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Research Article

**ANALYSIS OF KNOWLEDGE AND PRACTICES ON  
EPILEPSY AMONG HIGH SCHOOL STUDENTS IN  
PAKISTAN**Dr Awais Nawaz Khan<sup>1</sup>, Dr Suhaib Ali Khan<sup>1</sup>, Dr Bilal Zaib<sup>1</sup><sup>1</sup>Ayub Medical College, Abbottabad

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**Abstract:**

**Introduction:** People with epilepsy are socially discriminated because of public attitudes, misunderstandings, and defensive behaviour. **Objectives:** The main objective of the study is to analyse the knowledge and practices on epilepsy among high school students in Pakistan. **Material and methods:** This cross-sectional study was conducted in Ayub medical college, Abbottabad during March 2019 to November 2019. Written consent was obtained from each school and participant. The participating students were given verbal guidance on how to fill out the questionnaire. Students studying in government schools were not included in the survey due to more difficult access when compared to private schools. **Results:** The data was collected from 100 patients and they completed the questionnaire. There were 30 boys and 70 girls. Very few students (22, 1.6%) had a family history of epilepsy and most of the students (78, 91.3%) did not have a neighbour with a history of epilepsy. The majority of high school students responded correctly to the eight knowledge questions about epilepsy. Most participants knew that epilepsy is neither a contagious disease, nor a hereditary disease (64.7%), nor a mental disease (57.0%). **Conclusion:** It is concluded that high school students were familiar with epilepsy but the overall knowledge, beliefs, and practices seem to be inadequate. Although our study results might not be generalizable to all students.

**Corresponding author:****Dr. Awais Nawaz Khan,**  
Ayub Medical College, Abbottabad

QR code



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**INTRODUCTION:**

People with epilepsy are socially discriminated because of public attitudes, misunderstandings, and defensive behaviour. Recently conducted knowledge, attitude, and practice (KAP) in developed country showed positive attitude, but in developing countries, it is still highly a stigmatizing disease. In the last decade, there has been an increase in individual literacy rate and increased access to technology and communication devices in rural population. However, it is unclear if this has any effect on KAP toward epilepsy [1].

Epilepsy is a chronic brain disorder characterized by recurrent derangement of the nervous system due to sudden excessive disorderly discharge of the aggregate group of neurons from cerebrum. The excessive discharges result in disturbances of sensation, convulsive movement, or psychic function with or without loss of consciousness [2]. Epilepsy affects all age groups but is more common in children. The reported prevalence of epilepsy in developing countries is 5 to 10 per 1000 people. Global prevalence is 2.8 to 19.5 per 1000 people. Currently epilepsy affects 50 million people worldwide, of which 80% live in developing countries [3].

Social stigma and discrimination often cause more suffering for people with epilepsy than the seizures themselves. People living with epilepsy are discriminated against in all facets of life, from education to employment and marriage. Although the etiology of stigma and discrimination is complex, lack of the knowledge regarding epilepsy is purported to be an important determinant of negative attitudes. Children with epilepsy, especially those who have seizures at school, suffer from discrimination and report feeling different from their peers. They also have fear of suffering a seizure at school [4].

Among non-communicable diseases epilepsy is a chronic disorder of the brain that occurs worldwide affecting people of all age groups. It refers to a clinical phenomenon rather than a single disease

entity, characterized by recurrent seizures. Currently, epilepsy affects 50 million people worldwide, and 80% of them live in the developing world. Prevalence of epilepsy in Pakistan has been under study. In 1994 it was prevalent in 1% of Pakistani population, whereas it was estimated to be 9.99 per 1000 population in 2003 [5].

**Objectives**

The main objective of the study is to analyse the knowledge and practices on epilepsy among high school students in Pakistan.

**MATERIAL AND METHODS:**

This cross-sectional study was conducted in Ayub medical college, Abbottabad during March 2019 to November 2019. Written consent was obtained from each school and participant. The participating students were given verbal guidance on how to fill out the questionnaire. Students studying in government schools were not included in the survey due to more difficult access when compared to private schools. The data was collected through a questionnaire. The highest possible scores for knowledge (K-score), beliefs (B-score), and practices (P-score) were eight, twelve, and three, respectively. Health professionals oriented to the questionnaire collected the data. The permission for data collection was sought from the college principal. All students were instructed to complete the questionnaire and questions were clarified as needed.

All statistical analysis was performed using IBM-SPSS 20.0 (IBM Corporation, Armonk, NY, USA). Students who had never heard/read about epilepsy were excluded from statistical analysis of the KBP scores.

**RESULTS:**

The data was collected from 100 patients and they completed the questionnaire. There were 30 boys and 70 girls. Very few students (22, 1.6%) had a family history of epilepsy and most of the students (78, 91.3%) did not have a neighbour with a history of epilepsy.

**Table 01: Knowledge of students regarding epilepsy**

Signs & symptoms of epilepsy	n	%
Fainting	90	81.8
Staring blankly into space	56	50.9
Blinking of eyes and jerks	70	63.6
Tongue rolling back	67	60.9
Causes of epilepsy		
Head injury	43	39.1
Brain stroke	56	50.9
Brain infection	21	19.1
Without specific cause	30	27.3
Myths/beliefs about epilepsy		
A contagious disease	16	14.5
Causes mental retardation	38	34.5
A punishment for sins	11	10.0
Bewitchment / supernatural possession	12	10.9
Barriers/problems faced by epileptic child		
Labeled as a disabled child	42	38.2
Unable to get good education	45	40.9
Socially unaccepted	41	37.3
Suffer from low self esteem	67	60.9

The majority of high school students responded correctly to the eight knowledge questions about epilepsy. Most participants knew that epilepsy is neither a contagious disease, nor a hereditary disease (64.7%), nor a mental disease (57.0%). However, greater than half (54.3%) responded that epilepsy is not a disease of the brain. Similarly, most of the participants were aware that allopathic treatment is beneficial for epilepsy (85.7%) but in contrast about two-third of them (69.0%) were unaware that Ayurvedic treatment is not beneficial for epilepsy.

#### DISCUSSION:

Our study showed no significant difference in the mean KBP scores between religions although Hindus had slightly better knowledge and beliefs scores, whereas scores were slightly better among other religions. However, sociocultural differences have been known to significantly affect attitude towards a person with epilepsy [7]. Similarly, age was not correlated with beliefs and practices but significantly correlated with knowledge. The age range of our study population was 13 to 18 years and a negative correlation coefficient suggests that elder students had poorer knowledge than their younger colleagues although they all had a similar level of education [8].

Although our study explores many issues regarding KBP on epilepsy among high school Nepalese students, few limitations are noteworthy. As our study is limited to the students of a particular city, it may not be entirely representative of our country. We evaluated children from private schools as we had easy access to these schools. We believe that the results of our study may have been different if children from government schools were also included because of the difference in their educational and socioeconomic background [9]. Given the binary nature of our questions, one has a 50% chance of answering "correctly" independent of knowledge base. We included basic questions related to epilepsy in our survey that can influence

better epilepsy practices in a community, but it is well known that the concepts about epilepsy are changing. By including more questions in the survey, we could have explored KBP on recent concepts about epilepsy [10].

#### CONCLUSION:

It is concluded that high school students of were familiar with epilepsy but the overall knowledge, beliefs, and practices seem to be inadequate. Although our study results might not be generalizable to all students.

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