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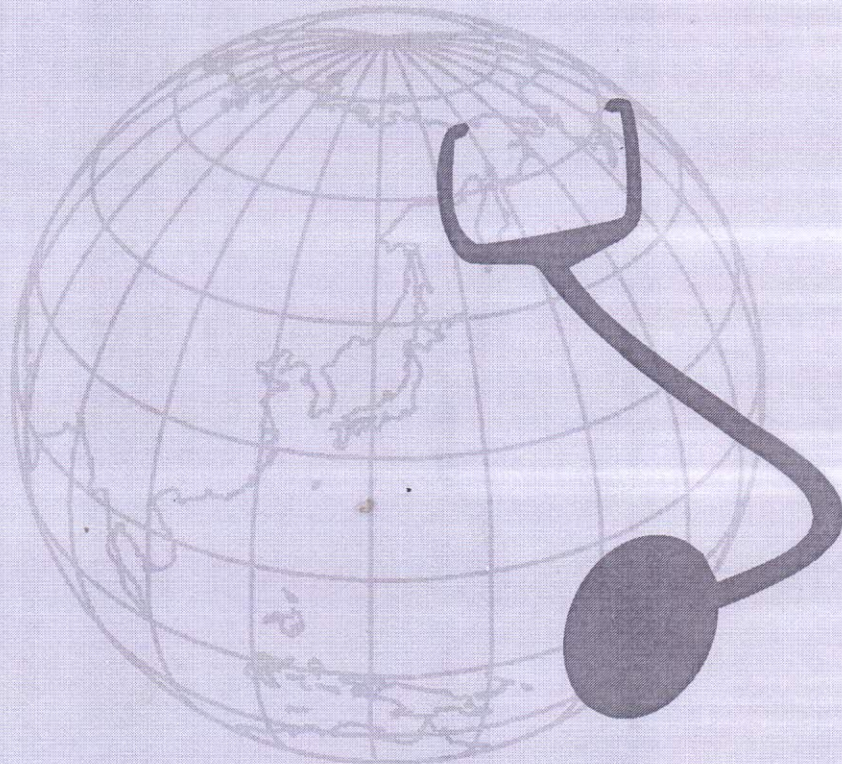
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Knowledge, Attitude and Practices (KAP) among Patients of Epilepsy Attending Tertiary Hospital in Bhubaneswar, Odisha

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ABSTRACT

Introduction: Persons with epilepsy are shunned and discriminated against in education, employment, and marriage in India because epilepsy is seen as a shameful disease in the eyes of the public. These observations come from many studies carried out in India and outside.

Objective: To obtain information on knowledge, attitude and practices (KAP) of epilepsy patients in Bhubaneswar

Materials & Method: Interview of 150 people with epilepsy (PWE) attending the Neurology outpatient services of Hi Tech Medical College and Hospital, Bhubaneswar was conducted. Demographic details and responses to a questionnaire assessing the knowledge, attitude and practices were recorded.

Results: A majority of the patients belonged to middle socioeconomic strata, the literacy rate was reasonably high (96%). A large majority (91%) of PWE had heard about epilepsy and 93% knew that epilepsy can be treated with modern drugs. Positive attitude was observed with respect to allowing a child with epilepsy to study (75%), play games (91%) and allow children to play with a child with epilepsy (94%). Although encouraging responses were not observed regarding marriage. It was observed that there was only one (0.7%) response to epilepsy being contagious and 21% believed it to be caused by supernatural powers.

Conclusion: These studies can dispel the myths and misconceptions about epilepsy from the minds of people and create awareness regarding modern treatment modalities available for it.

Keywords: KAP, Epilepsy, Tertiary Hospital

INTRODUCTION

Epilepsy is derived from the Greek word *epilambanein*, meaning 'to seize' or 'to attack'. It was first recorded in 716 B.C to 612 B.C. in Babylonia. Hippocrates described epilepsy as the 'sacred disease' but most cultures placed a demonic interpretation on its unique constellation of symptoms and signs. It was only in 1875 that the disease was recognised as disordered brain electricity.

Although the disease is such an old one, the stigma attached to epilepsy and the misconceptions about the disease often contribute to a greater burden than the disease itself.¹⁻³ Stigma can have significant negative influence on treatment seeking behaviour, quality of life encompassing all spheres of life including education, employment, marriage and child bearing.^{4,5} Discrimination at school, job, by friends, spouse and family members adds to the burden. Social ostracization affects not only the person with epilepsy but also the family members.

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There are scarce studies on such aspects in Odisha. Therefore a study was undertaken to obtain information on the knowledge, attitude and practices of epilepsy patients presenting to Hi Tech Medical College and Hospital, Bhubaneswar.

MATERIALS AND METHOD

All the People with Epilepsy (PWE) attending the neurology outpatient services of Hi Tech Medical College and Hospital, Bhubaneswar, during the period October 2012 to December 2012 (3 months) were enrolled for the study. Out of 178 PWE who presented during the study period, informed consent could be obtained from 150. A predesigned and pretested questionnaire was administered comprising of 23 questions assessing the KAPs in English or Hindi or Odia whichever the patient was proficient with. The questionnaire was translated and back translated to English and checked for accurate response. The

questionnaire recorded demographic details and the responses for assessing KAP. The responses were recorded as 'yes', 'no' and 'don't know'. Statistical tests were done by calculating percentage and chi square test (p-value less than 0.05 was considered as significant). Ethical clearance from the Institutional Ethical Committee was obtained.

RESULTS

A total number of 150 PWE were interviewed during a 3-month study period including 90 males and 60 females.

Table: 1 Demographic detail of 150 patients with epilepsy

Parameters	Number	%
Age in Years		
<30	103	68.7
31-45	43	28.7
46-60	4	2.6
Gender		
Males	90	60
Females	60	40
Income		
(National Council of Applied Economic Research, NCAER)	17	11.3
Low(<Rs.40,000 p.a)	105	70
Middle(Rs.41,000-1.8lakhs p.a)	28	18.7
High(>Rs.1.8lakhs p.a)		
Occupation		
Employed	56	37.3
Student	49	32.7
Housewife	29	19.3
Unemployed(Males only)	16	
Education		
Illiterate	6	4
School	15	10
Graduate	106	70.7
Professional	23	15.3
Marital Status		
Married	115	76.7
Unmarried	35	23.3

The demographic characteristics of 150 patients are shown in Table 1. Young people under age of 30 years constituted the majority (68%) and the rest (28%), except for 4 subjects, were in the middle age. Seventy percent of the patients belonged to middle income

group who had access to specialist consultation in a hospital. Out of all PWE who were interviewed, 37% were employed. There was a startling finding that 18% (16 out of 90) of males remained unemployed due to their epileptic condition.

Table 2: Knowledge, attitude and practices among 150 persons with epilepsy

Question	Yes		No		Don't Know	
	N	%	N	%	N	%
1. Have you heard about epilepsy?	137	91.3	13	8.7		-
2. Is epilepsy a brain disorder?	84	56.0	36	24.0	30	20.0
3. Is epilepsy a mental disease?	36	24.0	103	68.7	11	7.3
4. Is epilepsy a hereditary disorder?	19	12.7	131	87.3		-
5. Is epilepsy due to supernatural powers?	31	20.7	117	78.0	2	1.3
6. Is it due to sins of patient/ ancestors?	23	15.4	116	77.3	11	7.3
7. Is epilepsy contagious?	1	0.7	124	82.6	25	16.7
8. Is epilepsy treatable with modern drugs?	139	92.7	8	5.3	3	2.0
9. Is epilepsy treatable with Ayurvedic medicine?	7	4.7	74	49.3	69	46.0
10. Can faith healers treat epilepsy?	27	18.0	123	82.0		-
11. Is branding useful in treatment of epilepsy?		-	145	96.7	5	3.3
12. During an epileptic attack will you put keys in the hands of patients?	10	6.7	138	92.0	2	1.3
13. During an epileptic attack will you make the patient smell a shoe?	42	28.0	108	72.0		-
14. During an epileptic attack will you take the patient to hospital?	145	96.7	5	3.3		-
15. Can a child with epilepsy study?	113	75.3	36	24.0	1	0.7
16. Will you allow your child to play with a child with epilepsy?	141	94.0	9	6.0		-
17. Can a child with epilepsy play games?	136	90.7	12	8.0	2	1.3
18. Can a person with epilepsy take up a job?	136	90.7	14	9.3		-
19. Can a person with epilepsy marry?	98	65.4	40	26.6	12	8.0
20. Will you reveal about the epilepsy of your daughter before marriage?	60	40.0	90	60.0		-
21. Will you reveal about the epilepsy of your son before marriage?	85	56.7	65	43.3		-
22. Can a person with epilepsy have children?	138	92.0	12	8.0		-
23. Are you discriminated by spouse?	25	16.7	125	83.3		-

The responses to the questionnaire (Table 2) showed that 91% had heard about epilepsy, while 93% knew epilepsy can be treated with modern drugs and 97% mentioned that they would take a person having an epileptic attack to the hospital. While 56% considered epilepsy to be a brain disorder, 24% thought it was a mental disorder, 21% attributed the disease to supernatural powers and 15% thought that the disease is a result of sins committed by them or their parents in the present or previous birth and still 7% did not know with conviction. Certain practices during an epileptic attack such as making the afflicted person smell a shoe and putting the keys in the hand

were mentioned by 28% and 7%, respectively. Positive attitude was observed with respect to allowing a child with epilepsy to study (75%), play games (91%) and allow children to play with a child with epilepsy (94%). Although encouraging responses were not observed regarding marriage of daughters (60%). Only 40 to 55% mentioned that they will disclose the information about their son/daughter has epilepsy before marriage. Discrimination by spouse was reported in 17% cases. A significant observation was that there was only one (0.7%) response to epilepsy being contagious and 17% don't know whether epilepsy is contagious.

Table 3: Association between attitude of PWE and literacy status

Variables	Positive Attitude		Negative Attitude		Chi square Total		(p value)
	No.	%	No.	%	No.	%	
Illiterate	2	33.3	4	66.7	6	100	-
School	6	40.0	9	60.0	15	100	0.08(p=0.77)
Graduate	84	79.2	22	20.8	106	100	4.38(p=0.04)
Professional	21	91.3	2	8.7	23	100	6.53(p=0.01)
Total	105	70.0	45	30.0	150	100	

Table 3 shows that there is a significant association of literacy with the positive attitude of patients with epilepsy. The graduates and those with a professional background had a significant ($p < 0.05$) positive attitude than those with school education ($p > 0.05$), when the three groups were compared to illiterates.

DISCUSSION

In this present study, attempts were made to assess the KAP of epilepsy in Bhubaneswar among patients with epilepsy. The majority of patients in our study were in the middle socioeconomic strata and were graduates. The myths and misconceptions about the disorder particularly that epilepsy is due to supernatural causes were recorded in 20.7% which was comparable with the observations (4 to 26%) of others from different parts of the country.^{6,7,8} Knowledge that epilepsy is a brain disorder was reported by 56% which was slightly less than the observation of 68% in the population of Kerala⁹ 93% of our patients were aware that epilepsy is treatable with modern drugs, while it was only 78% in the study from Kerala.⁹

Ayurveda is widely practiced and popular in Kerala and 64% felt that ayurvedic treatment is beneficial as against 5% in our study. In many of the studies in India faith healing is considered to cure epilepsy by 6 to 39% of responders.⁶⁻¹² In our study just one patient (0.7%) felt that epilepsy is contagious as against high proportion of 12% and 13% in studies on public reported by Radhakrishnan et al. and on persons with epilepsy by Khwaja et al., respectively.^{9,11}

Our study showed that only 5% of our patients would not allow their children to play with a child with epilepsy compared to 11% reported by Radhakrishnan et al.⁹ and 43% by Gambhir et al.¹² A negative aspect in our study was that more than half of our patients mentioned that they would not disclose the information that their son/daughter has epilepsy because of the fear of not finding suitable partner and difficulty in marriage negotiations.

In many parts of India there is a practice to keep keys in the hands of the patient or smell a shoe to abort the epileptic attack. In our study we found that 7% and 28% respectively practised this age old method with strong belief without any scientific reasons.

The present study in Bhubaneswar showed that with increase in literacy level, there was a significant association with positive attitude.

CONCLUSION

The public attitude towards epilepsy has changed, although slowly. The data emerging from the Indian studies should provide guidance to the policy makers, planners and administrators to implement measures to improve the KAP in PWE and general public. They should incorporate awareness programs to enhance understanding of nature of the disorder, and focus on issues related to schooling, marriage, having children and eliminate negative attitudes towards people with epilepsy. This issue can be dealt efficiently from the school level where the misconceptions are erased from the young minds before the myths have a strong foothold.

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Conflict of Interest: None

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