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SCIENCE DIRECT
Epilepsy & Behavior 8 (2006) 620–624
Epilepsy & Behavior
www.elsevier.com/locate/yebeh

Factors contributing to the use of complementary and alternative medicine by people with epilepsy

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Received 6 December 2005; revised 18 January 2006; accepted 26 January 2006
Available online 10 March 2006

Abstract

We evaluated the factors that influence the use of complementary and alternative medicine (CAM) by people with epilepsy. Two hundred forty-six people were recruited from an outpatient clinic. Data on CAM utilization in the past 5 years as well as in the near future were collected via face-to-face structured interviews, and the factors contributing to CAM use were determined by multivariate analysis. About one-third of the participants (31.3%) reported using CAM in the past 5 years, and an equal number (30.5%) were willing to use CAM in the future. CAM use in the past was independently related to gender, economic status, and a belief in the safety of CAM use, whereas CAM use in the near future was independently associated with experience with CAM use in the past and a belief in the safety of CAM use.

Keywords: Complementary and alternative medicine; Epilepsy

1. Introduction

In one form or another, complementary and alternative medicine (CAM) is used worldwide. In developed countries, interest in CAM has grown rapidly over the last decade [1–3], although CAM use is generally more common in developing than in developed countries. The use of CAM may be influenced by cross-cultural differences and medical care systems. Developing countries have traditional systems of medical care, which compete with or complement Western-style scientific medicine, whereas developed countries have a unitary system of science-based medicine with CAM at the fringe [4]. CAM users in developed countries also consider themselves more likely to take risks than CAM nonusers [5]. Generally, however, people in developing countries do not have a negative attitude toward traditional CAM [6–8].

Despite the global popularity of CAM, data on CAM use are limited, especially with respect to people with epilepsy [4,9–11]. Several previous studies have suggested that CAM users differ from nonusers in sociodemographic and health characteristics. In particular, CAM use was significantly associated with several variables, including female gender, middle age, race, high education level, and high income [1,2,9–13]. Most of these studies, however, evaluated CAM use using univariate analysis. We have therefore used multivariate analysis to determine the factors contributing to CAM use in the past and in the near future by people with epilepsy.

2. Patients and methods

2.1. Patients

All patients participating in the study were consecutively recruited from the epilepsy outpatient clinic at Asan Medical Center. Patients were required to be older than 15, to have a positive diagnosis of epilepsy, and to have had epilepsy for at least 1 year. Patients were excluded if they had progressive neurological disorders or active psychiatric or medical disorders. Written informed consent was obtained from all patients or their guardians.

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doi:10.1016/j.yebeh.2006.01.020

2.2. Methods

Data regarding the utilization of CAM were collected in face-to-face structured interviews with patients and adult members of their families, which were conducted by a single nurse specializing in epilepsy. Missing data were occasionally obtained by telephone. CAM was defined as medical interventions not taught widely at U.S. medical schools or generally available at U.S. hospitals [12]. All participants were asked if they had used CAM during the previous 5 years, if they were willing to use CAM in the near future, and if they believed CAM was safe. If they had used CAM in the past, they were asked questions regarding the types of CAM used, the degree of satisfaction, the perceived effectiveness and adverse effects of CAM, their access to CAM, and their reasons for using CAM. Clinical information obtained from the patients and their medical records included age, gender, level of education, marital status, religion, economic status, age at onset of epilepsy, epilepsy classification, epilepsy duration, frequency of seizures, and antiepileptic drugs used.

Data were analyzed with SPSS Version 11.5. All independent variables were correlated with the dependent variable: the presence or absence of CAM use in the previous 5 years. The χ^2 test and Student's t test were used for univariate analyses. Subsequently, multivariate analysis using logistic regression was performed on variables that were significant ($P < 0.05$) in univariate analysis. Factors contributing to CAM use in the near future were statistically evaluated using the same procedure. The significance level (P) was set at 0.05.

3. Results

3.1. General characteristics of participants

Demographic and clinical characteristics of the 246 patients in the study are summarized in Table 1. Of the 246 participants, 77 (31.3%) had used CAM in the last 5 years. Of the 77 CAM users, 9 (11.7%) had used CAM in the past 3 to 5 years, 18 (23.4%) in the past 1 to 3 years, and 29 (37.6%) in the past 1 year. At the time of the survey, 21 (27.3%) were using CAM.

3.2. Factors contributing to CAM use in the previous 5 years

Univariate analyses showed that several variables were significantly associated with past CAM utilization, including male gender, younger age, shorter duration of epilepsy, higher level of education, higher economic status, and the belief that CAM use was safe (Table 2). Logistic regression analysis revealed that the three factors independently associated with past CAM use were male gender ($P < 0.05$, OR = 2.3, 95% CI = 1.1–4.9); higher economic status ($P < 0.05$, OR = 2.5, 95% CI = 1.2–5.0); and the belief that CAM use was safe ($P = 0.001$, OR = 1.9, 95% CI = 1.3–2.9).

3.3. Factors contributing to willingness to use CAM in the near future

Of the 246 participants, 75 (30.5%) expressed a willingness to use CAM in the near future. Univariate analyses showed that several variables were significantly associated with CAM use in the near future, including experience with CAM use in the past, higher economic status, and the belief that CAM use was safe (Table 3). Logistic regression analysis revealed that the two factors independently associated with CAM use in the near future were experience with CAM use in the past ($P < 0.001$, OR = 8.4, 95% CI = 4.0–17.7) and the belief that CAM use was safe ($P < 0.01$, OR = 1.7, 95% CI = 1.2–2.6).

Table 1
Demographic and clinical features of 246 Korean people with epilepsy[a]

Gender	
Male	132 (53.7)
Female	114 (46.3)
Age	33.6 ± 11.2
Age at seizure onset	19.1 ± 12.1
Seizure duration (years)	14.5 ± 10.0
Epilepsy classification	
Idiopathic generalized	17 (6.9)
Symptomatic or cryptogenic partial	204 (82.9)
Lennox–Gastaut syndrome	3 (1.2)
Undetermined	22 (8.9)
Seizure frequency	
⩾1/month	68 (27.6)
1–11/year	84 (34.1)
<1/year	94 (38.2)
Antiepileptic drug treatment	
Monotherapy	127 (51.6)
Polytherapy	119 (48.4)
Neurological status	
Normal	229 (93.1)
Abnormal	17 (6.9)
Education level	
Primary or middle school	76 (30.9)
High school	103 (41.9)
University	67 (27.2)
Marital status	
Unmarried	127 (51.6)
Married	112 (45.5)
Divorced	7 (2.8)
Religion	
Protestant/Catholic	53 (21.5)
Buddhism	31 (12.6)
None	159 (64.6)
Economic status	
High	57 (23.2)
Middle	160 (65.0)
Low	29 (11.8)
Opinion on safety of CAM	
Safe	76 (30.9)
Dangerous	40 (16.3)
Doubtful	130 (52.8)

[a] Data are expressed as N (%) or means ± SD.

3.4. Patterns of CAM use

Of the 77 participants who had used CAM in the previous 5 years, 52 (67.5%) reported that they did so to enhance general health, 22 participants (28.6%) reported that they did so to control seizures, and 3 (3.9%) reported that they did so to reduce the adverse effects of antiepileptic drugs.