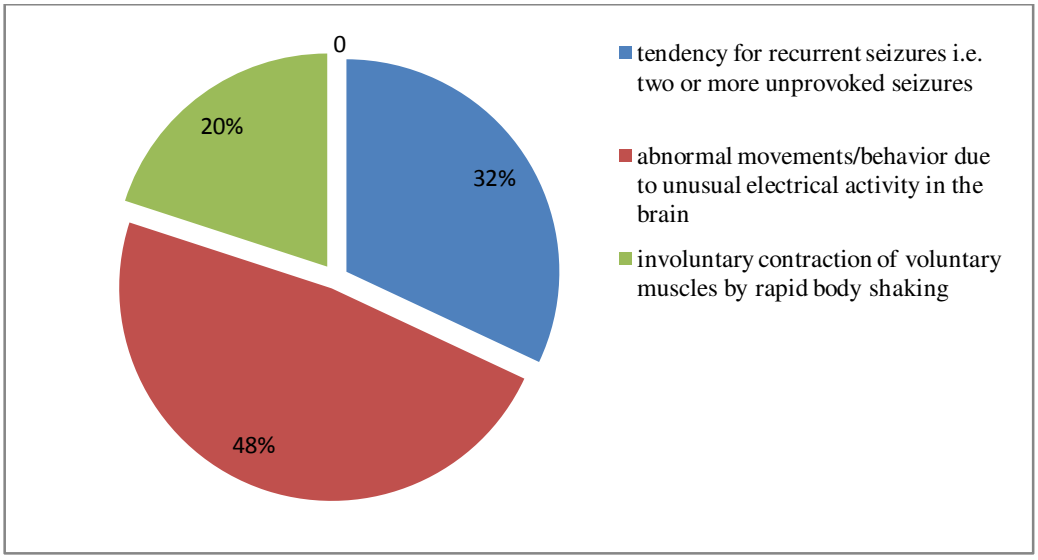
Sex	*Frequency*	*%*
Male	10	20
Female	40	80
Total	50	100
Nurses' qualification		
Qualification	*Frequency*	*%*
Nursing aid	19	38
Nursing assistant	12	24
State registered nurse	11	22
Degree nurse	8	16
Total	50	100
Nurses' working experience		
Working experience	*Frequency*	*%*
9 – 12 months	8	16
1 – 3 years	17	34
3 – 5 years	16	32
>5 years	9	18
Total	50	100

According to table 1, 80% of the participants were female, while 20% were male. This confirms a universal fact that nurses are more of women than men.

Information on nursing qualification, majority of nurses (38%) working in both hospitals were nurse aids, which is the lowest category of nursing qualification, hence there may be limitation both in knowledge and skills when it comes to managing a patient with seizures.

Results on working experience revealed that 66% of the nurses had a working experience between 1 and 5years, hence had witnessed seizure attacks and may even have had opportunities to manage them.

Nurse's knowledge on seizures/epilepsy



Fgure 1: Knowledge of participants on the definition of epilepsy

The result of this study indicates that 70% of nurses (figure 1) do not know the definition of epilepsy; they are unable to differentiate between a patient with epilepsy and those with mere seizures. As a result patients with this disorder may go untreated, consequently the high prevalence of epilepsy in our society and developing countries as a whole. This ties with statistics presented by WHO (2007): "about three fourths of affected people in developing countries do not get the treatment they need owing to the fact that health personnel lack adequate knowledge to facilitate diagnosis, treatment and follow-up. More so, epidemiological studies published by Sander *et al.* (1987) states that diagnostic accuracy is a particular problem in epilepsy as seizures are a symptom of diverse underlying aetiologies that normally do not have any physical manifestations. Consequently a definitive diagnose of epilepsy should only be made after an extended period of follow up.

Table 2: Distribution of nurses who have witnessed a seizure attack

Answer	*Frequency*	*%*
Yes	41	82
No	9	18
Total	50	100

Table 2 shows that 82% of the participants had witnessed a patient having a seizure attack and most of them have had to intervene in managing the attack. Hence they should have knowledge on this disorder.

Table 3 shows proposed causes of epilepsy: 10 nurses proposed head injury or illness, 30 nurses proposed infections such as malaria and meningitis, 15 nurses said epilepsy is hereditary and 5 said the cause is unknown. This implies that people's perception about witchcraft been the cause of epilepsy have been changed over the years. Hence nurses should

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be able to sensitize patients to refrain from visiting witch doctors when they have crises, rather they should seek medical treatment.

Table 3: Knowledge of respondents on causes of epilepsy

Answer	*Frequency*	*%*
Head injury or illness	10	20
Infection (malaria, meningitis)	30	60
Hereditary	15	30
Unknown	5	10
Witchcraft	0	0

Significant enough, all nurses attested to the fact that epilepsy is never caused by witchcraft.

Table 4: Showing responses to the pathophysiology of a seizure

Answer	Frequency	*%*
True	44	88
False	6	12
Total	50	100

Table 4 indicates that 88% nurses (i.e. 44 out of 50) are familiar with the pathophysiology of seizures and 12% do not know the pathophysiology of seizures.

Management of epilepsy

The results from this section of the study indicate that most of the participants (nurses) are familiar with the approaches in the management of seizures/epilepsy.

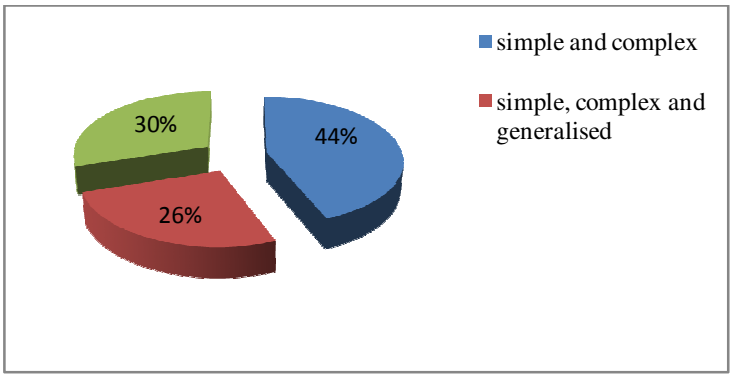

Figure. 2: Knowledge nurses on the types of seizures

Figure 2 indicates that only 30% of nurses have knowledge on seizures/epilepsy. In as much as the majority of nurses have witnessed and managed patients with seizures, they do not know the classification of seizures. They are unable to differentiate between partial seizures and generalized seizures. This proves that nurses have limited knowledge on seizures, hence would face difficulties in management or would wrongly intervene in the management.

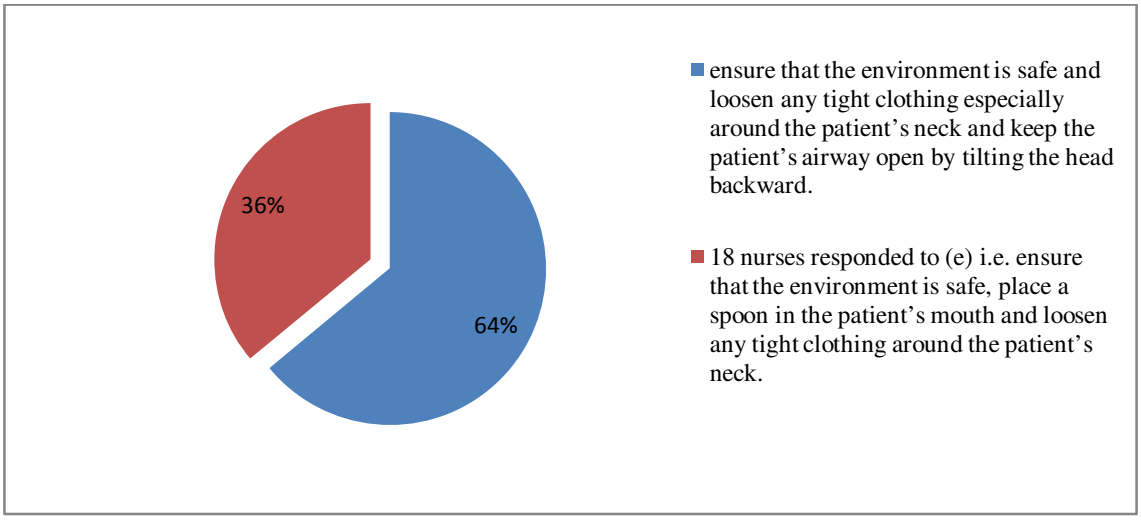

Figure 3: Responses of nurses on first aid measures in case of seizure attack.

As shown on figure 3; 64% of the participants (i.e. 32 out of 50 nurses) know the right first aid measures to be taken during a seizure attack, while 36% (i.e. 18 nurses) still adopt the malpractice of placing a spoon in the patient's mouth with the rationale of preventing swallowing of the tongue which is more harmful as it can damage the patients jaw, tongue or teeth.

Medications used in the management of epilepsy.

Table 5: Attitudes of nurses on medication and routes of administration of medicine for epilepsy crises

Medication Given	*Frequency*	*%*
Anti-convulsive medications	5	10
Anti-convulsive and sedative medication	14	28
Anti-convulsive, anti-pyretic and sedative medications	31	62
Total	*50*	*100*
Route of administration	*Frequency*	*%*
Rectal route	5	10
Intravenous and rectal routes	32	64
Intravenous, buccal and rectal routes	13	26
Total	50	100

Table 5 indicates that 62% of nurses i.e. (31 out of 50) know the various medications (anti-convulsant, anti-pyretics and sediative medications) used in the management of epilepsy. Only few (26% of the nurses) know the various routes of administration of anti-convulsant medications (intravenous, buccal and rectal routes).

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CONCLUSIONS

Considering the findings, especially on the knowledge and attitudes of nurses on tackling epilepsy, much is still to be done on the identification of seizure crises and their effective or appropriate management by these health care providers in the Buea regional hospital. Thus there is need for nurses to upgrade their knowledge on the management of this disorder and be exact in providing interventions so as to reduce complications that may result from the attacks. Also, they should educate and empower patients to be able to identify the onset of the attack(s), so as to protect themselves or if possible encourage client to wear a medical alert tag.

REFERENCES

[1] Sander, J.W., Scott, R.A.& Lhatoo, S.D. (2001). The treatment of epilepsy in developing countries: where do we go from here? *Bull World Health Organ,* 79, pp. 344–351

[2] World Health Organization. (2007). The global campaign against epilepsy—out of the shadows. Geneva.

[3] Wang, W.Z.,Wu, J.Z., Wang, D.S.,Dai, X.Y., Yang, B.,Wang, T.P. et al., (2003). The prevalence and treatment gap in epilepsy in China *ILAE/IBE/WHO Study Neurol*, *60* (5), pp. 1544–1545

[4] Gourie-Devi, M., Satischandra, P. & Gururaj, G. (2003).Epilepsy control program in India: a district model, *Epilepsia,* 44 (Suppl 1), pp. 58–62

[5] K.C. Rajbhandari(2004). Epilepsy in Nepal. *Canadian Journal of Neurological Sciences, 31* (2), pp. 257–260.

[6] Meinardi, H., Scott, R.A., Reis, R.&Sander, J.W. (2001) The treatment gap in epilepsy *Epilepsia*, 42, pp. 136–149

[7] Ndoye N. F. Etude(2003). De prévalenceet de l'échappementthérapeutique de l'épilepsie à Pikine. Thèse de l'Université Cheikh Anta Diop De Dakar; 2003.

[8] Sow, A. D. (2003) .Connaissance de l'épilepsie, attitudes etpratiques de la population dans le district sanitaire de Pikine. Thèse de l'Université Cheikh Anta Diop De DAKAR.