# Evaluation of Public and Patient Perspectives on Epilepsy in a Tertiary Care Hospital: A KAP Study

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**Abstract:**

- ***Background:***
  **Stigma and cultural beliefs affect the treatment and care that people with epilepsy receive.**

- ***Objective:***
  **This study aimed to examine knowledge, attitudes, and practices (KAP) among epilepsy Patient**

- ***Methodology:***
  **A prospective cross-sectional observational study was held at Yeshodha Multispecialty Hospital, Latur. The goal was to assess the KAP regarding epilepsy among individuals with epilepsy (PWE) and those without it. A validated 25-item questionnaire was given to 101 PWE and 96 non-PWE. The responses were recorded and analysed descriptively. With Ans of yes no and do not know. Comparative analysis between the two groups used Pearson's Chi-square test to identify statistical differences in knowledge, attitudes, and practices.**

- ***Results:***
  **In the non-PWE group, awareness of epilepsy was moderate, but significant misconceptions remained. Twenty-five percent thought it was a mental illness, and 29.2% associated it with supernatural causes. Although 70.8% said they would take a patient to the hospital during a seizure, social stigma was strong: only 41.7% would let their child play with someone who has epilepsy, and only 50% supported marrying someone affected. Harmful traditional practices persisted, with 14.6% believing in making a person smell a shoe during a seizure. Chi-square analysis in the PWE group ($\chi^2 = 317.67$) showed significant differences in knowledge, attitudes, and practices between PWE and non-PWE participants. Overall, the results reveal ongoing myths and stigma, highlighting a need for focused educational efforts.**

***Keywords:*** *Epilepsy; Knowledge-Attitude-Practice; Stigma in India.*

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## I. INTRODUCTION

Epilepsy is defined by the International League Against Epilepsy (ILAE) as a brain disorder marked by a lasting tendency to produce epileptic seizures, along with various neurobiological, cognitive, psychological, and social effects [1]. Epileptic seizures occur due to sudden, excessive electrical discharges in brain neurons, which may affect a part of the brain (focal seizure) or the entire brain (generalized seizure). Depending on the brain region involved, seizures can present as jerking movements, loss of consciousness, unusual sensations, staring spells, behavioural arrest, or automatisms. Epilepsy itself is not a single disease but a spectrum of disorders with multiple causes, including genetic susceptibility, structural abnormalities (such as stroke, tumours, trauma), metabolic abnormalities, infections, immune-related mechanisms, and cases where the cause remains unknown.

Worldwide, epilepsy impacts nearly 50 million people, and about 80% of these individuals live in low and middle-income countries where diagnostic facilities and continuous treatment options are often limited [2]. In India, around 10 million people have epilepsy, and nearly 3 million experience drug-resistant epilepsy meaning they continue to have seizures despite using two or more appropriate antiepileptic medications [3]. This makes epilepsy a significant public health issue requiring ongoing medical, psychological, and social support.

Despite advancements in medical science, epilepsy remains one of the most stigmatized neurological disorders globally. Misunderstandings that link seizures to supernatural forces, sins, black magic, or mental illness are still common, especially in rural and semi-urban regions [4,5]. These cultural myths often lead to delayed treatment, dependency on faith healers, and unsafe practices such as holding the person down, giving water during seizures, or inserting objects in the mouth. Stigma also results in social isolation, discrimination in education and workplaces, difficulty in marriage prospects, and reduced quality of life such stigma have negative impact on people and has a great role in daily life [5]. Medical management of epilepsy typically involves long-term use of antiseizure medications (ASMs), lifestyle modifications, and regular follow-up. In some cases—such as drug-resistant epilepsy surgical interventions, vagus nerve stimulation (VNS), or ketogenic diet therapy may be considered. In the current study, a significant majority of PWE favoured receiving treatment in a hospital setting (93.1%), whereas international research shows that treatment methods can differ, with certain approaches like the ketogenic diet being notably acknowledged by patients in various areas [9]. Early diagnosis and consistent treatment greatly improve outcomes, but these depend on public awareness, acceptance of medical treatment, and correct practices during seizure episodes.

Knowledge, Attitude, and Practice (KAP) studies are therefore crucial for identifying gaps in awareness, correcting harmful beliefs, and improving community behaviour towards epilepsy. While many community-based KAP studies exist, there is limited data from hospital settings. Hospitals include patients, caregivers, healthcare students, and staff who are exposed to medical information more frequently; however, misconceptions and stigma are still observed even in these environments. Evaluating KAP in hospital settings helps in understanding whether increased exposure to healthcare improves knowledge and reduces stigma, or whether gaps persist.

Thus, this study aims to assess KAP about epilepsy among patients and non-patients in the hospital environment. Understanding these findings can guide targeted educational programs, reduce stigma, improve treatment-seeking behaviour, and support better management and quality of life for individuals living with epilepsy.

## II. METHODS

➢ *Study Design and Setting*

A prospective cross-sectional observational study was conducted at Yeshodha Multispecialty Hospital, Latur, Maharashtra, India.

➢ *Study Population and Sample Size*

A total of 197 participants were enrolled, comprising 101 patients diagnosed with epilepsy (PWE) and 96 non-epileptic individuals (non-PWE).

➢ *Inclusion Criteria*

- Age≥18year
- Ability to read, write, speak, or understand English or Marathi
- Willingness to participate and provide informed consent

➢ *Exclusion Criteria*

- Patients with nonepileptic seizures
- Patients with undiagnosed seizure disorders

➢ *Data Collection Tool*

A validated structured questionnaire containing 25 standardized questions was used to assess:

- Knowledge regarding causes, symptoms, and treatment of epilepsy
- Attitudes toward individuals with epilepsy
- Practices related to treatment-seeking and seizure first aid

Each question had three response options: Yes, no, and Don't Know. The questionnaire was administered in the local language under supervision to avoid external influence. These 25 questions were taken from Sethi A. K. study [12]

➢ *Ethical Acceptance:*

Yeshodha Multispeciality hospital Latur provided ethical clearance prior to data collection. Every participant provided written informed permission.

Throughout the whole trial time, patient confidentiality and anonymity were rigorously upheld.

➢ *Data Analysis*

Responses were converted into percentages. Pearson's Chi-square test was applied to compare responses between PWE and non-PWE groups. A p-value <0.05 was considered statistically significant.

## III. RESULTS

*A. Genral Non PWE:*

➢ *High Awareness: (Table.no 2)*

- Q1: 62.5% have heard about epilepsy.
- Q24: 70.8% would take a patient to the hospital during an attack.

➢ *Misconceptions:*

- Q3: 25% still believe epilepsy is a mental disease.
- Q5: 29.2% attribute epilepsy to supernatural causes.

➢ *Social Stigma:*

- Q12/Q17: Only 41.7% would allow their child to play with an epileptic, and 50% support marriage.
- Q21: 50% report no spousal discrimination, but 27.1% say it exists.

➢ *Harmful Practices:*

- Q23: 14.6% endorse smelling a shoe during attacks (a dangerous myth).

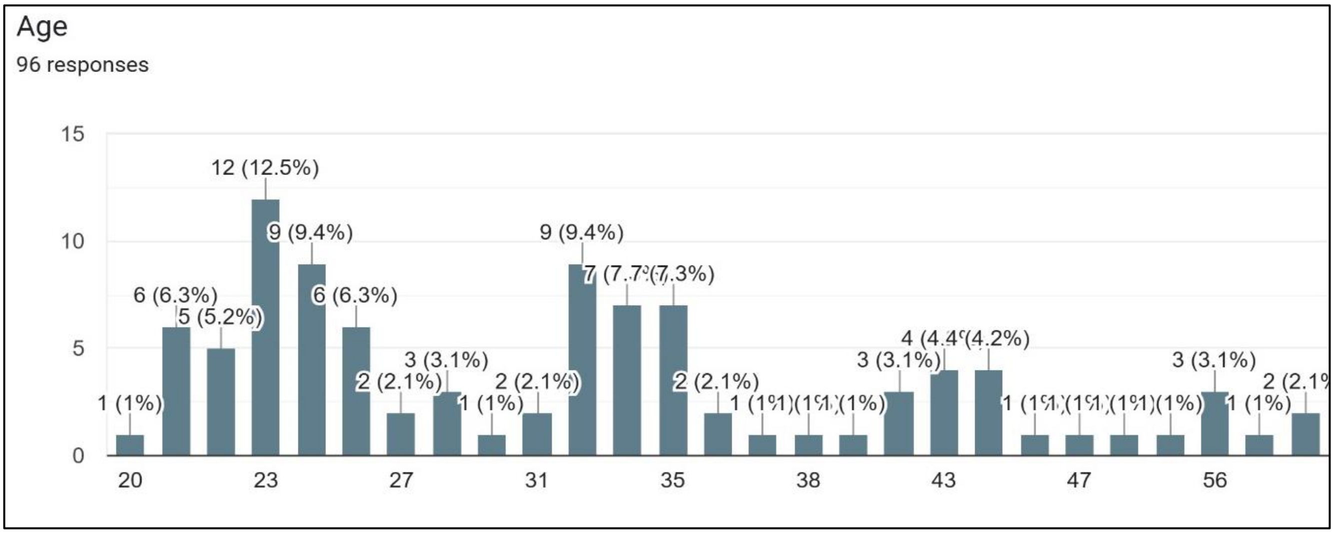
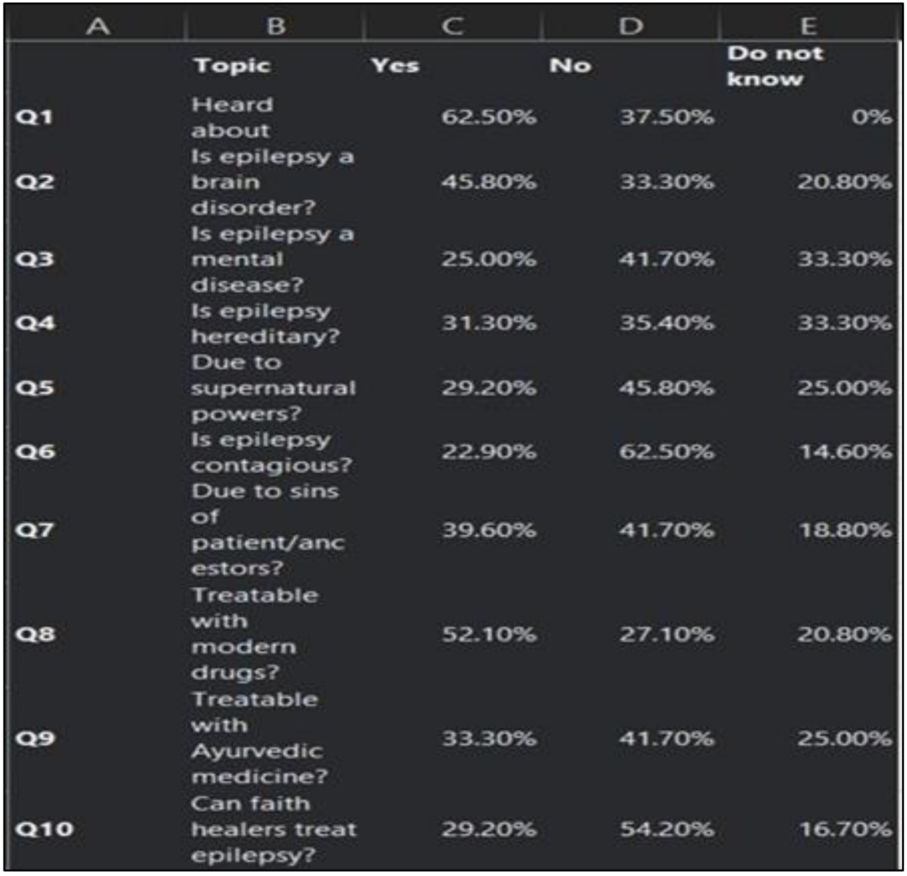
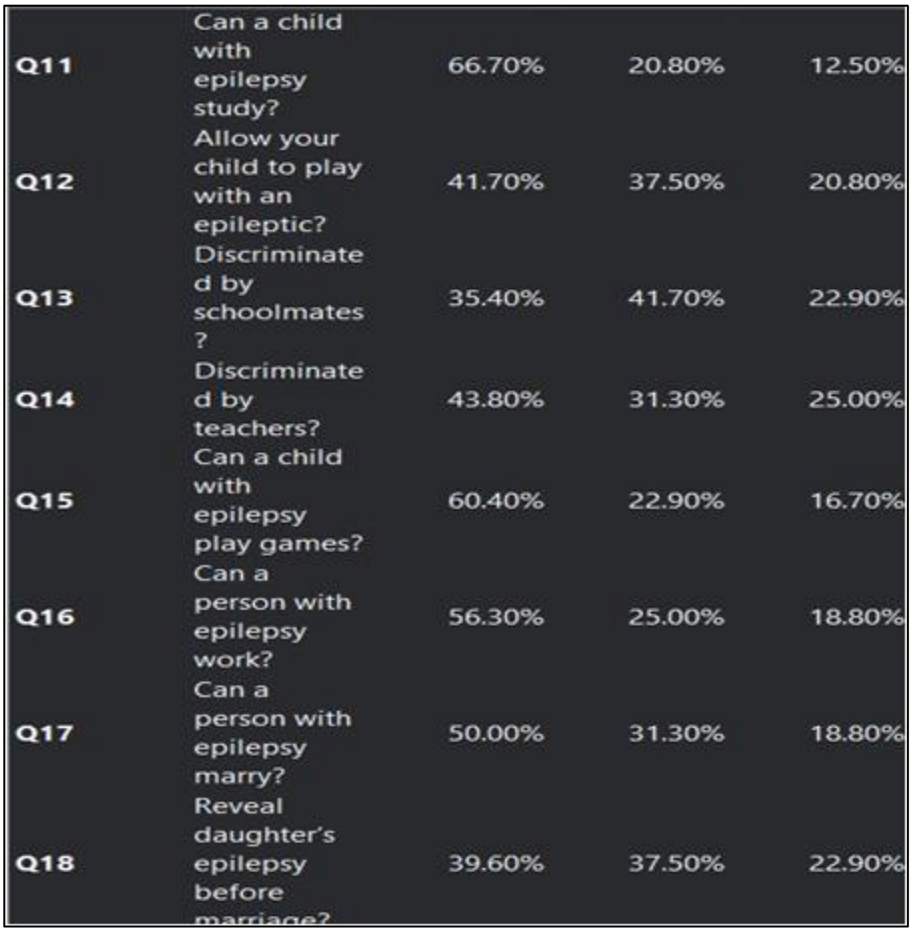


Fig 1 Age Wise Response Data form Demographic Patient Taken

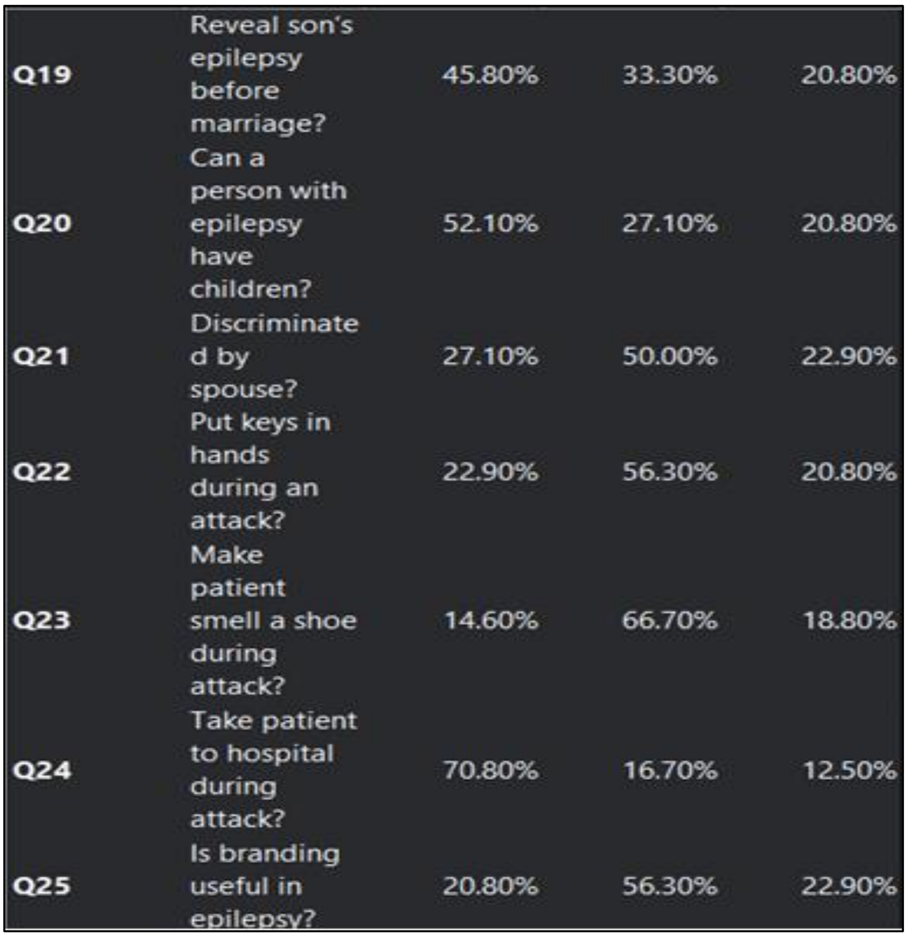
Table 1 Data Acquired from Patients in % of Non-Epileptic Patient



| A | B | C | D | E |
|---|---|---|---|---|
| | Topic | Yes | No | Do not know |
| Q1 | Heard about | 62.50% | 37.50% | 0% |
| Q2 | Is epilepsy a brain disorder? | 45.80% | 33.30% | 20.80% |
| Q3 | Is epilepsy a mental disease? | 25.00% | 41.70% | 33.30% |
| Q4 | Is epilepsy hereditary? | 31.30% | 35.40% | 33.30% |
| Q5 | Due to supernatural powers? | 29.20% | 45.80% | 25.00% |
| Q6 | Is epilepsy contagious? | 22.90% | 62.50% | 14.60% |
| Q7 | Due to sins of patient/ancestors? | 39.60% | 41.70% | 18.80% |
| Q8 | Treatable with modern drugs? | 52.10% | 27.10% | 20.80% |
| Q9 | Treatable with Ayurvedic medicine? | 33.30% | 41.70% | 25.00% |
| Q10 | Can faith healers treat epilepsy? | 29.20% | 54.20% | 16.70% |



| | | | | |
|---|---|---|---|---|
| **Q11** | Can a child with epilepsy study? | 66.70% | 20.80% | 12.50% |
| **Q12** | Allow your child to play with an epileptic? | 41.70% | 37.50% | 20.80% |
| **Q13** | Discriminated by schoolmates? | 35.40% | 41.70% | 22.90% |
| **Q14** | Discriminated by teachers? | 43.80% | 31.30% | 25.00% |
| **Q15** | Can a child with epilepsy play games? | 60.40% | 22.90% | 16.70% |
| **Q16** | Can a person with epilepsy work? | 56.30% | 25.00% | 18.80% |
| **Q17** | Can a person with epilepsy marry? | 50.00% | 31.30% | 18.80% |
| **Q18** | Reveal daughter's epilepsy before marriage? | 39.60% | 37.50% | 22.90% |

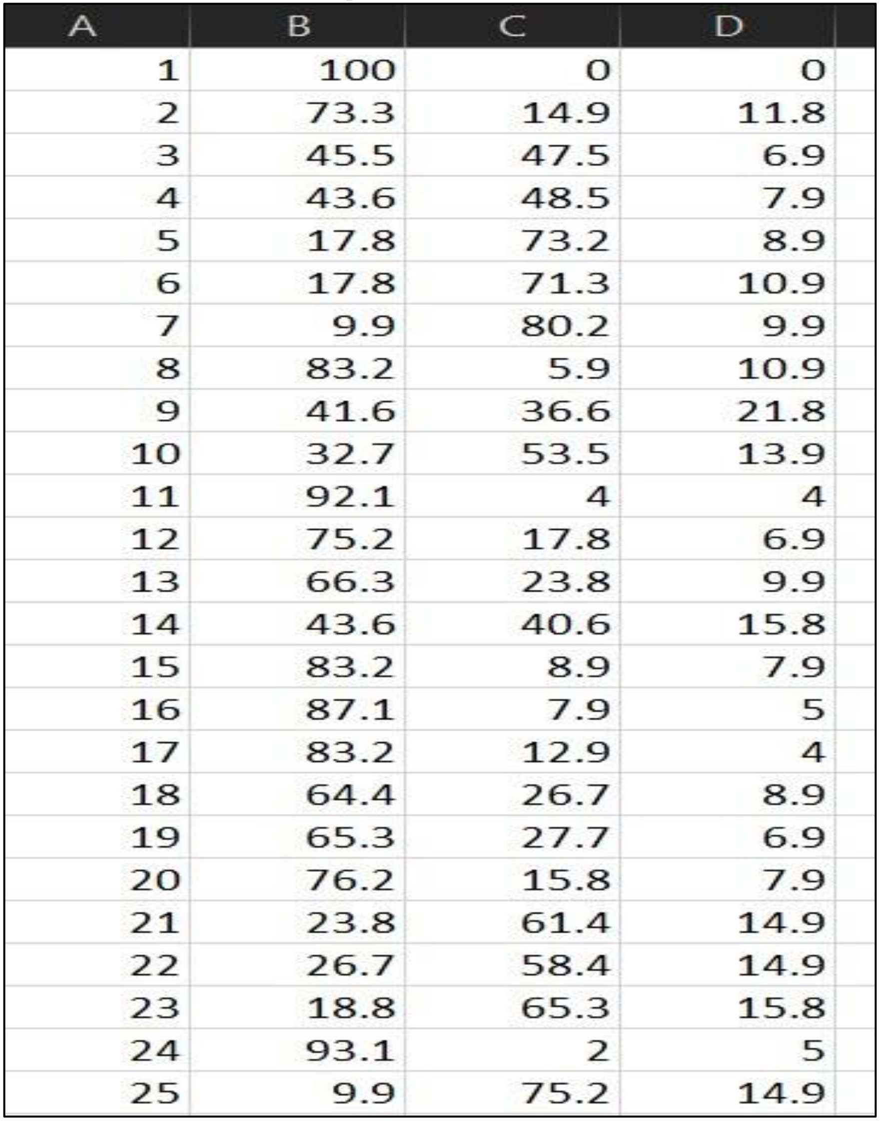


| | | | | |
|---|---|---|---|---|
| **Q19** | Reveal son's epilepsy before marriage? | 45.80% | 33.30% | 20.80% |
| **Q20** | Can a person with epilepsy have children? | 52.10% | 27.10% | 20.80% |
| **Q21** | Discriminated by spouse? | 27.10% | 50.00% | 22.90% |
| **Q22** | Put keys in hands during an attack? | 22.90% | 56.30% | 20.80% |
| **Q23** | Make patient smell a shoe during attack? | 14.60% | 66.70% | 18.80% |
| **Q24** | Take patient to hospital during attack? | 70.80% | 16.70% | 12.50% |
| **Q25** | Is branding useful in epilepsy? | 20.80% | 56.30% | 22.90% |

*B. Data of (PWE):*

The 25-item questionnaire show Overall awareness was moderate to high, with 100% having heard of epilepsy (Table no 3) (Q1) and 73.3% recognizing it as a brain disorder (Q2). However, misconceptions persisted: 45.5% believed epilepsy is a mental disease (Q3), 43.6% thought it might be hereditary (Q4), and 17.8–18.8% attributed it to supernatural causes or contagion (Q5–Q6), while 9.9–17.8% were unsure about the causes. Social stigma was evident, as only 41.6–66.3% supported children with epilepsy participating in study or play (Q11–Q15), and acceptance of employment or marriage for PWE ranged from 64.4% to 87.1% (Q16–Q17), with 23.8% reporting spousal discrimination (Q21). In terms of practices, most participants recognized the importance of hospital care (Q24: 93.1% Yes), yet some still endorsed harmful methods like making a person smell a shoe during a seizure (Q23: 18.8% Yes) or relying on faith healers or Ayurvedic treatments (Q9–Q10: 32.7–43.6% Yes). "Don't Know" responses ranged from 2% to 15.8%, indicating gaps in knowledge. Overall, while awareness is present, persistent myths, stigma, and unsafe practices highlight the urgent need for targeted, culturally sensitive educational programs and hospital-based counselling to improve understanding, attitudes, and practical management of epilepsy.

Table 2 Data Acquired from Patients in % of PWE.



| A | B | C | D |
|---|---|---|---|
| 1 | 100 | 0 | 0 |
| 2 | 73.3 | 14.9 | 11.8 |
| 3 | 45.5 | 47.5 | 6.9 |
| 4 | 43.6 | 48.5 | 7.9 |
| 5 | 17.8 | 73.2 | 8.9 |
| 6 | 17.8 | 71.3 | 10.9 |
| 7 | 9.9 | 80.2 | 9.9 |
| 8 | 83.2 | 5.9 | 10.9 |
| 9 | 41.6 | 36.6 | 21.8 |
| 10 | 32.7 | 53.5 | 13.9 |
| 11 | 92.1 | 4 | 4 |
| 12 | 75.2 | 17.8 | 6.9 |
| 13 | 66.3 | 23.8 | 9.9 |
| 14 | 43.6 | 40.6 | 15.8 |
| 15 | 83.2 | 8.9 | 7.9 |
| 16 | 87.1 | 7.9 | 5 |
| 17 | 83.2 | 12.9 | 4 |
| 18 | 64.4 | 26.7 | 8.9 |
| 19 | 65.3 | 27.7 | 6.9 |
| 20 | 76.2 | 15.8 | 7.9 |
| 21 | 23.8 | 61.4 | 14.9 |
| 22 | 26.7 | 58.4 | 14.9 |
| 23 | 18.8 | 65.3 | 15.8 |
| 24 | 93.1 | 2 | 5 |
| 25 | 9.9 | 75.2 | 14.9 |

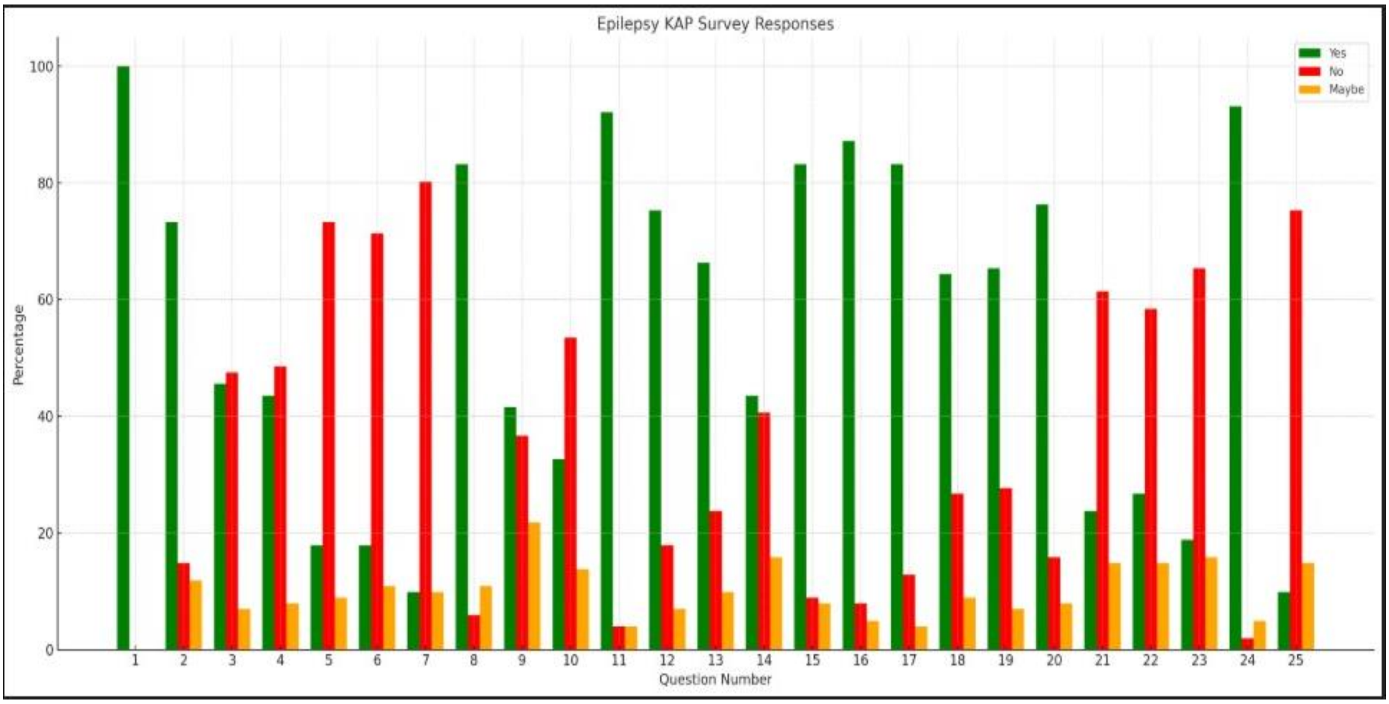


Fig 2 Graphical Representation of Data Acquired for 25 Question

➢ *Chi-Square Analysis of PWE*

- Total Chi-square value: $\chi^2 = 317.67$
- Total number of questions: 25
- Degrees of Freedom (approx.): Varies per question (mostly 1 or 2)
- Significance level (α): Typically, 0.05

➢ *Conclusion of All Chi Square Analysis Data:*

- High overall $\chi^2 = 317.67$ shows urgent need for public education
- Mix of accurate and inaccurate beliefs reflects both progress and deep-rooted myths
- Tailored, culturally sensitive awareness efforts are essential

## IV. DISCUSSION

The findings of our study indicate a complex relationship between awareness, belief systems, and social attitudes toward epilepsy among both PWE and non-PWE in a hospital-based setting. Although 100% of PWE and 62.5% of non-PWE reported having heard of epilepsy, deeper analysis reveals that mere awareness does not translate into accurate understanding. Similar patterns were observed across several recent Indian KAP studies. For instance, a high level of general awareness was also reported in Wayanad, Kerala, where 93.1% of participants knew about epilepsy [4], and among university students in South India, where 93.6% had heard of the condition [8]. Kolkata's literate PWE also demonstrated strong baseline awareness [6]. However, the North Indian caregiver study [7] showed that awareness can coexist with major misconceptions, especially when educational levels are low or when epilepsy is experienced second-hand through a child.

Despite awareness, misunderstanding about the nature of epilepsy continues to be widespread. In our study, 25% of non-PWE and an even higher 45.5% of PWE believed epilepsy to be a mental illness. This misconception is consistent with the Kolkata findings where 26% of literate PWE held similar views [6]. An even stronger psychiatric association was observed in North Indian caregivers [7], among whom nearly two-thirds considered epilepsy a psychiatric disorder. By contrast, university students demonstrated somewhat lower rates of this belief (~20%) [8], suggesting that younger populations, particularly those exposed to structured education, may be better informed. Nonetheless, these results collectively highlight that formal literacy alone does not ensure biomedical understanding.

Supernatural attributions remain strongly rooted in several communities. In the our study, 29.2% of non-PWE and 17–18% of PWE associated epilepsy with supernatural forces, karma, or curses. This look same as the findings of Kolkata study where result 7.6% thought epilepsy was communicable or the result of spirit influence, and 19.23% thought it was caused by past sins[6]. Comparatively, South Indian university students showed lower levels of such misconceptions (6%) [8], again highlighting education-level and exposure differences. Wayanad community members also expressed traditional beliefs, though percentages were not explicitly stated[5]. Overall, our findings fall well within national trends but show slightly higher superstition-based beliefs among non-PWE groups.

Social attitudes remain one of the most problematic aspects across all studies. In our study, only 41.7% of non-PWE stated they would allow their children to play with a child who has epilepsy. This is far lower compared to Kolkata, where 98% of participants stated they had no objection [6], and considerably below Kerala data, which reflected more positive societal acceptance [5]. Acceptance of marriage, education, and employment for PWE also varied widely. In our study, only 50% agreed that people with epilepsy should marry, whereas Kolkata PWE showed far more optimism, with 76% believing that PWE can have a normal married life [6]. This may reflect regional or cultural variations, or possibly differences in exposure to ongoing epilepsy awareness programs. Social stigma and restrictive attitudes toward marriage, education, and employment for PWE observed in this study are also reflected in international populations, such as Ghanaian university students and community members, highlighting the global nature of epilepsy-related social misconceptions [10]

Regarding daily functioning and employment our study's findings were mixed A significant portion of individuals with epilepsy in your sample expressed that they could lead a typical life, which is consistent with the findings from Kolkata[6] (where 76% thought epilepsy impacts normal functioning) but varies slightly from Wayanad's population [5], where many believed PWE struggle significantly with marriage and social roles. Gender differences also emerged prominently in our data, with males showing more positive attitudes toward educational and social integration of PWE, while females reported higher levels of discrimination findings that were less explicitly highlighted in the other studies.

Seizure management practices also showed significant variation across studies. In our study, 14.6% of non-PWE and 18.8% of PWE endorsed harmful first-aid measures such as making a patient smell a shoe. These practices closely resemble those in Kolkata where 89% sprinkled water on the patient's face and 18% offered keys or metal objects [6], reflecting persistent traditional responses. In contrast, the Wayanad community demonstrated more preference for allopathic treatment, with 73.9% recommending hospital care [5] our study similarly found that 93.1% of PWE preferred hospital treatment indicating strong medical trust among patients already receiving care.

Educational influence was clear across all studies. In our sample, higher education corresponded with reduced misconceptions an effect mirrored in the North India caregiver study [7], where parents with primary or secondary education were significantly more likely to view epilepsy as psychiatric. The university study [8]. also demonstrated substantial knowledge gaps between health and non-health students, reinforcing that specialized education, rather than general literacy, enhances understanding of epilepsy cause and management. Even in clinical settings, as seen in Chinese epilepsy patients, structured patient education significantly improves understanding and reduces harmful practices, highlighting the role of hospital-based counselling [11]

Overall, when compared with recent Indian KAP studies, the present research demonstrates consistent national patterns high awareness but persistent misconceptions, stigma, and unsafe practices. These similarities reinforce the view that epilepsy-related myths are deeply rooted culturally and require continuous public education. At the same time, the differences observed especially lower social acceptance in your study underline the need for more targeted awareness interventions in the specific region where our research was conducted. Strengthening hospital-based counselling, community campaigns, school awareness programs, and gender-sensitive education strategies may help reduce stigma and improve social integration of PWE.

## V. CONCLUSION

Despite improvement in basic awareness, our study highlights a clear gap between medical knowledge and real-life attitudes toward epilepsy. Many participants correctly recognize epilepsy as a neurological disorder, yet long-standing fears, cultural beliefs, and misconceptions continue to shape social behaviour. This shows that awareness alone does not guarantee acceptance; stigma around marriage, employment, and daily interaction remains strongly rooted, limiting social inclusion for people living with epilepsy.

To address these challenges, healthcare institutions and public health professionals must combine medical education with community-focused strategies. Strengthening outreach programs, creating culturally appropriate information materials, and training healthcare staff to identify and counter stigma are essential steps. By tackling both the medical and social dimensions of epilepsy, we can move toward more supportive, informed, and stigma-free care for affected individuals.

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### ➢ *Authors' Contributions*

- Conceptualization, methodology, investigation, data curation, data collection, visualization, manuscript writing, and original draft: Athawale Ruturaj C.

- Data curation, data collection, formal analysis, methodology, and validation: Athawale Ruturaj C. and Katu Y. M.

- Final approval of the manuscript: Athawale Ruturaj C. and Katu Y. M.

➢ *Conflict of Interests*

The authors declare that there are no financial interests, professional affiliations, or personal relationships that could have influenced the design, conduct, or outcomes of this research.

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