

Utilization of Complementary and Alternative Medicine among People with Epilepsy: A Narrative Review

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Abstract

Epilepsy is one of the most common chronic neurological disorders, affecting approximately 50 million people worldwide, with nearly one-third of patients experiencing drug-resistant seizures. Although antiepileptic drugs remain the cornerstone of epilepsy management, concerns regarding adverse effects, treatment costs, withdrawal symptoms, and persistent seizures have led many people with epilepsy (PWE) to seek complementary and alternative medicine (CAM). This review aims to summarize the prevalence, types, motivations, information sources, and perceived effects of CAM use among PWE. A literature search of PubMed, Scopus, and ScienceDirect was conducted for studies published between 2015 and 2024 using the keywords “epilepsy”, “complementary and alternative medicine”, “CAM”, “traditional medicine”, “prevalence”, and “motivation”. We included sixteen eligible studies in this narrative review. CAM utilization varied substantially across different countries and was influenced by cultural beliefs, accessibility, affordability, and dissatisfaction with conventional treatment. Herbal medicine, faith-based healing, dietary interventions, and mind-body practices were the most commonly reported CAM modalities. While many patients perceive CAM as beneficial for seizure control, stress reduction, and overall well-being, concerns regarding medication non-adherence, delayed conventional treatment, herb-drug interactions, and misinformation remain significant. Healthcare professionals should encourage open communication regarding CAM use and provide evidence-based guidance to ensure its safe integration into epilepsy management. Further research is warranted to establish the safety and effectiveness of commonly used CAM therapies and to support their appropriate role in comprehensive epilepsy care.

Keywords: Epilepsy, complementary and alternative medicine, therapy, integrative medicine, traditional

INTRODUCTION

Affecting around 50 million individuals globally, epilepsy is one of the most prevalent neurological disorders and is a chronic illness characterized by recurring, uncontrolled convulsions.¹ Its prevalence is significantly higher in low- and middle-income countries, which account for over 80% of cases and where access to specialized care is generally limited. Advances in antiepileptic drugs (AEDs) have not changed the fact that about 30% of people with epilepsy (PWE) remain drug-resistant, resulting in persistent seizures, cognitive deficits, psychiatric comorbidities, and a lower quality of life.²

Although AEDs are the usual therapy, many PWE seek complementary and alternative medicine (CAM) because of their adverse effects, steep prices, withdrawal symptoms, and possible aggravation of seizures.³ In some areas, stigma, false information, and limited access to medical treatment postpone appropriate care and encourage CAM use. CAM comprises non-conventional healthcare approaches, including biologically based therapies (herbal medicine and supplements), mind-body interventions (meditation, yoga, and acupuncture), manipulative techniques (massage and chiropractic care), and traditional systems such as Ayurveda, traditional Chinese medicine (TCM), and spiritual healing.^{4,5} Its use in epilepsy treatment differs among societies and medical systems, thereby affecting its frequency, types, and indications.^{6,7}

Although scientific evidence of CAM's efficacy in seizure management is limited, PWE widely utilize it. Studies reveal extensive CAM use in Western countries, often alongside AEDs, while in many African and Asian regions CAM is routinely used as a primary treatment because of cultural beliefs, accessibility, and cost.⁸⁻¹⁰ Common practices such as faith healing, herbal medicines, and energy therapies highlight the need for educational programs to encourage evidence-based therapies.¹¹ Additionally, hazards such as herb-drug interactions, toxicity, and delayed access to conventional treatment underscore the significance of studying the role of CAM in epilepsy management.

This review seeks to evaluate the incidence of CAM use among PWE, key motives for use, preferred types, sources of information, and perceived effects of CAM in epilepsy care.

METHODS

This narrative review was conducted in accordance with the Preferred Reporting Items for systematic reviews and meta-analyses (PRISMA) guidelines.¹² A comprehensive search of PubMed, Scopus, and ScienceDirect was performed to identify studies published between 2015 and 2024. The search strategy employed Boolean operators and the following key terms: “epilepsy”, “complementary and alternative medicine (CAM)”, “prevalence”, “motivation”, and “traditional medicine”.

Studies were eligible if they were quantitative research articles published in English and examined CAM use in relation to epilepsy, including prevalence, motivations, types, information sources, and perceived outcomes. Exclusion criteria included review articles, qualitative studies, case reports, and studies not directly assessing CAM in epilepsy. The study selection process is illustrated in the PRISMA flow diagram in Figure 1.

Data extraction focused on sample size, study location, CAM usage prevalence, motivations, types of CAM, information sources, and perceived effects. Findings were synthesized narratively without quantitative meta-analysis. To categorize CAM types, this review adopted the framework of the National Centre for Complementary and Integrative Health, which groups practices into five domains: whole medical systems, mind-body approaches, biologically based practices, manipulative and body-based therapies, and energy therapies.¹³

RESULT

Prevalence and Motivation for CAM Use

The prevalence of CAM use among PWE varies across regions and cultures. In the Middle East, CAM use is ubiquitous, primarily influenced by religious and cultural views. Common approaches include spiritual healing, herbal medicines, and dietary adjustments, which are frequently considered holistic solutions. One study found that 71.0% believed in CAM, while actual usage rates remained uncertain.¹⁴ In Türkiye, CAM prevalence ranged from 20.8% to 82.0% across six studies.¹⁵⁻²⁰ The reported motivations for CAM use included complementing medical treatment (86.4%), reducing seizure frequency (54.1%), and eliminating seizures (25.0%).¹⁸ Up to 24.1% of participants used CAM on medical advice. However, concerns persist that restricted communication with physicians and faith-based dependence may lead to AED withdrawal.

MAIN POINTS

- Complementary and alternative medicine (CAM) is widely used among people with epilepsy, with utilization influenced by cultural beliefs, accessibility, and concern about conventional treatment.
- Herbal medicine, faith-based healing, dietary interventions, and mind-body practices are the most reported CAM modalities.
- Perceived benefits of CAM include improved well-being and seizure control, although scientific evidence remains limited.
- Inappropriate CAM use may contribute to medication non-adherence, delayed treatment, and herb-drug interactions.
- Open communication and evidence-based guidance are essential for the safe integration of CAM into epilepsy management.

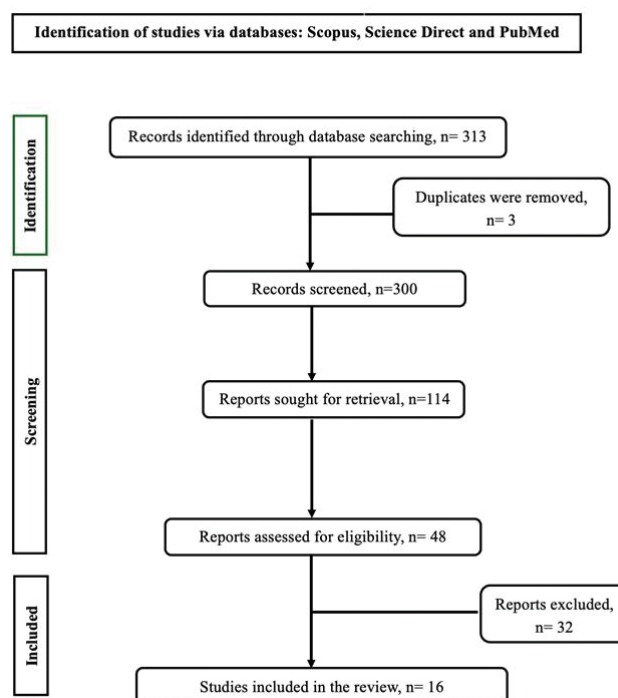


Figure 1. Flow summary of the article

In Europe, CAM is less common since the emphasis on evidence-based treatments predominates. Nonetheless, it is often used to alleviate stress and to improve well-being. In Germany, CAM use was 13.0%, and 81.0% of parents who used CAM utilized it owing to dissatisfaction with traditional therapies.²¹ Among CAM users, motivations included improving health (31.5%), regulating seizures (25.2%), and managing AED adverse effects (22.1%).²² Unlike users in certain countries, European users often combine CAM with AEDs and consult professionals before use.

In Asia, CAM is widely used, especially in low- and middle-income nations, because of cost, accessibility, and tradition. In Malaysia, prevalence ranged from 25.7% to 58.0%, with 72.5% claiming affordability and accessibility as significant reasons.²³⁻²⁵ A separate study indicated that 27.5% of caretakers employed CAM; among these, 77.3% cited its natural basis and 55.3% cited seizure control as reasons.²⁶ In South Korea, prevalence reached 77.3%.²⁷ CAM in Asia is commonly used as both a primary and a supplementary therapy, while limited safety regulation raises safety concerns.

In North America, CAM is generally part of holistic care. One study indicated that 30% of caregivers used CAM for children with epilepsy, while 43.0% expressed future interest, frequently citing dissatisfaction with traditional therapy.²⁸ Another indicated that about 27.0% of patients had tried CAM.²⁹ CAM in North America is usually used alongside AEDs. Thus, CAM practices varied across locations according to culture, accessibility, and beliefs. A detailed summary of the prevalence rates and motivations for CAM use is presented in Table 1.

Types and Reasons for CAM Use

Whole Medical Systems include conventional techniques like homeopathy, which is used by 4.7% of Turkish users and 67.0%

Table 1. Prevalence and motivation for CAM use among PWE (2015-2024)

References	Population (n)	• Method • Study design • Data collection	• Prevalence (%) • n	Motivations to use CAM (%)	Country	Comments/key findings
Asadi-Pooya et al. ¹⁴	PWE ≥ 18 years (n=101)	• Cross-sectional • Tool: - CIM perceptions and usage	• 70.0% • n=71	• N/A	Iran	Strong belief in CAM, but actual usage rate unknown.
Gündüz Oruç et al. ¹⁵	PWE 18 to 70 years (n=101)	• Cross-sectional • Tools: - Use of CIM for epilepsy - Morisky medication adherence scale	• 20.8% • n=21 - 17.8% (used 1 CIM) • 3.0% (used 2 CIM)	• To improve general health (11.9%). • To control the seizure (8.9%).	Türkiye	Lower CAM use percentage compared to other Turkish studies.
Özer et al. ¹⁶	PWE ≥ 18 years (n=150)	• Cross-sectional • Tools: - Fatalism Scale - Holistic Complementary and Alternative Medicine Questionnaire - Eight-item Morisky Medication Adherence Scale	• 82.0% • n=123	• N/A	Türkiye	Highest prevalence of CAM use reported (among all the articles in this review).
Tan and Kavurmaci ¹⁷	PWE ≥ 18 years (n=96)	• Cross-sectional • Tools: - Questions related to epilepsy - Use of CAM	• 76.0% • n=73	• To complement medical treatment (86.4%). • To support epilepsy management (77.0%). • To reduce the frequency of seizures (54.1%). • To provide care and treatment (51.0%). • To eliminate seizures (25.0%).	Türkiye	CAM widely used alongside conventional treatment.
Duzgun et al. ¹⁸	PWE ≥ 18 years (n=135)	• Cross-sectional • Tools: - Clinical characteristics - CAM use - Knowledge and opinions of CAM methods - Perception of Health Scale - Dispositional Hope Scale • Problem-Solving Inventory	• 29.0% • n=38	• Heard the success of CAM methods (39.4%). • Medical treatment failed (8.8%). • Concerns of the side effects of medical treatments (10.0%). • CAM methods are safer (17.6%). • Physician advice (24.1%). • More in line with the beliefs (42.9%). • Natural (34.7%). • Hope it might cure (28.6%). • Family members/acquaintances wanted (28.6%). • Reduce and control frequency of seizures (22.4%). • To improve general health (18.4%). • No improvement in symptoms (10.2%).	Türkiye	Physician recommendations played a role in CAM adoption.
Can et al. ¹⁹	Parents of children with epilepsy <18 years (n=172)	• Descriptive and cross-sectional • Tools: - Use of CAM in the treatment for the children - Types of CAM - Effects of CAM • Source of information on CAM	• 28.5% • n=49	• To get rid of the disease (47.9%). • To reduce the symptoms of disease (49.3%). • Side effects of AEDs (24.7%).	Türkiye	Belief systems strongly influence CAM usage.
Ince et al. ²⁰	Parents of children with epilepsy <18 years, (n=219)	• Cross-sectional • Tools: - Epilepsy management - Types of CAM - Methods and frequency of use CAM - Reasons use CAM - Effects of CAM • Source of information on CAM	• 30.1% • n=66	• To get rid of the disease (47.9%). • To reduce the symptoms of disease (49.3%). • Side effects of AEDs (24.7%).	Türkiye	Parents sought complete disease resolution through CAM.
Hartmann et al. ²¹	Parents of PWE, <18 years (n=164)	• Prospective observational • Tools: - CAM use - Previous therapy	• 13.0% • n=21	• Desire to try every possible treatment option (95.0%). • CAM more natural (76.0%). • CAM has less side effects (81.0%). • Herbal and natural remedies are riskless (24.0%).	Germany	CAM seen as a last resort by parents seeking alternatives.

Table 1. Continued

References	Population (n)	Method • Study design • Data collection	Prevalence (%) • n	Motivations to use CAM (%)	Country	Comments/key findings
Bosak and Slowik ²²	PWE ≥ 18 years (n=473)	• Cross-sectional • Tools: - Types of CAM - Use of CAM - Source of information on CAM • Willingness of CAM in future	• 26.8% • n=127	• To improve general health (31.5%). • To control seizures (25.2%). • To counteract the side effects of AEDs (22.1%). • Natural and safe (21.2%).	Poland	Seizure control and general health were key concerns of CAM users.
Koh et al. ²³	PWE ≥ 18 years (n=146)	• Cross-sectional • Tool: - Access the usage of CAM amongst PWE	• 25.7% • n=36	• To try anything that help to alleviate the condition (86.1%). • Side effects AEDs (8.3%).	Malaysia	Symptom relief was the main reason for CAM use, while fewer users cited AED side effects as a concern.
Lau et al. ²⁴	PWE ≥ 18 years (n=61)	• Cross-sectional • Tools: - Practice of CAM • Beliefs about Medicine Questionnaire	• 42.6% • n=26	• Believed in CAM's efficacy (86.1%). • Satisfaction towards CAM (8.3%).	Malaysia	Higher satisfaction levels suggest strong belief in CAM effectiveness.
Farrukh et al. ²⁵	PWE ≥ 18 years (n=100)	• Cross-sectional • Tools: - Knowledge of CAM - Types and their perceived effectiveness of CAM - Attitude and practice of CAM • Malaysia Medication Adherence Scale	• 58.0% • n=58	• CAM is cheaper (62.1%). • CAM provides quick and additional belief (67.1%). • CAM was easily available (72.5%). • CAM provides a permanent cure (72.5%). • Use CAM due to fearing discomfort from allopathic medicines (76.4%). • CAM promotes self-healing (69.9%). • CAM providers give good information about CAM (67.6%).	Malaysia	High usage, mainly driven by affordability and accessibility.
Chen et al. ²⁶	PPE < 21 years (n=178)	• Cross-sectional • Tools: - Epilepsy characteristics and conventional care utilization - Knowledge and usage of CAMs by caregivers	• 27.5% • n=49	• More natural treatment (73.7%). • Fewer side effects than AEDs (71.1%). • Reduce side effects of prescribed AEDs (47.4%). • Less expensive than AEDs (21.1%). • May improve child's seizure control and slow seizure progression (55.3%). • Seizure completely recovers (15.8%).	Singapore	Parents preferred CAM due to safety concerns and hopes of seizure control.
Jeong et al. ²⁷	Parents of PWE < 19 (n=389)	• Cross-sectional • Tool: - Use of CAM in the past or present	• 77.3% • n=85	• N/A	Korea	High rate of CAM use among parents of children with epilepsy, but motivations remain unclear.
Beattie et al. ²⁸	Caregivers of children with epilepsy (n=225)	• N/A • Tools: - Information on religious beliefs and practices - Use of CAM	• 30.0% currently using CAM • 16.0% had used CAM • 43.0% to use in future • n=N/A	• Wanting to try other -prescribed treatments (27.0%). • Believed that prescribed medications were harmful (5.0%). • Medication inefficacy (14.0%). • Alternative therapies were more consistent with their beliefs (2.0%). • CAM methods worked for others (9.0%).	United States	Strong intention for future use, suggesting dissatisfaction with standard treatment.
Kenney et al. ²⁹	Parents of child with epilepsy (n=107)	• Cross-sectional • Tools: - Use CAM or not and the efficacy - Intend to continue the use of CAM	• 34.6% (used 1 CAM) • n=37 • 4.0% (used 3 or more CAM) • n=13	• N/A	United States	Limited data on motivations for CAM use.

CAM: Complementary and alternative medicine, PWE: People with epilepsy, CIM: Complementary and integrative medicine

of users in Germany.^{18,21} Systems such as Ayurveda, TCM, Malay medicine, and Indian medicine are reported by 6.9%-25.0% of Malaysians.^{23,25}

Mind-body approaches focus on spiritual and psychological well-being. Prayer and faith healing were extensively employed, with prevalence ranging from 38.4% in Malaysia to 88.0% in the U.S.^{15,18,23,24,28} Use of yoga for stress alleviation ranged from 19.0% in Germany to 30.6% in Malaysia.^{21,23} Meditation, hypnosis, and music therapy varied in popularity, with meditation being common among those seeking relaxation.^{18,26}

Biologically based practices involve herbal medicines, diets, and supplements. Herbal medicine was reported by 25.6% of Turkish users and 67.0% of German users.^{18,21} Dietary therapy ranged from 18.8% in Iran to 36.1% in Malaysia.^{14,23} Supplement use, including vitamins and minerals, ranged from 30.0% to 45.0%.^{20,25}

Manipulative and body-based therapies include physical therapies, such as massage therapy, ranging from 45.3% in Türkiye to 58.3% in Malaysia.^{16,23} Chiropractic care was used by 10.0%-25.0% of participants, mainly in Germany and Malaysia.^{21,25} Osteopathy, more widespread in the West, was reported by up to 57.0% of German users.²¹ Other therapies included cupping (18.6%-27.3% in Türkiye) and reflexology.^{16,23}

Energy therapies involve controlling energy fluxes. Prevalence of acupuncture use ranged from 6.3% in Iran to 47.2% in Malaysia.^{14,23} Reiki was employed by 27.8% in Malaysia and other energy healing was employed by 31.5% in Poland.²² These categories

demonstrate diverse global usage and summary of CAM types and their prevalence is shown in Table 2.

Sources of CAM Information

Most PWE learned about CAM from family and friends, a process influenced by shared experiences and cultural norms.^{15,28} Trust in social networks typically surpassed trust in expert guidance. Healthcare experts held conflicting views: some endorsed CAM as a supplement, while others highlighted safety concerns.^{18,23} Online outlets and social media were major information sources, but were prone to misrepresentation.^{22,24} Traditional healers and religious authorities strongly promoted faith-based approaches, such as prayer and Quranic healing.^{28,29} Self-experimentation was also reported, particularly among those unsatisfied with traditional therapy.^{19,25} Social, cultural, and healthcare access issues largely affected CAM decisions.

Perceived Effects of CAM Use

Positive Effects

Some interventions, such as acupuncture, relaxation techniques, and dietary adjustments, were associated with greater seizure control and stress reduction. Among TCM users, acupuncture appeared to reduce seizures.²⁷ Other consumers reported lower anxiety and greater well-being.^{21,22}

The ketogenic and modified Atkins have demonstrated anticonvulsant potential. Many Malaysian CAM users reported

Table 2. Types of CAM used in epilepsy

Category	Types of CAM used (%)	Related studies	Comments/key findings
Whole medical systems	• TCM (13.7%) • Traditional Indian medicine (6.9%) • Traditional Malay medicine (12.0%) • Ayurveda (25.0%) • Homeopathy (4.7%-67.0%) • Meditation (2.3%-12.8%) • Yoga (19.0%-30.6%)	18,21-25	Traditional practices such as TCM, Ayurveda, and homeopathy show varied usage across regions.
Mind-body techniques	• Prayer/faith-based healing (38.4%-88.0%) • Relaxation techniques (10.2%-43.8%) • Hypnotherapy (12.8%-26.7%) • Music therapy (6.1%-30.6%) • EEG biofeedback (22.0%)	15-19,21-24,26,28	Faith-based healing is the most common, while meditation and hypnotherapy have lower usage.
Biologically based practices	• Herbal medicines/traditional herbs (25.6%-67.0%) • Dietary supplements (32.3%-46.9%) • Diet therapy (10.2%-36.1%) • Massage therapy (6.1%-58.3%) • Reflexology (27.3%) • Cupping (18.6%)	14-18,20-25	Herbal medicine and dietary supplements are the most commonly used biological treatments.
Manipulative and body-based therapies	• Physiotherapy (13.7%) • Chiropractic (<7.0%-25.0%) • Spa/thermal therapy (34.0%) • Osteopathy (57.0%)	16,18,19,21-25,28	Massage therapy is widely used, while chiropractic and cupping therapy have lower prevalence.
Energy therapies	• Acupuncture (6.3%-47.2%) • Reiki (27.8%) • Energy healing (4.8%-31.5%)	14-16,18,22-26	Acupuncture is the most practiced, while Reiki and energy healing are less commonly used.

CAM: Complementary and alternative medicine, TCM: Traditional Chinese medicine, EEG: Electroencephalography

finding it beneficial and regarded it as curative.²⁵ Herbal medicines and spiritual practices were also considered to support emotional well-being.^{18,23,28}

Negative Effects

Despite perceived benefits, concerns include delays in therapy or discontinuation of AEDs. Some studies have linked CAM use to poorer seizure control and increased emergency admissions owing to AED withdrawal.^{14,16,25} False beliefs that CAM is a sole cure diminished adherence to medications.^{18,28}

The lack of scientific validation and regulation also poses challenges. Herbal therapies can interact adversely with AEDs, reducing their effectiveness or increasing their side effects.^{15,23} Studies have reported a decrease in seizure control associated with unsupervised herbal use.²²

Caregivers of children often turned to CAM out of concern about the adverse effects of AEDs, despite insufficient clinical evidence.^{28,29} Misinformation and limited awareness of the hazards of CAM may delay appropriate medical care when CAM is preferred over conventional treatment.¹⁷ A summary of the perceived effects of CAM use is presented in Table 3.

DISCUSSION

This research highlights the widespread use of CAM among PWE, primarily in response to perceived limitations of conventional epilepsy therapies. Many patients sought CAM because of dissatisfaction with AEDs, concerns about side effects, and cultural or spiritual beliefs. While CAM is typically used alongside AEDs, some individuals accept it as a substitute, raising issues regarding treatment adherence, delays in medical intervention, and patient safety.^{30,31} The expanding popularity of CAM underscores the need to critically analyse its impact on patient outcomes, physician-patient communication, and health policy.

A particularly striking conclusion was that healthcare providers recommended CAM. This undermines the prevailing notion that clinicians often discourage its use. Instead, it shows a lack of clearly defined clinical criteria, which may cause clinicians to acknowledge CAM without properly evaluating its benefits and risks.¹⁸ Many patients perceived CAM as a more natural and safer alternative to AEDs, making it an attractive option for controlling epilepsy.^{32,33} Although these views are typically rooted in valid concerns about AED side effects, misconceptions about the safety and effectiveness of CAM may lead to poorly informed treatment decisions, especially when CAM is taken without medical supervision.

Social and cultural forces also play a considerable role in CAM use. Many PWE rely on guidance from family members, religious leaders, or online sources rather than on medical experts.³⁴⁻³⁶ In certain communities, epilepsy is regarded as a supernatural or spiritual ailment, leading individuals to seek traditional or faith-based therapies. While these treatments may offer emotional support, they typically lead to delays in seeking medical care, worsen seizure control, and raise the likelihood of poor outcomes. To bridge the gap between traditional practices and evidence-based care, culturally relevant instructional initiatives are needed.

Despite these issues, many patients use CAM in addition to, rather than as a substitute for, traditional therapy. This integrated strategy indicates confidence in the complementary benefits of CAM, especially given perceptions that CAM has fewer adverse effects than AEDs.^{18,28,32} Some interventions, such as the ketogenic diet, have demonstrated therapeutic potential; however, many others remain uncontrolled and may pose considerable dangers, including drug interactions and variable dosing.³⁷

A key issue is the delay in initiating conventional therapy among patients who prioritize CAM. Research has indicated that people who postpone AED use in favour of CAM often experience poorer seizure control, increased hospitalization, and avoidable

Table 3. Perceived effects of CAM use in epilepsy

	Perceived effect	Findings from studies	Related studies	Comment
Positive effects	Symptom and well-being	Stress reduction, seizure control in TCM users.	27	CAM could improve quality of life via symptom and well-being.
	Stress and anxiety reduction	CAM users reported less anxiety and stress, pursuing CAM for overall health enhancement.	21,22	CAM is perceived as beneficial for mental well-being.
	Dietary benefits	Ketogenic diet shows anti-convulsant properties.	25	Some CAM approaches could be beneficial.
	Emotional well-being	Herbal medicine and spiritual healing are commonly viewed as enhancing well-being, reinforcing CAM's appeal.	18,23,28	CAM is often chosen for psychological comfort and cultural reasons.
Negative effects	Dissatisfaction of AEDs and poor seizure control	Increased seizures due to AED discontinuation.	14,16,25	Worsened epilepsy was a negative consequent.
	False in cure belief	Some PWE believe CAM alone provides a permanent cure, contribution to medication non-adherence and higher seizure recurrence rates.	18,28	Misconceptions about CAM impact treatment adherence.
	Herb-drug interactions	Unregulated herbal medicine has resulted in side effects of AEDs.	15,23	CAM should be regulated for safety.
	Treatment delay	CAM use before AEDs treatment has led to prolonged seizure episodes.	17,28-29	Late access to medical care increase.

CAM: Complementary and alternative medicine, TCM: Traditional Chinese medicine, AED: Antiepileptic drug

consequences.^{14,16} In extreme situations, some patients completely discontinue AEDs under the false belief that CAM offers a cure, thereby increasing the risk of seizure recurrence and life-threatening events.^{18,28} The increased use of herbal medicines further complicates epilepsy care, as unregulated herbal medicines may interfere with AED metabolism, lower therapeutic efficacy, or cause toxicity.^{15,23} These hazards underscore the importance of physician involvement in discussions about CAM to dispel misconceptions while preserving patient autonomy.

To address these issues, improved physician-patient communication is essential.^{38,39} Patients must have access to reliable, evidence-based information regarding CAM, and clinicians must be trained to address CAM knowledgeably and respectfully. Public health campaigns should also aim to address CAM-related disinformation, especially on social media platforms, where untested treatments are widely promoted.³⁶ Integrating CAM information into medical training will enhance physicians' ability to assist patients in making safer, more effective treatment choices.³⁴

Going forward, efforts should focus on strengthening CAM regulation, increasing public understanding, and enhancing healthcare providers' engagement in CAM-related debates. More rigorous clinical research is necessary to investigate the safety and efficacy of routinely used CAM therapies, particularly when coupled with AEDs. Health authorities must also adopt stringent quality-control standards for herbal and other alternative medicines to limit the hazards associated with self-medication and unregulated products.^{15,21} Through a coordinated approach incorporating teaching, research, and regulatory supervision, healthcare systems can ensure that CAM is used appropriately and does not impair the quality of epilepsy care.

Study Limitations

This narrative review has several limitations. Limiting the search to three databases (Scopus, ScienceDirect, and PubMed) may have resulted in omission of pertinent studies from other sources. The emphasis on English-language publications may have excluded related studies in other languages, thereby impacting the thoroughness of the conclusions. The review predominantly focuses on the viewpoints of PWE, their parents, and caregivers and excludes comments from healthcare providers, CAM practitioners, and legislators. Understanding these holistic perspectives is crucial for enhancing physician-patient communication, strengthening policies, and incorporating CAM into clinical practice. As qualitative narrative review, our paper synthesises findings descriptively rather than providing quantitative analyses of statistical patterns, therapeutic efficacy, or cost-effectiveness. This review has identified significant gaps and potential avenues for future research, providing essential insights into the motivations, hazards, and obstacles associated with CAM use among patients with epilepsy.

CONCLUSION

The use of CAM among PWE is widespread across various regions, driven by dissatisfaction with AEDs, cultural traditions, and the pursuit of holistic and natural health approaches. Herbal therapies, faith-based healing, mind-body interventions, and dietary modifications were the most commonly utilized CAM

modalities. While many patients reported benefits such as stress reduction and perceived seizure control, significant risks, including delayed access to medical care, medication non-adherence, and herb-drug interactions, were identified. These findings underscore the importance of healthcare providers actively engaging in open discussions with patients regarding CAM use to ensure informed decision-making and adherence to evidence-based treatments. Public health initiatives should address the spread of misinformation, promote culturally sensitive education, and advocate for better regulation of CAM products. Future research should focus on rigorous evaluation of the safety and efficacy of commonly used CAM therapies in epilepsy management. By addressing these critical challenges, healthcare systems can support the safer integration of CAM practices without compromising the treatment outcomes in patients with epilepsy.

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For transparency, the authors note that an artificial intelligence-assisted language model (ChatGPT, OpenAI) was utilized to support text editing and language correction. This assistance was limited to linguistic refinement; all scientific content, critical analysis, and final editorial decisions were made exclusively by the authors.

Footnotes

Authorship Contributions

Concept: S.N.A.M.N., U.I.I., P.L.L., Design: S.N.A.M.N., U.I.I., P.L.L., Analysis or Interpretation: S.N.A.M.N., U.I.I., P.L.L., Literature Search: S.N.A.M.N., U.I.I., P.L.L., Writing: S.N.A.M.N., U.I.I., P.L.L.

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