

Knowledge, Attitude and Practices of Dentists Towards the Dental Treatment of Epileptic Patients

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ABSTRACT

The objective of this study is to investigate the level of knowledge, attitude and practices of final year students, house officers and demonstrators towards the epileptic patients visiting Sharif Medical and Dental College. A well-formed proforma was used to document the knowledge of dental health care providers regarding the dental treatment of patients with epilepsy. 170 participants were included in the study out of which 119 were male and 51 were female. Most of the respondents agree that epilepsy cannot be identified on history alone. 48.2% think that epileptic patients can be treated in-office safely. 54.7% of respondents believe. Significant improvement of dentists' knowledge regarding epilepsy is mandatory as insufficient knowledge of dentists about epilepsy may drastically affect their treatment proficiency

INTRODUCTION

Epilepsy is a common but grave neurological problem affecting an estimated 50 million individuals over the world.¹ Improvement in outcomes of many chronic disorders like epilepsy has been noticed with advancements in medical fields and technology.² Epilepsy further grows into complicated forms; one of them is an epileptic seizure. An epileptic seizure is a brief episode of signs or symptoms due to abnormally unwarranted or synchronous neural activity in the brain.³ Generally epileptic patients' oral health is not so good in comparison to the general non-epileptic population. They receive less adequate oral treatment due to certain social and medical factors. Usually, patients with epilepsy are not appropriately handled by the dentists due to inadequacy of their knowledge regarding epileptic seizures and their complications. More efficient treatment can be delivered to patients with epileptic problems if the treating doctor or dentist has ample knowledge of the basics and recent advances of seizure management and its potential complications.⁴ Damage resistant appliances or prostheses should be used in epileptic patients.⁵ It is believed that the treatment of such patients should be preplanned by assessing the severity of their disease. Several measures are essential to be taken for perfect dental care such as safe diagnosis, choice of pharmacological and surgical options and appropriate venue for the treatment, seizures, and syndrome classification. Moreover, neurological consultations and frequent recall visits are required for the long-term monitoring of the patients showing adverse oral complications. Increased knowledge about seizures and how to manage them make dental professionals more comfortable.⁶ Several research studies have been conducted to investigate the knowledge and behavior of dentists regarding epileptic patients. A significant study conducted at the University of Jordan revealed that dental students have insufficient knowledge and negativism toward epilepsy.⁷ Another study was executed on the health science students of Manipal University, it observed that a good number of students were unaware of nuances associated with epilepsy.⁸ A survey of dentists in London, showed that people with seizure problems have less access to dental health care facilities due to negative attitudes and inadequate knowledge of dentists regarding this condition.⁹ A study held in Riyadh, Saudi Arabia, suggested that the level of epilepsy awareness among health care professionals needed improvement.¹⁰ Another study conducted in the Malaysian setting also came up with a conclusion that the influence of awareness, knowledge and attitude (AKA) on the health-related quality of life (HRQoL) of a patient with epilepsy needed to be widely established.¹¹ In the Pakistani scenario, a research study conducted in Peshawar (KPK), exhibited that 44% of dentists think they cannot treat epileptic patients safely in their office.¹² Another study was carried out on community residents in

southeast Nigeria which revealed that the knowledge of epilepsy among urban dwellers of SE Nigeria is low and troubled with fallacies and gaps.¹³ An investigation of the knowledge and behavior of dentists regarding epileptic seizures is an extensively researched area over the world and now it is continuously becoming a subject of the growing interest to the Pakistani researchers as well. But still, in Pakistan, this area of research needs to be more focused. This study aimed to investigate the level of knowledge, attitude and practices of final year students, house officers and demonstrators toward the epileptic patients

METHODOLOGY

The present study is a questionnaire-based explorative study conducted at Dental OPD of Sharif Medical and Dental College, Lahore Pakistan. After taking ethical approval and informed consent, a questionnaire consisting of 20 items about epilepsy awareness was modified and distributed among dentists, house officers and final year students of BDS working at the Dental section of the Sharif Medical and College. This questionnaire prompted information about demographics (3 items), personal experience with epilepsy (2 items), knowledge of epilepsy (5 items), social tolerance (4 items), current practices (items) and willingness to care for patients with epilepsy (6 items). The filled questionnaires were collected from them after two days. The responses were recorded in a specially designed proforma. The data was computerized so that it could be analyzed by using a statistical technique (SPSS, Statistical Package for Social Sciences ver. 20). The findings attained because of applying a statistical technique were deemed to be authentic and valid enough to be utilized for comparisons with the results of other research studies in a similar area. Recorded data were coded and entered using SPSS statistical package version 20.0. Numerical data like age was reported as mean and standard deviation. Nominal data like gender, educational status, and responses of the respondents to the questionnaire were recorded as frequency and percentages. Overall knowledge of the final year students, house officers and demonstrators towards epileptic patients was also evaluated.

RESULTS

Out of 170 participants, 119 were males and 51 were females as shown in fig.1. Most of the surveyed dentists were house officers 93(54.7%), final year 53(31.2%), and Demonstrators 24(14.1%). According to the personal experience with epilepsy, 113 (66.5%) participants knew someone with epilepsy and 57 (33.5%) witnessed epileptic seizures.

Regarding their knowledge about epilepsy and their social

tolerance, the most respondent (n=63, 37.1%) thinks that the prevalence of epilepsy is one in every 1000 people. 33.5% (n=57) did not know the cause of epilepsy. 55 (32.4%) respondents thought that epilepsy is an inherited disease. While few of them knew that head trauma, mental illness, birth defects, and strokes can cause epilepsy. Most of the respondents i.e., 88 (51.8%) knew that epilepsy seizures can be convulsions or shakings. While 27 (15.9%) knew that it is an episode of loss of consciousness. Less than half of the respondents, 35 (20.6%) thought that the cause of epilepsy is either loss of consciousness, episodes of behaviour change or due to memory disturbance. If a patient has a seizure in a dental chair 81 (47.6%) of the respondents said they would move a patient to a safer place, and 35 (20.6%) would put something in a patient's mouth. In answer to the question about social tolerance, 68 (40%) of the respondents objected to having their child to be associated with epileptic persons. It was seen that 67 (39.4%) participants objected to a person with epilepsy marrying a close relative. 145 (85.3%) were of the view that epileptic patients should have children. It was further seen that 124 (72.9%) believed that people with epilepsy can be employed anywhere. The responses to the questions of knowledge regarding the treatment of epileptic patients are shown in figure 1. Respondent's answers to questions about their practices showed most of them agreed that they could not identify the patients with epilepsy from their medical history. It was seen that 68 (40.4%) indicated that the office policies strongly disagree to refuse the treatment of people with epilepsy, 59 (34.4%) indicated that their families would not be concerned if they treat patients with epilepsy, 82 (48.2%) thought that they can safely treat a person with epilepsy in the office, 28 (16.5%) respondents indicated that other patients would be reluctant if they treat anyone with epilepsy and 93 (54.7%) of the respondents believe that they have an ethical responsibility to treat epileptic patients.

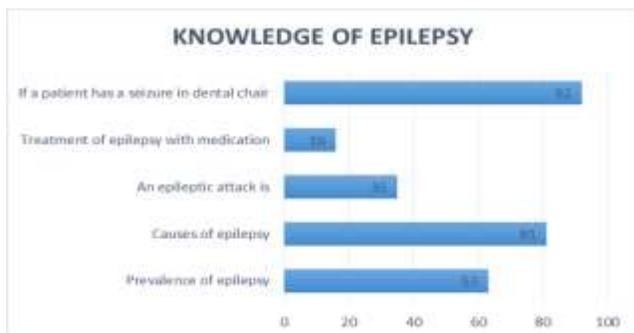


Figure 1: Knowledge Dentists regarding epileptic patients.

DISCUSSION

The incidence of epilepsy is reported to be 43 in 1000 people in developing countries.¹⁴ Its provenance is 5.6 in 1000 people in Canada.¹⁵ General and psychological health of patients can be improved by increasing knowledge and awareness regarding the nature of the disease. It is always advisable that dental treatment of people with the known conditions of epilepsy should be done by dentists who have an ample understanding of this condition. The study reveals that a considerable percentage of respondents (62%) do not have sufficient knowledge about the prevalence rate of epilepsy in Pakistan. Similarly, a higher (63%) rate of the population had no awareness of the nature of epilepsy disease. Parallel findings are manifested by a study conducted by Stoopler et al, 2003, which further argues that when dentists possess a working knowledge of seizures, in addition to an understanding of updated therapies for seizure management and oral complications associated with pharmacological therapy, they can treat patients with these disorders more effectively.⁴ Moreover, a substantial percentage of the respondents (52%) in the current study possessed insufficient and incorrect information about the causes of epilepsy. That lack of knowledge, misinformation, and

misconception on the part of practitioners about the causes of epilepsy does not have a favorable effect on the treatment of patients. The study revealed that the knowledge of a considerably high percentage of the population (90%) of the current study is extremely faulty about the treatment of epilepsy with medication. Only a small percentage (16%) of respondents reflected correct information about the medication for epilepsy. The result further demonstrated that a comparatively higher majority of the population (55%) possessed correct information about how to deal with the patient having seizures in the dental chair. Anyhow, a low percentage (45%) needs to improve their awareness regarding this specific aspect. The results exhibited that respondents have a developed understanding related to social tolerance regarding epilepsy patients. Most respondents believe that epileptic patients after being cured may extend proactive participation in social activities. The result of the present study corresponds to the findings of a study conducted by Cecelia et al (2009) which concluded that the general attitude of the public toward people with epilepsy was positive.¹¹ Anyhow the results run contrary to a study conducted by Birinus et al., (2014) which investigated the attitude norms of African people towards epilepsy patients and found that those with greater epilepsy-related knowledge did not agree that people with epilepsy should have children or marry them.¹⁴ Regarding prevalent office practices for epilepsy patients, most of the population expressed their expertise in treating patients with epilepsy in the office. A considerably larger majority of respondents are fully cognizant of their ethical responsibility that they should treat patients with epilepsy. Almost equally larger number agreed that if they treat epilepsy patients, their family members would not be concerned at all, and other patients may not be reluctant as well. This study suggested that the level of knowledge possessed by dentists, house officers and final year students regarding patients with epilepsy seizures is limited and faulty. There should be a significant improvement in the overall knowledge of dentists about epilepsy patients, otherwise, they will not be able to treat the patients with these disorders more effectively. An increased level of awareness on the part of dentists and house officers regarding the causes of epilepsy and the treatment of epilepsy with medication would enable them to deal with their patients successfully. Therefore, the study emphasizes that there is a great need to improve the awareness and understanding of dentists regarding epilepsy so that their proficiency and expertise to handle epileptic seizures could be enhanced according to the need of the present day. However, the social attitude of the respondents towards epileptic patients was found to be positive. Similarly, the prevalent office practices available for epilepsy patients are also found satisfactory and acceptable.

Limitation: The limitation of the present study is that it has relied upon convenience sampling and the sample population was selected from only one medical institution. Another point of emphasis is the response is recorded by the subjects themselves. Moreover, a limited number of respondents were engaged, which has restricted the scope of this research study. To attain more generalized and comprehensive results, future studies may be extended to a greater number of medical institutions, with an increased size of the sample population.

CONCLUSION

Despite limitations, the current study is unique in the sense that it has taken an initiative to argue that a significant improvement in dentists' knowledge regarding epilepsy is mandatory. Since insufficient knowledge of dentists about epilepsy may drastically affect their treatment proficiency. The results of the present study may be significant for medical practitioners in general and, dentists and students.

REFERENCES

1. Martin J, Brodie MD, Jacqueline A, French MD. Management of epilepsy in adolescents and adults. *The Lancet*. 2000; 356, (9226): 323-9.

2. Fitzsimons M, Normand C, Varley J, Delanty N. Evidence-based models of care for people with epilepsy. *Epilepsy Behav.* 2012; 1 (23): 1-6.
3. Fisher RS, Emde Boas WV, Blume W, Elger C, Genton P, Engel J. Epileptic seizures and epilepsy: definitions proposed by the international league against epilepsy(ILAE) and the international bureau for epilepsy(IBE). *Epilepsia.*2005; 46(4): 470-2.
4. Stoopler ET, Sollecito TP, Greenberg MS. Seizure disorders: update of medical and dental considerations. *Gen Dent.* 2003; 51 (4): 361-6.
5. Peter L, Jacobsen, Eden O. Epilepsy and the Dental Management of the Epileptic Patient *The J Contemp Dent Pract.* 2008; 9, (1): 054-062.
6. Brain J, Sandersed D, James A, Weddelld.D, Nancy N, Dodge. Patients who have seizure disorders: dental and medical issues. *The J Am Dent Assoc.* 1995; 126 (12): 1641-7.
7. Yazan M, Ahmad H, Mahmoud AA, Ryalat SM, Sawair FA. Dental students' knowledge and attitudes toward patients with epilepsy. *Epilepsy Behav.* 2014; 36: 2-5.
8. Ezeala-Adikaibe BA, Anchor JU, Nwabueze AC, Agomoh AO, Chikani M, Ekenze Q S, et al. Knowledge, attitude and practice of epilepsy among community residents in Enugu, South East Nigeria. *Seizure.* 2014; 23 (10): 882-8.
9. Khan MA, Ahad B, Khan TA, Mufti AA, Khan TA. Knowledge of dentists about epilepsy and their attitude towards the dental treatment of epileptic patients: a survey of dentists in Peshawar –Pakistan. *Pak Oral Dent J.* 2015; 23 (3): 356-60.
10. Panda SB, Prabhu K, Rao S, Rao A, Rao G, Datta A, Ramanan H, Kamath A. Evaluation of knowledge of and attitudes toward epilepsy among the health science students of Manipal University. *Epilepsy Behav.* 2011; 20 (3): 447-49.
11. Cecilia E. Aragon DDS, Tiu Hess MD, Jorge G, Burneo MD. Knowledge and Attitudes about Epilepsy: A Survey of Dentists in London, Ontario. *J Can Dent Assoc.* 2009;75, (6): 450.
12. Alaqeel A, Alebdi Faris, Sabbagh AJ. What do health care professionals in Riyadh know? *Epilepsy Behav.* 2013; 29 (1): 234-37.
13. Lua PL, Moro W, Neni S. awareness, knowledge, and attitude with respect to epilepsy: an investigation in relation to health-related quality of life within a Malaysian setting. *Epilepsy Behav.*2011; 21 (3): 248-54.
14. Burneo JG, Tellez-Zenteno J, Wiebe S. Understanding the burden of epilepsy in Latin America: a systematic review of its prevalence and incidence. *Epilepsy Res* 2005; 66(1):63–74.
15. Tellez-Zenteno JF, Pondal-Sordo M, Matijevic S, Wiebe S. National and regional prevalence of self-reported epilepsy in Canada. *Epilepsia* 2004; 45(12):1623–9.