

SHORT ARTICLE

Knowledge, attitude and practice of epilepsy among persons attending tertiary care hospital of Bundelkhand region, Central IndiaArvind Kumar Kankane¹, Aradhana Kankane², Mohd. Zaki Siddiqui³, Pranjal Mishra⁴, Ashish Sharma⁵¹Assistant Professor of Neurology, Department of Medicine, ²Associate Professor, Department of Pediatrics,³Lecturer in Medicine, Department of Medicine, ^{4,5}Junior Resident, Department of Medicine, MLB Medical College,

Jhansi

Abstract	Introduction	Methodology	Results	Conclusion	References	Citation	Tables / Figures
--------------------------	------------------------------	-----------------------------	-------------------------	----------------------------	----------------------------	--------------------------	----------------------------------

Corresponding Author

Address for Correspondence: Dr Arvind Kumar Kankane, Assistant Professor of Neurology, Department of Medicine, MLB Medical College, Jhansi

E Mail ID: drarvind_neuro@rediffmail.com

CitationKankane AK, Kankane A, Siddiqui MZ, Mishra P. Knowledge, attitude and practice of epilepsy among persons attending tertiary care hospital of Bundelkhand region, Central India. *Indian J Comm Health*. 2015; 27, 2: 281-285.**Source of Funding :** Nil **Conflict of Interest:** None declared**Article Cycle****Submission:** 28/05/2015; **Revision:** 07/06/2015; **Acceptance:** 10/06/2015; **Publication:** 30/06/2015**Abstract**

Objectives: This study was conducted to find out knowledge attitude and practice (KAP) of epilepsy among persons of bundelkhand region. Secondary data from this study was compared with KAP studies from other parts of country. **Material and Methods:** Four hundred non epileptic persons attending various OPDs of Maharani Laxmi Bai Medical college Jhansi, Uttar Pradesh were selected randomly. Printed questionnaire having answer yes or no were used for assessment of KAP. This questionnaire was used by various authors and validated for KAP analysis. **Results:** It was revealed that word epilepsy was heard by 94% of persons, 64% thought that epilepsy is a mental illness. Twenty three percent believe it to be contagious disease while 21% attribute it to previous life sin. Social discrimination was favored by 53% persons. Negative attitude is shown as more than half persons stated that epilepsy is hindrance to marriage and occupation. Holy treatment by tantric or priest was favored by 20% persons. More than one third persons use onion, shoe or splash water on face to terminate seizure episode. **Conclusion:** Study on persons of Bundelkhand revealed poor KAP for epilepsy and require special educational programme to remove these misconception

Key Words

Knowledge; Attitude; Practice; Epilepsy; Bundelkhand

Introduction

Epilepsy is one of the most common neurological disorders in the world. More than 50 million people worldwide live with epilepsy, and 80% live in economically backward and developing countries (1). The estimated prevalence rates for epilepsy suggest that about 6 to 10 million people live with epilepsy in India (1). Myths and misconception in epilepsy are deeply rooted and resulted in considerable stigma and discrimination about the disease in society (2, 3, 4). Stigma attached to epilepsy and misconception about the disease are

often more devastating than the disease itself (5). Stigma to epilepsy not only influence the treatment of disease, but also affect education, employment, marriage, child bearing, discrimination at school, jobs and family. Stigma about epilepsy is more in developing countries as compared to developed world (5).

Bundelkhand is a geographic area of central India which is divided between states of Uttar Pradesh and Madhya Pradesh. It has a total population of around 18 million, out of which approximately 14 million of the population lives in rural area (6). Bundelkhand is considered as under-developed area of central India

and it is economically backward, having low level on health and education system. Superstitions belief and ignorance about chronic diseases like epilepsy is common in this area. Knowledge attitude and practice (KAP) studies have now become integral part of community management of chronic illness associated with high level of stigma such as epilepsy (7). To the best of our knowledge no study on KAP in epilepsy has been conducted from this region of country.

Aims & Objectives

The aim of this study is to obtain information on KAP of people of Bundelkhand and compare with Indian data. The finding of this study may provide the base to start comprehensive epilepsy program to improve public awareness about the disease along with rational prescription of antiepileptic drugs in this region.

Material and Methods

A cross sectional study was conducted in Maharani Laxmi Bai medical College, Jhansi, Uttar Pradesh. This medical college is only tertiary health centre in Bundelkhand region which is catering all social classes from different socio-economic status. The study population included 400 adult non epileptic persons attending outpatient department (OPD) of various specialties during the period of 1 months. The selected persons are attendants of non-epileptic patients from medicine, surgery, gynecology and pediatrics OPD. 100 persons were selected randomly using random number tables from each OPD making total of 400 persons. After obtaining informed verbal consent peoples were administered a questionnaire (table- 1) assessing the KAP by post graduate students of internal medicine. Since selected area belongs to Hindi speaking area the questionnaire was translated in Hindi language and then back translated for final analysis. Based on previous studies the KAP questionnaire comprising of 23 questions with yes or no response were utilized (5,8). Question 1-7 indicate knowledge, 8-14 attitude and 15-23 indicate practice about epilepsy.

Results

The total of 400 individuals participated in study. They comprised of 290 males and 110 females. Age ranged from 15 to 65 years. Response to KAP questionnaire is summarized in [table-1](#).

KNOWLEDGE :- Majority of persons (94%) were heard or read about epilepsy. Half of them knew at

least 1 person of epilepsy. Regarding cause of epilepsy 58% believe that epilepsy is an organic brain disorder while 68% believe that epilepsy is a mental problem. Prevalent misconceptions were that epilepsy is a result of previous life sin (23%), contagious (21.5%) and is hereditary disorder (43.5%).

ATTITUDE :-Sixty one percent persons thought that epilepsy creates hindrance in normal life of patients. More than half persons believe that person with epilepsy should not marry (54%) or may not have normal sexual relations (58%). Sixty two percent persons were against education of epileptic patient while 64% believe that epileptic persons should not work. Fifty three percent persons believe that society should behave differently with a person with epilepsy. About 20% persons would object their kids to play or study with epileptic child.

PRACTICE :- Sixty five percent persons believe that allopathic medications are effective in treatment of epilepsy. Holy treatment with worship (23%) and tantric (17.8%) were also believed to be effective in treatment of epilepsy. Regarding first aid treatment, 68% would prefer to take the patient to hospital. However, 49% would sprinkle water on face and even 25.5% and 26% would give bunch of keys in hand or put shoes or onion on nose of patient respectively.

Discussion

An attempt has been made to access the Knowledge Attitude and Practice (KAP) of epilepsy in Bundelkhand region of central India. Finding in our study were suggestive of worse pattern of KAP when compared with other studies from India ([Table1](#)). The word epilepsy was heard by 94% of persons, similar to other studies (8). Nearly 21% persons believe that epilepsy is a result of previous life sin and almost same believe that it is contagious disease. This number is surprisingly high as compared to other studies done at Uttarakhand (8), Kerala (9) and Delhi (10). Very high number of persons of Bundelkhand believe that epilepsy is mental illness (58%) or familial disease (43.5%) which is higher in comparison to study from Delhi (14.2% and 3.3% respectively) (10). Probable explanation for this difference is poor literacy and lack of awareness programs in this region. The attitude towards epilepsy among the population of Bundelkhand is far more negative than other parts of country. Social discrimination with epileptic patients was favored by

53% of persons. About 20% persons would not allow to play or study their child with epileptic child. This number is significantly higher as compared to other study from Kerala (11%)(5) and Uttarakhand (13%) (8). In other population surveys from developing countries like in China (11) and Kuwait (12) 57% and 28% would oppose playing with child with epilepsy respectively while in developed countries like Finland, USA and Italy this figure ranged from 8 to 19% (10). This attitude in our population may be related to their belief that epilepsy is mental and contagious illness and due to more social backwardness in this region. Fifty four percent persons were against marriage of patient with epilepsy. Almost same number (58%) thought that they would not have normal sexual life. This is very high as compared to other studies (5, 10). Regarding marriage issues, usual practice in many parts of India including Bundelkhand is that parents hide the information about epilepsy before marriage due to stigma attached to it. Almost 2/3rd persons believe that epilepsy result in hindrance in education (62%) and occupation (64%) while this number was less in other parts of India. Several times it is seen that parents and school teachers' compel the student with epilepsy to remain away from school. In a study on school teachers from north east India 20% teachers prefer to place epileptic child in special classroom (13). In rural Tanzania 68% of parents would not allow the child with epilepsy to go to school (14). Only 34% persons believe that person with epilepsy can be employed when compared with national range of 54% to 91% (10). About 20% persons preferred faith healers or tantric for treatment of epilepsy which is comparable to other studies. Responder who opted for this method was mostly those who believe that disorder was a result of previous life sin or affliction by evil spirit. Fifty eight percent respondents believe that Ayurveda is beneficial for treatment of epilepsy. Ayurveda and other alternate systems of medicine are widely practiced and popular in Bundelkhand. They also believe that allopathic medicines have many side effects (61%). For first aid treatment, majority of persons (68%) would prefer to take the patient to hospital. Absurd measures like putting the keys in the hands of patient (25.5%) or put water on the face (49.5%) or put shoe or onion on nose(26%) of patient is also noted. If we compare from other studies from Delhi and Uttarakhand and south India, less number of persons used these nonscientific

measures for seizure termination due to better literacy status and social awareness programme. Change in public attitude towards epilepsy does occur, albeit slowly. This is exemplified from study from Jaipur, North-West India where an improvement in public attitude was observed over a period of 4 years in people of epilepsy who were regularly provided health education at follow up visits (3).

Conclusion

Finding from our study suggests that KAP for epilepsy in Bundelkhand is very poor in comparison to other parts of country. Large proportion of persons was of belief that epilepsy is mental disease, it runs in family and a person with epilepsy should not be married or employed. Wrong practice like use of onion and shoe for acute attacks is still common in this region.

Recommendation

Epilepsy is a disease with a high degree of stigma and prejudice and the success of treatment depends very much on treatment compliance and the understanding of nature of disorder. A positive attitude not only help in generating self confidence among epileptics but also help in better compliance to therapy leading to more effective control of seizures. Requirement of special educational program was felt to dispel myths and misconceptions about epilepsy. Clinicians in this region also need to spend some extra time from their busy schedule while addressing social issue to the public.

Limitation of the study

This is a hospital based study and so the study findings could not be extrapolated to the community.

Relevance of the study

Further community based studies are required to determine exact KAP of epilepsy in bundelkhand region.

Authors Contribution

All authors have contributed equally in the study.

References

1. Tripathi M, Jain DC, Devi MG, Jain S, Saxena V, Chandra PS, Radhakrishnan K, Behari M, Gupta M, Puri V, Mehndiratta MM, Bala K, Anand KS, Rawat S, Shah PU, Gulati S, Johri S, Nadkarni VV, Chandra PS, Bachani D. Need for a national epilepsy control program. *Ann Indian Acad Neurol*. 2012 Apr;15(2):89-93. doi: 10.4103/0972-2327.94989. PubMed

PMID: 22566719; PubMed Central PMCID: PMC3345606.[\[PubMed\]](#)

2. Khwaja GA, Singh G, Chaudhary N. Epilepsy and religion. *Ann Indian Acad Neurol.* 2007;10:165-8.
3. Surekha AK, Surekha R. Knowledge attitude and practice with regards to epilepsy in rural north west India. *Ann Indian Acad Neurol.* 2007; 10: 160-4.
4. Gambhir SK, Kumar V, Singhi PD, Goel RC. Public awareness, understanding & attitudes toward epilepsy. *Indian J Med Res.* 1995 Jul;102:34-8. PubMed PMID: 7558208.[\[PubMed\]](#)
5. Radhakrishnan K, Pandian JD, Santhoshkumar T, Thomas SV, Deetha TD, Sarma PS, Jayachandran D, Mohamed E. Prevalence, knowledge, attitude, and practice of epilepsy in Kerala, South India. *Epilepsia.* 2000 Aug;41(8):1027-35. PubMed PMID: 10961631.[\[PubMed\]](#)
6. en.wikipedia.org[internet]:bundelkhand.wikimedia foundation inc [updated 2015 April 30]. available from <http://en.wikipedia.org/wiki/bundelkhand>.
7. Senanayake N. Epilepsy in developing countries: historic perspective. In: murthy, editor. *Epilepsy in the tropics. India: Jaypee Brothers; 2006.* pp. 1-4.
8. Goel D, Dhanai JS, Agarwal A, Mehlotra V, Saxena V. Knowledge, attitude and practice of epilepsy in Uttarakhand, India. *Ann Indian Acad Neurol.* 2011 Apr;14(2):116-9. doi: 10.4103/0972-2327.82799. PubMed PMID: 21808474; PubMed Central PMCID: PMC3141474.[\[PubMed\]](#)
9. Pandian JD, Santosh D, Kumar TS, Sarma PS, Radhakrishnan K. High school students' knowledge, attitude, and practice with respect to epilepsy in Kerala, southern India. *Epilepsy Behav.* 2006 Nov;9(3):492-7. Epub 2006 Sep 12. PubMed PMID: 16971188.[\[PubMed\]](#)
10. Gourie Devi M, Singh V, Bala K. Knowledge attitude and practice among patients of epilepsy attending tertiary care hospital in Delhi, India and review of Indian studies. *Neurology asia.*2010;15:225-32.
11. Lai CW, Huang XS, Lai YH, Zhang ZQ, Liu GJ, Yang MZ. Survey of public awareness, understanding, and attitudes toward epilepsy in Henan province, China. *Epilepsia.* 1990 Mar-Apr;31(2):182-7. PubMed PMID: 2318170.[\[PubMed\]](#)
12. Awad A, Sharkoo F. Public knowledge and attitude towards epilepsy in Kuwait. *Epilepsia* 2008 ; 17: 684-90.
13. Thacker AK, Verma AM, Ji R, Thacker P, Mishra P. Knowledge awareness and attitude about epilepsy among schoolteachers in India. *Seizure.* 2008 Dec;17(8):684-90. doi: 10.1016/j.seizure.2008.04.007. Epub 2008 Jun 9. PubMed PMID: 18539487.[\[PubMed\]](#)
14. Aziz H, Mangal Z. Attitude and practice of epilepsy in developing countries. In: Murty JM, Senanayake N, editors. *Epilepsy in tropics.* 1st ed. Texas. Landes Bioscience; 2006. pp. 30-9

Tables

TABLE 1 COMPARISON OF KNOWLEDGE, ATTITUDE AND PRATICE FROM VARIOUS STUDIES IN INDIA

S. No.	Questions	Present study (Bundelkhand)	Pandian <i>et al</i> (2006)9Kerala	Gourie devi <i>et al</i> (2010)10Delhi	Goel <i>et al</i> (2011)8 Uttrakhand
1.	Have you heard/ read about epilepsy?	94%	97.7%	94.2%	97.6%
2.	Do you know an person with epilepsy?	51%	43.1%	-	48.3%
3.	Is epilepsy a mental illness?	64%	59.3%	14.2%	74.9%
4.	Is epilepsy an organic brain problem?	58%	50.4%	55%	64.9%
5.	Is epilepsy known to occur in family?	43.5%	34.1%	3.3%	31.8%
6.	Is epilepsy result of previous life sins	21.5%	11.2%	20.9%	5.2%
7.	Can epilepsy spread by contact?	23%	13.9%	0.8%	4.7%
8.	Epilepsy creates hindrance in normal life. Yes/no?	61%	62.4%	-	72.5%
9.	A person with epilepsy should not marry. Yes/no?	54%	58.1%	10.8%	76.3%
10.	A person with epilepsy will not have normal sexual relations. Yes/no?	58%	43.2%	7.5%	75.3%
11.	A person with epilepsy should not study. Yes/no?	62%	40.8%	18.3%	72.5%
12.	A person with epilepsy should not work. Yes/no?	64%	29%	9.2%	74.4%
13.	Society should behave differently with a person with epilepsy. Yes/no?	53%	45.1%	-	26.5%
14.	Would you like to object to play/study with an epileptic child?	18.9%	13%	5%	15.6%
15.	Can epilepsy be treated by allopathic medicines?	69.5%	55.4%	91.7%	61.1%
16.	Is Ayurveda treatment the only option for epilepsy?	58%	59%	2.5%	75.8%

17.	Does an epileptic patient need lifelong treatment?	68%	35%	-	72.5%
18.	A epileptic person should not leave even a single tablet?	72%	60.9%	-	77.3%
19.	Drugs used in epilepsy have many side effects. Yes/no?	61%	55.1%	-	58.8%
20.	Can epilepsy be cured?	72%	47.3%	-	75.4%
21.	Holy treatment e.g. tantric is good for epilepsy?	17.8%	22%	-	17%
22.	Priest can treat epilepsy better?	23.1%	39.1%	19.2%	25%
23.	If you see a person with epileptic fit what will you do				
	A. will go to hospital	68%	62.3%	96.7%	49.8%
	B. will give bunch of keys in hand	25.5%	7.5%	5.8%	1.4%
	C. will put some water on his face or	49.5%	23.9%	-	23.2%
	D. will put shoe or onion on his nose	26%	-	12.5%	40.8%