



The Knowledge, Attitude and Perception towards Epilepsy amongst Health Workers in a Tertiary Hospital in Uyo, Southern Nigeria

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Authors' contributions

This work was done in collaboration between all authors. Author BCE designed the study, wrote the first protocol and did the literature searches. Author EEA contributed in the second draft and formatted the manuscript while author UEE carried out the statistical analysis. All the authors approved the final draft.

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ABSTRACT

Background: Epilepsy is usually stigmatized in the developing world because of the poor knowledge. The health workers in Nigeria are generally regarded as the custodians of medical information irrespective of their designation in the health care institution. Their opinion in health issues is generally coveted hence they majorly influence the attitude and health seeking behaviour of their respective communities.

Aim: The aim of the study was to study the Knowledge attitude and perception towards epilepsy amongst health workers in a tertiary hospital. We compared the knowledge and perception of doctors to that of other health service providers. We also made a comparison of the health service providers (HSP) with that of the health management and support workers (HMSW).

Study Design: The study is a prospective cross sectional survey.

Place and Duration of the Study: The study was carried out in University of Uyo Teaching Hospital. The data was collected within six months (September 2014 to March 2015).

Methodology: The participants were health workers in University of Uyo Teaching Hospital. The

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study is a questionnaire based study. We distributed 600 questionnaires to the participants. The questions explored the knowledge of etiology (perceived and medically proven). Their attitudes and perception to persons with epilepsy was also explored.

Results: There were 477 respondents in this study. The HMSW were more likely to believe that epilepsy was due to evil spirits, witches and excessive consumption of palm oil than the HSP ($p < 0.001$). Five (2.45%) of the HSP believed epilepsy should not be treated in the hospital compared to the HMSW. The HSPs were more likely to relate with a PWE than the HMSWs.

Conclusion: There is still a huge gap in the level of knowledge, attitude and perception of health workers towards especially the HMSW.

Keywords: Attitude; epilepsy; health workers; knowledge; perception.

1. INTRODUCTION

Epilepsy is believed to be a sacred or spiritual disease in the African society [1]. This belief has greatly influenced public attitude towards epilepsy making it a dreaded disease. The result is that persons with epilepsy (PWE) are misunderstood, stigmatized and often ostracized. One common belief is that epilepsy is contagious and that it can be spread through contact with urine, saliva, flatus, or faeces excreted at all times or during a convulsion [2-5]. The net effect of this wrong belief is the isolation and unwillingness of witnesses to touch and protect the patient from injury during a seizure. It is also believed that epilepsy is transferable from one person to another by various routes. This leads to courtesy stigma where relatives, friends and companions of persons with epilepsy are stigmatized as well [5]. In view of the foregoing, most patients suffering from epilepsy in African countries prefer anonymity because of the stigma attached to the disease [6].

The health seeking behaviour and care of epilepsy is therefore greatly impacted by these traditional African beliefs. Consequently, most persons with epilepsy will rather seek care elsewhere than western type hospitals. As much as 80% of the population of a developing country like Nigeria live in rural areas and lack access to western-type hospitals but rather seek care from traditional healers, churches and others [7]. In epilepsy however the lack of access is not the sole ground to seek alternate care given that even urban dwellers and the educated also seek care from traditional healers and churches. In fact, a study amongst medical students in Nigeria showed that 47.93% of pre-clinical and 27.93% of the clinical students will seek help from the church [8]. The authors of this paper have a patient who was redirected from an urban government hospital (secondary care) to the traditional healer by some health workers. The patient's father was told by these health workers

(records officers) that epilepsy cannot be treated in the western-type hospital.

The WHO defines health workers to be all people engaged in actions whose primary intent is to enhance health [9]. Two types of health workers have been distinguished. The first group comprises people who deliver services whether personal or non-personal. These are called "Health Service Providers" (HSP). The second group covers people not directly engaged in the direct provision of services under the term "Health Management and Support Workers" (HMSW) [9]. The health service providers (HSP) therefore comprises: the doctors, nurses, pharmacists, physiotherapists, laboratory scientists, dieticians and the community health extension workers while the Health management and support workers (HMSW) are the administrators, engineers, computer scientists, accountants, security, research officers, record officers, secretaries, drivers, laundry, sanitation and the others [9].

In Nigeria, health workers are some of the highly educated and influential persons in the community. They are usually presumed to have a superior knowledge of diseases. This is so irrespective of the designation of the health worker or his/her job description. The perspective of health workers therefore on any health issue will significantly impact on the population in general.

We carried out this study amongst the health workers to know the knowledge, attitude and perception towards epilepsy. Knowing that health workers are expected to be knowledgeable about an array of diseases and their opinions are well-regarded, this study will inform us on what information they release to the general public. Health workers may also be able to provide us with insights into how people with epilepsy are viewed by their families, their communities and the society at large. What more, prior knowledge,

attitudes, beliefs, and practice surveys conducted in Africa have been directed at the general public, students, or teachers [2-4,10,11]. There have been very few on health workers [12]. The knowledge gained from this study will be used in the planning public enlightenment campaigns amongst other health workers in the state. Having being educated about epilepsy, these health workers will be empowered to teach others in their families, communities and society as a whole.

2. METHODOLOGY

This was a cross-sectional survey carried out in the University of Uyo Teaching Hospital, Akwa Ibom state, Nigeria. It is located in the coastal South-Southern part of the country. The State is bordered on the east by Cross River State, on the west by Rivers State and Abia State, and on the South by the Atlantic Ocean and the southernmost tip of Cross River State. The major cities in the state are Uyo, Ikot Ekpene, Eket and Oron. Uyo is the capital city. University of Uyo Teaching Hospital is the only tertiary and referral center in the state. The hospital also receives referrals from neighbouring states like Cross Rivers, Abia Imo and Rivers states.

The study population was made up of workers in the hospital. Sampling method used was the convenience sampling. Health workers involving both categories noted above were studied. Questionnaires were distributed to the participants while at their duty posts. The questionnaire had a total of twenty nine questions. The first fifteen questions were on knowledge of persons with epilepsy, etiology and contacting epilepsy. The later fourteen questions are on attitude to persons having seizures and relating with persons with epilepsy. All the participants who gave their consent to willingly participate were included in the study. All the persons who declined to participate in the study were excluded.

2.1 Analysis of Result

Categorical data was presented as frequencies and percentages and the Pearson's Chi – square used to compare proportions for the two groups of respondents. A p – value of <0.05 was deemed statistically significant. All the analysis were performed using STATA 10, StataCorp, Texas, USA. The Fischer's exact test was used instead of the chi- square in cases where the cells were five or less.

3. RESULTS

3.1 Response and Demography

A total of 600 questionnaires were distributed. Five hundred and twenty (520) were retrieved. Four hundred and seventy seven (477) were properly filled. The response rate was 91.54%. There were 187 (40.39%) males and 274 (59.63%) females respondents. Some of the participants did not indicate their sex. Two hundred and ninety five (58.07%) were married, 202 (39.76%) single, 8 (1.57%) widowed and the remaining 3 (0.59%) were divorced. The age range was 10-65 years. The mean, median and mode age group was 30-39. There was no difference observed in the demography of those who refused to participate and the participants. Most of them said they were busy. Some declined for lack of interest. The non-respondents cut across all categories hence their lack of participation is not expected to influence the eventual outcome.

The participants were all educated. As many as 392 (80.16%) persons had a tertiary education, 95 (19.43%) had a secondary education while only 2 (0.41%) had a primary education. Most of the participants; 419 (89.53%) were from Akwa Ibom State Nigeria. Fewer others were from neighbouring states viz Anambra, Cross River and Imo states. Most of the participants were of Ibibio ethnicity; 323 (75.47%), Annang 40 (9.35%), 26 Igbo (6.07%) 14 Oron (3.27%). The frequency table of the occupations of the participants is found in Table 1. There were 204 (serial numbers 1-8) classified as Health Service Providers (HSP) and 273(serial numbers 9-21) classified as Health Management and Support Workers (HMSW).

3.2 Knowledge of Epilepsy

Concerning, the knowledge of epilepsy, a total of 464 (97.68%) had heard of epilepsy while 11 (2.32%) had not heard of epilepsy. Most of the HSP (98.53%) had heard of epilepsy. This was comparable to the 97.05% of the HMSW who had also heard of epilepsy. There was no statistical difference between the two groups. Two hundred and fifty six (49.52%) of the respondents know at least someone with epilepsy while 261 (50.48%) did not know anyone with epilepsy. Of the 256, who knew, 102 (39.84%) did not acknowledge their relationship with the PWE while 154 (60.16%) acknowledged

the relationship. Twenty eight acknowledged the PWE as friends while thirty two acknowledged them as relatives. There were twenty eight respondents who knew the PWEs as patients and twenty five others knew them as neighbours. Some others: thirteen knew church members, seven knew colleagues, and five knew classmates while the rest knew PWEs who are not related to them in anyway.

3.3 Etiology of Epilepsy

On the etiology of epilepsy, the result showed that there were more of the HMSW who had the traditional African belief that epilepsy is caused by evil spirits, witchcraft and even excessive palm oil than the HSP. Meanwhile, there were more HSP who knew that epilepsy may result from medical causes like trauma, birth injuries, brain tumours and stroke. There was statistical difference between the two groups. The results are as shown below in Table 2. We further compared the knowledge of the medical doctors with that of other HSPs as shown in Table 3.

3.4 Contagiousness and Routes of Contact in Epilepsy

Concerning the transferability of epilepsy, 24 (11. 76%) of the HSP thought that epilepsy is

transferable as against 64 (23.44%) of the HMSW. $p < 0.001$. Eighty nine (43.63%) of the HSP considered epilepsy inheritable compared to 110 (40.29%) of the HMSW $P < 0.001$. Eleven (5.39%) of the HSP considered epilepsy contagious compared with 56 (20.51%) of the HMSW group. $P < 0.001$, 10 (4.05) of the HSP identified saliva as a route of transmission of epilepsy as against 70 (25.64%) of the HMSW $P < 0.001$. On the route of transmission of epilepsy, the HMSW identified saliva, blood, urine and faeces as route of transmission as against fewer HSP as seen in Table 4. Forty one doctors (41.41%) felt that epilepsy is inherited which compares favourably with 36 (45.57%) of the other HSPs, p value = 0.55. Two medical doctors (2.02%) considered epilepsy contagious as against 5 of the other HSPs. $P = 0.039$. No doctor felt that epilepsy could be contacted through the saliva or blood as compared to five (6.33%) of the other HSPs. $p < 0.01$. There was neither a doctor nor other HSPs who considered epilepsy could be contacted through faeces. Surprisingly, there were eight doctors (8.08%) and two other HSPs who felt that epilepsy could be contacted through urine. $P = 0.12$. Ninety doctors (90.91%) and sixty five other HSPs felt epilepsy is treatable, $p = 0.01$. Again, 98 (98.99%) doctors and 72 (91.14%) other HSPs said that epilepsy can be treated in the hospital. $P = 0.039$.

Table 1. Frequency of the occupation of the participants

S. no.	Designation	Frequency	Percentage	Cumulative frequency
1	Doctors	99	20.75%	20.75%
2	Nurses	54	11.32%	32.07%
3	Pharmacists	12	2.52%	34.59%
4	Physiotherapists	13	2.72%	37.31%
5	Laboratory scientists	9	1.89%	39.20%
6	Radiographers	8	1.68%	40.88%
7	Optometrists	2	0.42%	41.30%
8	Community Health Extension Workers (CHEW)	7	1.46%	42.76%
9	Administrators	96	20.13%	62.89%
10	Accountants	20	4.19%	67.08%
11	Computer scientists	14	2.94%	70.02%
12	Record officers	24	5.03%	75.05%
13	Health attendants	13	2.73%	77.78%
14	Ward attendants	15	3.14%	80.92%
15	Sanitation	27	5.66%	86.58%
16	Research officers	12	2.52%	89.10%
17	Porters	6	1.26%	90.36%
19	Security	7	1.46%	91.82%
20	Technicians	12	2.52%	94.34%
21	Others	27	5.66%	100%
	Total	477	100%	100%

3.5 Treatment of Epilepsy

Asked whether epilepsy is a treatable disease, 173 (84.80%) of the HSP were in the affirmative that epilepsy is treatable. Surprisingly, 11 (5.39%) of these HSP believe that epilepsy is not treatable while 20 (9.80%) did not know whether epilepsy is treatable or not. However, 162 (59.56%) of the HMSW believed epilepsy to be treatable, 30 (11.03%) considered it non treatable while as much as 80 (29.41%) did not know $P<0.001$. Still on treatment of epilepsy, 190 (93.14%) of the HSP knew that epilepsy can be treated in the hospital. Surprisingly, there were 5 (2.45%) of these HSP who think that epilepsy cannot be treated in the hospital and 9 (4.41%) others who did not know. On the other hand, only 140 (51.28%) of the HMSW believed epilepsy to be treated in the hospital. A whopping 98 (35.90%) persons do not believe that epilepsy can be treated in the hospital while 35 (12.82%) did not know $P<0.001$.

3.6 Reaction to a Person Having a Seizure

Again we asked about their reaction to someone having a seizure. Few HSP will run away; only 3 (1.47%) compared with 35 (12.82%) of the HMSW. The percentage of those who will put an object into his mouth is similar with no statistical difference. More of the HSP will turn the person on his side, loosen the material around his neck and speak reassuringly to him than the HMSW. However, a higher percentage of the HMSW will help the person to stand after a seizure (Table 5). The reaction of doctors as compared to other health service providers is shown in Table 6.

3.7 Relating Positively to a Person with Epilepsy

We also explored the participant's perception with many questions. We asked them whether they will marry or be friends with PWEs. We also asked the participants whether they will eat, trade or live with persons with epilepsy. Furthermore, the participants were also asked whether they will work with or employ PWEs. Finally in this section, we wanted to know if they are afraid of PWEs, should the PWE go to school and whether PWEs are normal. Their response is captured in Table 7. We also compared the response of doctors in relating with PWEs as compared with the other HSPs. This is represented in Table 8.

Furthermore, we asked the participants where they will take relatives with epilepsy for care. Once again there was a difference. One hundred and ninety eight (97.06%) of HSP will take the person to the hospital as against 222 (81.32%) of the HMSW $P<0.001$. Thirty four (16.67%) of the HSP will take the person to church as against 119 (43.59%) of the HMSW. $P<0.001$ Eight (3.92%) of the HSP will take the person to the traditional healer as against 61 (22.34%) of the HMSW $P<0.001$. No one from the HSP will hide the person while 12 (4.40%) of the HMSW will hide him. $P=0.005$. Surprisingly, 4 (1.96%) HSP will administer herbs to the PWE whereas as many as 45 (16.48%) of the HMSW will administer herbs. $p<0.001$. Finally, we asked them whether a woman with epilepsy can have children. Most of the HSP 201 (98.53%) while only 226 (82.78%) felt that same $P<0.001$. Concerning men, the numbers were similar 201 (98.53%) of the HSP as against 225 (82.42%) of the HMSW felt than a man with epilepsy can have children $P<0.001$.

4. DISCUSSION

We showed the knowledge, attitude and perception of epilepsy amongst health workers in our establishment. The response rate in this study is high (91.54%). This compares favourably with the 92% in a similar study in Zambia [12]. There were more Health management support workers (273; 57.23%) than the health service providers (204; 42.76%). This may be because the HMSW mainly have desk jobs and easier to be seen than the Health service providers. All the participants were well educated. As many as 392 (80.16%) persons had a tertiary education, 95 (19.43%) had a secondary education while only 2 (0.41%) had a primary education. This is much higher than that of the already high literacy rate of the country; the literacy rate in Nigeria is high (61.3%) [13]. This high literacy rate probably explains some of the respect and regard for health workers and their views on health issues. Most of the participants; 419 (89.53%) were from Akwa Ibom State Nigeria. Fewer others were from neighbouring states viz Anambra, Cross River and Imo states. Most of the participants were of Ibibio ethnicity; 323 (75.47%), Annang 40 (9.35%), 26 Igbo (6.07%) 14 Oron (3.27%). Their beliefs and perceptions represent the cultural beliefs of the indigenes of Akwa Ibom state and its environs.

Table 2. Knowledge of possible causes of epilepsy

	Evil spirit	Witch*	Palm oil*	Trauma	Birth injuries	Infections	Brain tumours	Stroke
HSP	9 (4.41%)	5 (2.45%)	1 (0.49%)	117 (57.35%)	130 (63.73%)	118 (57.84%)	137 (67.16%)	80 (39.22%)
HMSW	40 (14.71%)	32 (11.72%)	7 (2.56%)	56 (20.51%)	72 (26.37%)	69 (25.27%)	102 (37.50%)	58 (21.25%)
<i>P value</i>	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Fischer' exact test used*Table 3. Comparison of the knowledge of doctors and other health service providers**

	Heard	Evil spirit *	Witch *	Palm oil *	Trauma	Birth injuries	Infections	Brain tumours	Stroke
Doctors	98 (98.99%)	4 (4.04%)	1 (1.01%)	1 (1.01%)	72 (72.73%)	77 (77.78%)	72 (72.73%)	77 (77.78%)	52 (52.53%)
Other HSPs	77 (97.47%)	2 (2.53%)	1 (1.27%)	0 (0.0%)	34 (43.04%)	41 (51.90%)	36 (45.57%)	42 (53.16%)	19 (24.05%)
<i>P value</i>	0.43	0.001	0.001	0.001	<0.001	0.001	<0.001	0.001	0.001

Fischer's exact test*Table 4. Route of transmission of epilepsy**

	Saliva	Blood	Urine	Faeces *
	Yes	Yes	Yes	Yes
HSP	10 (4.90%)	6 (2.94%)	11 (5.39%)	1 (0.49%)
HMSW	70 (25.64%)	54 (19.78%)	24 (8.79%)	13 (4.76%)
<i>P value</i>	<0.001	<0.001	<0.001	<0.001

Fischer's exact test used*Table 5. Reaction to a person having seizures**

	Run away	Put something in his mouth	Turn him on the side	Protect him from injury	Loosen anything around his neck	Help him to stand	Speak reassuringly to him
HSP	3 (1.47%)*	77 (37.75%)	138 (67.65%)	189 (92.65%)	179 (87.75%)	69 (33.82%)	135 (66.18%)
HMSW	35 (12.82%)	109 (39.93%)	82 (30.04%)	184 (67.40%)	147 (53.85%)	128 (46.89%)	122 (44.69%)
<i>P value</i>	<0.001	0.629	<0.001	<0.001	<0.001	0.004	<0.001

**Fischer's exact test used*

Table 6. Comparison of the reaction of doctors and that of other health service providers

	Run away*	Put something in the mouth	Turn him to the side	Protect him from injury	Loosen anything on his neck	Help him stand up	Speak reassuringly to him
Doctors	0 (0.00%)	16 (16.16%)	81 (81.81%)	95 (95.96%)	91 (91.92%)	20 (20.20%)	64 (64.65%)
Other HSPs	3 (3.80%)	45 (56.96%)	46 (58.23%)	73 (92.41%)	69 (87.34%)	37 (46.84%)	57 (72.14%)
<i>P value</i>	0.051	<0.001	0.002	0.31	0.31	<0.001	0.28

**Fischer's exact test used*

Table 7. Relating positively with a person with epilepsy

	Will you marry a PWE	Will you be friends with a PWE	Will you eat with a PWE	Will you trade with a PWE	Will you live with a PWE	Will you work with a PWE	Will you employ a PWE	Are you afraid of PWE	Should a PWE go to school	Is the PWE normal
HSP	27 (13.24%)	181 (88.73%)	179 (87.75%)	190 (93.59%)	174 (85.29%)	180 (88.32%)	125 (61.27%)	36 (17.73%)	194 (95.10%)	139 (68.14%)
HMSW	30 (10.99%)	159 (58.24%)	139 (50.92%)	186 (68.13%)	165 (60.44%)	187 (68.75%)	113 (41.39%)	88 (32.23%)	225 (82.72%)	117 (42.86%)
<i>P value</i>	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001

Table 8. Relating positively with a PWE

	Will you marry a PWE	Will you be friends with a PWE	Will you eat with a PWE	Will you trade with a PWE	Will you live with a PWE	Will you work with a PWE	Will you employ a PWE	Are you afraid of PWE	Should the PWE go to school	Is the PWE is normal?
Doctors	20 (20.20%)	96 (96.97%)	96 (96.97%)	97 (97.98%)	92 (92.93%)	92 (92.93%)	70 (70.71%)	11 (11.22%)	95 (95.96%)	78 (78.79%)
Other HSPs	5 (6.33%)	68 (86.08%)	68 (86.08%)	73 (93.59%)	68 (86.08%)	70 (88.61%)	45 (56.96%)	18 (22.78%)	75 (94.94%)	52 (65.82%)
<i>P value</i>	0.004	0.016	0.025	0.389	0.079	0.087	0.038	0.100	0.246	0.144

A very high percentage (97.68%) of the health workers had heard of epilepsy which is similar to the 98% from the Zambian study [12]. In a similar study in Riyadh was 100% of the participants had heard of epilepsy [14]. There was no statistical difference between the doctors and other HSPs. Approximately half (49.52%) of the participants know at least someone with epilepsy in comparison to the Zambian study where more than 98% of respondents knew someone with epilepsy and had witnessed a seizure [12]. Worthy of note is that all the participants in the Zambian study were health service providers. There were no health management support workers in that study. In our study, 102 (39.84%) did not acknowledge their relationship with the PWE. The reason for not acknowledging the relationship is not known. Out of those who acknowledged their relationship with the PWE, 38.96% acknowledged the PWE as friends and relatives. This is similar to the Zambian study where a third reported having a close family member with epilepsy [12]. This willingness to acknowledge a close blood relationship with the PWE gives hope that epilepsy may be coming 'out of the shadows' [15].

On the etiology of epilepsy, the result showed that there were more of the HMSW who had the traditional African belief that epilepsy is caused by evil spirits, witchcraft and even excessive palm oil than the HSP. Meanwhile, there were more HSP who knew that epilepsy may result from medical causes like trauma, birth injuries, brain tumours and stroke. This is not surprising since the HSP are in close contact with PWEs and are part of their care. What was surprising however is that there were doctors who actually believe that epilepsy was caused by evil spirits and witchcraft. In the study from Riyadh, 10.57% felt that epilepsy was caused by supernatural powers [14]. Once again, more of the HMSW thought that epilepsy was both transferable and contagious than the HSP. They believe that epilepsy can be contacted through urine, blood, saliva and faeces. It was startling to note that there were medical doctors who believe epilepsy to be contagious and eight of them consider urine to be the source of contact. This is actually appalling in view of their medical knowledge. It however shows how much background beliefs affect opinions. This may explain why a person having a seizure is alienated because people are afraid of contacting the disease. The belief that epilepsy can be transferred or inherited may explain the courtesy stigma that relatives and friends of PWE are subjected to [5]. This is in

contrast to the Zambian study where most of the participants did not believe that epilepsy is contagious.

We showed that while most HSP believe epilepsy to be treatable, regrettably, there were some HSP who did not believe that epilepsy is treatable and some others who were unsure. It is rather disheartening that some health service providers do not believe that epilepsy is a treatable disease and can be treated in the hospital. This poor knowledge is however much worse among the HMSW.

On reaction to someone having seizures, we showed that the HSP are more likely to help a person having seizures than the HMSW. This is not unexpected since the HSP have better knowledge of disease in general. However it may also be an inkling of the belief that seizures are contagious. Surprisingly a similar percentage of the participants (both HSP and HMSW) will put an object in the person's mouth during the seizures. This barbaric act causes a lot of trauma to the buccal cavity and should never be encouraged.

We showed that the HSP have a more positive attitude to the PWE. A remarkably greater percentage of the HSP are more likely to marry, be friends, eat, trade, employ or work with a PWE. Even amongst the HMSW, more than 50% them will be friends, eat, trade, live and work with a PWE. This may suggest that the attitude and perception towards epilepsy seems to be improving. However, to marry a PWE seems to be a different issue. This is indicated by the paltry percentage of the participants who can marry a PWE. Doctors however are more likely to marry PWEs than other HSPs. $P=0.004$. Doctors were also more likely to eat or be friends with PWEs than other HSPs.

Some participants (17.7% of the HSP and 32.3% of the HMSW) indicated that they are afraid of PWE. $P=0.004$. This was a curious finding in this study considering the fact that PWE are rather stigmatized and ostracized [2-4]. It raises the question of whether what has been regarded as stigmatization is actually fear since epilepsy is assumed to be a spiritual disease. Interestingly, in the study from Zambia, the health care workers indicated that among their family members, people with epilepsy are usually feared (48.1%) or rejected (26.9%), with only 20% of health care workers reporting that people with epilepsy are accepted. These health care

workers viewed the community as even less supportive of people with epilepsy, reporting that the community rejects or fears people with epilepsy 49.8 and 39.0%, respectively. Only 7% of health care workers feel that people with epilepsy are accepted by their community [12]. Further studies will attempt to find out the reason for the fear with a view to dispelling the fear.

We also showed that more of the HSP will take their relatives with epilepsy to the western type hospital for care. Worthy of note is that some of the HSP (16.67%) will take their relatives to the church but not as much as the HMSW (43.59%). It is astounding, to note the number of these participants who will take the relative to the traditional healers. Almost a quarter of the HMSW (22.34%) will actually seek help from the traditional healers. Thankfully none of the HSP will hide the relative. Even amongst the HMSW, only 12 (4.40%) will hide such a relative. This may mean that the participants may have conquered to some extent of the 'courtesy stigma' which relatives and friends of PWE undergo. Once again, it is incredible to see that there are health workers who will actually administer herbs rather than take the PWE to the hospital.

The participants generally accepted that women with epilepsy can have children but again there was a statistical difference between both groups with 98.53% of the HSP been in the affirmative as against 82.78% of the HMSW $P < 0.001$. This response was similar to that of whether a man with epilepsy can have children. This finding is encouraging because anecdotal reports show that apart from the fear of heredity, the fear of inability to conceive is the other reason for PWE are not considered marriageable. The authors have witnessed broken engagements on the because of epilepsy.

5. LIMITATIONS OF THE STUDY

The major limitation of this study was the proportion of the health service providers to the health management support workers. There were surprisingly more HMSW than HSP.

6. CONCLUSION

The knowledge of epilepsy is much better among health service providers than health management support workers. This was not unexpected. However the attitude of the HMSW towards the PWE leaves a lot to be desired. The

fear is that this same attitude influences that of the general public who misunderstand the role of the HMSW in health care. The knowledge, attitude and perception of health workers towards epilepsy especially the HMSW need improvement. We would require use of the mass media to educate the populace about epilepsy and encourage sufferers to seek treatment early. The health education will help reduce these misconceptions about the disease and help eliminate stigmatization of sufferers. Once this is achieved, epilepsy having come "out of the shadows" will no longer be of a 'dreaded disease'.

CONSENT

All participants gave informed consent. Their privacy was protected since names were not required in the questionnaires.

ETHICAL APPROVAL

Ethical approval was not applicable since the study did not involve or endanger life in any way.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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