

## Original Research Article

DOI: <http://dx.doi.org/10.18203/2349-3291.ijcp20193750>

# Public awareness towards first aid management of epilepsy

Chaitra K. M.<sup>1</sup>, Avinash Agrawal<sup>1\*</sup>, Varshini P.<sup>1</sup>, Anil H.<sup>1</sup>, Sweta Athani<sup>2</sup>

<sup>1</sup>Department of Pediatrics, <sup>2</sup>Department of Community Medicine, Kempegowda, Institute of Medical Science, Bangalore, Karnataka, India

**Received:** 11 May 2019

**Revised:** 15 July 2019

**Accepted:** 29 July 2019

**\*Correspondence:**

Dr. Avinash Agrawal,

E-mail: [dravinash019@gmail.com](mailto:dravinash019@gmail.com)

**Copyright:** © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

### ABSTRACT

**Background:** Determination of attitude and awareness towards epilepsy in general population. Despite successful achievement of management of epilepsy in hospitals, the efforts to assess the awareness and mass education is very limited.

**Methods:** Total 880 participants were required to answer a series of questionnaires related to demographic data, awareness, attitude towards epilepsy with details of their first aid management and their source of information for the same.

**Results:** Concerning attitude, 14.65% would object having their children associated with epilepsy. 72.16% would object to marry or their children marrying an epileptic. 8.86% thought epilepsy as a form of insanity. Concerning knowledge, the 33% will seek others help as a first aid measure and 50% don't have any source of information regarding first aid management.

**Conclusions:** The results indicate considerable amount of social stigma still exist and alarming fact was even the educated people still think it as a social stigma and are biased. Awareness needs to be enhanced through various knowledge campaigns. Stress on proper first aid measure to a seizing person needs to be addressed to remove fear and anxiety among the public.

**Keywords:** Awareness, Attitude, Epilepsy, First aid, Mass education, Social stigma

### INTRODUCTION

Seizure is a transient occurrence of signs and/or symptoms resulting from abnormal excessive or synchronous neuronal activity in the brain. Epilepsy is a disorder of the brain characterized by an enduring predisposition to generate seizures and by the neurologic, cognitive, psychologic and social consequences of this condition.<sup>1</sup> Etiology is multi factorial and almost any insult to brain can result in seizures. It can result from infections, infestations, hypoxic damage, birth injuries, malformations or genetic / metabolic causes. All these precipitating factors are more common in paediatric age

group. There are more than 12 million people with epilepsy in India, contributing nearly one sixth of global burden.<sup>2</sup> Approximately 4-10% of children experience at least 1 seizure (febrile or afebrile) in the 1st 16 year of life and 5% of children during 1st 5 years of life.<sup>1</sup> There are approximately 6 to 10 million people live with epilepsy in India.<sup>2</sup> The incidence rate varying from 0.2-0.6 per 1000 population.<sup>2</sup> And more than half of the cases start in childhood.<sup>1</sup> In India, prevalence rate for epilepsy are 5.59 per 1000 populations. Males are slightly more affected than females and these rates are the same in different geographical areas and almost every study shows that more affected number of people in rural areas than urban

one.<sup>2</sup> Hospital based studies show higher number of partial epilepsies, and the community based studies recorded higher frequency for generalized seizures.<sup>2</sup>

Any kind of discrimination always hurts and causes deep pain and it is very sad to see that people have very strong social stigma for not a very uncommon disease like epilepsy. Discrimination and ignorance about the disease still exists all over the world. In a study done in Kerala in about 29.6% (331) of people out of total 1118 accepted that there is a discrimination of a person with epilepsy.<sup>3</sup>

The stigma and discrimination are more devastating than the disorder itself. Periodically conducted knowledge, attitude and practice (KAP) studies or nationwide polls in developed world have showed more favorable social environment and increased adaptations due to continuous mass education. Even well educated people in our society lacks knowledge and possess undesired attitude.<sup>4</sup>

Authors always take backseat, when it comes to public education. Even in families with epileptics, abnormal attitude comes in the form of over protection and generally parents nurture a state of dependence and its negative effects become more evident in their life later.

**METHODS**

A study was conducted in South Bangalore, in the month of February 2019. The study population included 880 adults. The questionnaires were distributed among the general public be it in the hospitals, bus stand, colleges, railway stations and in the other public places. The same questionnaires were asked and sometimes questions had to be explained, when respondents were unable to understand. But at the same time, hints or suggestions were totally avoided. Authors excluded the person with

epilepsy or having family member with epilepsy. It was face to face interview and participation was completely voluntarily after informed verbal consent. No two respondents were from same family. The questions in the questionnaire were 8 and were only regarding the education of the participant and more was focused on the awareness regarding the first aid towards a seizing person. Data was entered in Microsoft excel. Means, frequencies and percentages were used to describe the data. Chi square test was used to find the significance of association between two categorical variables.

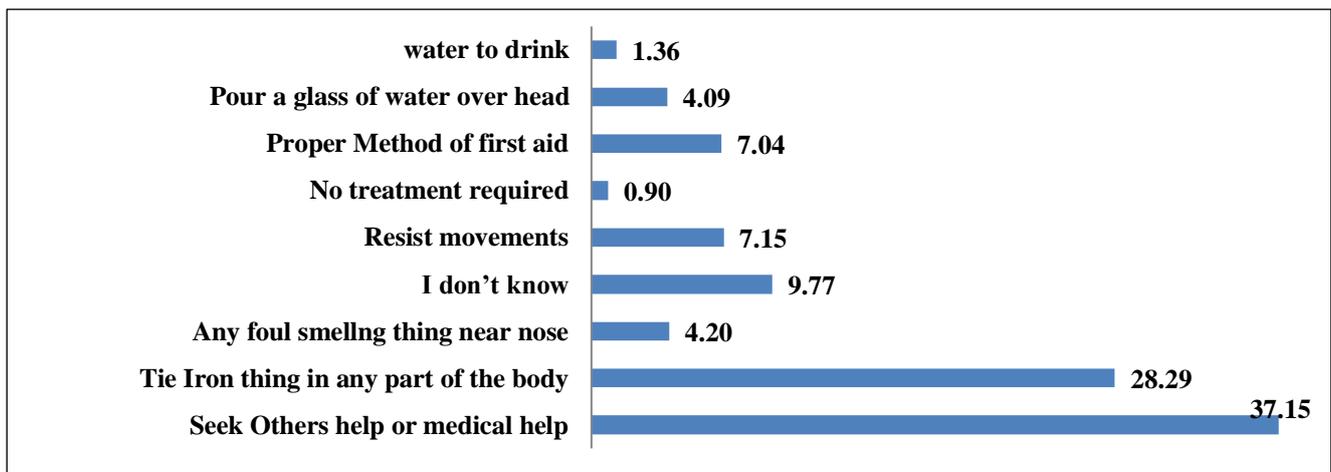
**RESULTS**

Total 880 subjects were participated in our study. Average age was 33.12±12.13 years. Median age was 32 years. Males (58.1%) were more than females. Almost 98% of our participants were literate.

As shown in Figure 1, authors found that more than one third (37.15%) of the population would seek help from others.

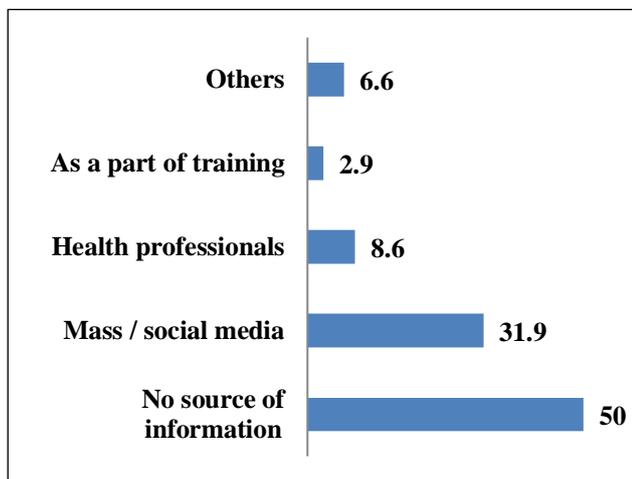
The 7% could give proper first aid care to the seizing person. The first aid like lateral positioning of the patient, clearing the airways and providing mouth to mouth breathing, if person is not breathing.

A very significant number (28.29%) of population in our study would prefer to tie any iron made thing to the seizing person’s body in order to stop seizures. About 9.7% of respondents were clueless and they didn’t know what to do in such situation. About 13.5 % of the respondents gave measures like offering water to drink or pour a glass of water & even try to resist the jerky movements in a seizing person. In our study, application of inappropriate measures is up to 45%.



**Figure 1 : Response of the population to active seizing person for first aid care (in percentages). Majority (37.15%) people will seek others help, and 32.50% people chose absurd measure like iron tying (28.29%) or putting foul smelling thing near nose (4.20%), while 9.77% people are totally clueless for that situation.**

Authors also collected the source of information through which they came to know about the first aid, and it was very surprising to know, as shown in Figure 2 that 50% of the population among the participants did not have any source of information regarding first aid management of a seizing person. Approximately 32% of participants had their opinion because of mass or social media including movies, television, posters or pamphlets. Health professional were the source of their knowledge for 8.6% of population. 3% had knowledge as a part of their training. 6.6% had other sources like friends and neighbors. Results regarding sources of their information were an eye opener for us. 50% of the study population has not heard or seen anything regarding first aid management and 467 people who have heard/read or seen; health personnel, movies, television or any live demonstration comprises 86.8% as their source of information.



**Figure 2 : Source of information of their response regarding first aid management of actively seizing person (in percentage). 50% of the population doesn't have any source of information and 32% people have heard or seen about first aid management by social / mass media. Health professional like doctors or nurses are the source for less than one tenth (8.6%).**

Among the participants, authors found that 14.65% would object, if their children would play with a child with epilepsy. These negative attitudes were significantly associated with gender and age. 9.1% among  $\leq 30$  age of population and 19.8% among  $>30$  years would object (p value  $<0.001$ ). 9.4% among males and 21.9% among females would object (p value  $<0.05$ ). 8.86% of participants thought that it is a form of insanity. This attitude was more observed among females (12.2%) as compare to males (6.5%) (p value 0.003).

One of every three participants would object to marry or if their children marrying a person, who sometimes had seizures. This attitude was significantly associated with  $>30$  year age population (19.8%) as compare to  $\leq 30$  year age population (9.1%) (p value 0.001) These data show

the importance and continuous requirements of health education. The only way to bring change in the society is by mass education, which has vital role in conducting awareness.

## DISCUSSION

Through this study, authors tried to know about attitude and awareness towards the epilepsy disease. These kind of surveys and continuous mass education is the need of the hour. Authors are familiar with the disease and its existence, but authors lack knowledge. There is still a negative approach to the problem. Similar study conducted in Kerala, the state with the highest literacy rate, almost 80% people felt taking to hospital on seeing a seizing person as first aid measure.<sup>5</sup> Similarly very high number in other states also like 68% in Bundelkhand study, 49.8% in Uttarakhand study, where people chose absurd measures like making them hold or tie bunch of keys.<sup>3,5-8</sup>

A growing child suffers the most with this kind of negative attitude and authors need to rectify our present-day education system to improve the negative prejudice against epilepsy. With continuous and better health education, authors can change the public attitude. In United states, the percentage of people who would allow their children to play with a child with epilepsy increased from 59% to 88% in a study conducted between 1949-1979.<sup>9</sup> We can see similar trends in others studies also.<sup>9-11</sup> It shows the importance of effective public education.

It is very essential to build a sense of confidence among public and the fear/panic experienced on facing a seizing person should be eradicated.

Local customs and beliefs are also the major factors responsible for the misleading information like consideration of epilepsy as insanity in our country. Same observation has been found in other Asian and African countries, while western world like Denmark and Hungary are more confident.<sup>10</sup>

In these studies, it clearly indicates that there is strong existence of social bias, when it comes to marriage with epileptics. Religious beliefs, which are deep rooted in our society appears to be the reason behind these biases. Hence, Authors should get involved the religious and spiritual leaders also and explain them the scientific facts about the disease which would be more effective in our country as authors follow a general system where spiritual leaders are our guide.

Movies, television, print and electronic media, social networking sites and other sources from internet are the major sources of information in the current era. Our study clearly indicates that social media have a significant role in spreading information about the disease and only with the optimal use of these available communication channels, authors can bring the change in our society.

## CONCLUSION

Here by authors conclude that its high time that the importance is given towards the first aid measures for seizing person and to remove the bias which is a social stigma by educating the public about the scientific reason behind the seizures and its management for which social media plays a vital role. The spread of knowledge about the disease by the doctor through the health camps and talks in the social media is the need of the hour. The spiritual leaders and even the elder at home should preach their family members about the disease and its approach so that authors live in a healthy society.

Overall it will improve health care of victims and they will also gain confidence to fight with the situation, which leads to control of seizures in a more effective way.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

## REFERENCES

1. Kliengman, Stanton, St.Geme, Schor, Behrman. Nelson textbook of paediatrics. 1st south asia Edition: Elsevier; 2014.
2. Amudhan S, Gururaj G, Satishchandra P. Epilepsy in India 1 : Epidemiology and public health. Annals Indian Acad Neurol. (2015);18(3):263-77.
3. Radhakrishnan K, Pandian JD, Santosh kumar T, Thomas SV, Deetha TD, Sarma PS, et al. Prevalence knowledge attitude and practice of epilepsy in Kerala, South India. Epilepsia. 2000;41(8):1027-35.
4. Ablon J. The nature of stigma and medical conditions. Epilepsy and behaviour. (2002);3(6):s2-9.
5. 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;9(3):492-7.
6. Kankane 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):281-5.
7. Goel D, Dhanai JS, Agarwal A, Mehlotra V, Saxena V. Knowledge, attitude and practice of epilepsy in Uttarakhand, India. Ann Indian Acad Neurol. 2011;14(2):116-9.
8. 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. Neurol Asia. 2010;15(3):225-32.
9. Caveness WF, Gallup Jr GH. A survey of public attitudes towards epilepsy in 1979 with an indication of trends over the past thirty years. Epilepsy. 1980;21(5):509-18.
10. Mirnics Z, Czikora G, Závecz T, Halász P. Changes in public attitudes towards epilepsy in Hungary: results of surveys conducted in 1994 and 2000. Epilepsia. 2001;42(1):86-93.
11. Chung MY, Chang YC, Las YH, Lai CW. Survey of public awareness, understanding and attitudes towards epilepsy in Taiwan. Epilepsia. 1995;36(5):488-93.

**Cite this article as:** Chaitra KM, Agrawal A, Varshini P, Anil H, Athani S. Public awareness towards first aid management of epilepsy. Int J Contemp Pediatr 2019;6:2189-92.