Assistant Professor Dr Muhammad Junaid Farrukh
Head of Praxis, Industry and Community Engagement (PICE)
Faculty of pharmaceutical sciences
Email : junaid@ucsiuniversity.edu.my
Handphone : +601127620943

Farrukh *et al. BMC Complementary Medicine and Therapies* (2021) 21:50
https://doi.org/10.1186/s12906-021-03224-2

BMC Complementary Medicine and Therapies

RESEARCH ARTICLE Open Access

Impact of complementary and alternative medicines on antiepileptic medication adherence among epilepsy patients

Muhammad Junaid Farrukh[1,2], Mohd Makmor-Bakry[1*], Ernieda Hatah[1] and Tan Hui Jan[3]

Abstract

Background: The aim of this study was to assess the knowledge, attitude, and practice of complementary and alternative medicine (CAM) and its impact on antiepileptic drug (AED) adherence among patients with epilepsy.

Methods: A cross-sectional study was carried out on 100 epilepsy patients, aged 18 years or older that did not have any physical or psychiatric illness. A patient-administered questionnaire was used to assess their knowledge, attitude towards, practice, and perceived effectiveness (KAPP) of CAM. Established adherence assessment tools were used to determine patient medication adherence.

Results: The prevalence of CAM usage was found to be at 58%. CAM was used more frequently by males ($n = 32$, 60.4%) than by females ($n = 26$, 55.3%; $p = 0.609$). The most commonly used CAM included vitamins and minerals (36%), ginseng (16%), antioxidants (15%), and acupuncture (12%). A significant number of patients had low knowledge of (59%) and a positive attitude (54%) toward complementary and alternative medicine. Main reasons for using CAM were a lower price, better availability, and inadequate seizure control by AEDs. About 43% of the patients who used CAM informed their doctor. Prevalence of non-adherence to AED therapy was found to be 68%. A significant association was found between non-adherence and CAM usage ($p < 0.01$).

Conclusion: A high prevalence of CAM usage and non-adherence to AEDs among epilepsy patients was identified. CAM usage was associated with a non-adherence to AED therapy. This study highlights the need to explore CAM usage with patients before making clinical decisions to achieve the best outcomes from AED therapy.

Keywords: Medication adherence, AED, Epilepsy, Complementary and alternative medicine, Supplements

Contents lists available at ScienceDirect

Saudi Pharmaceutical Journal

journal homepage: www.sciencedirect.com

Original article

Medication adherence status among patients with neurological conditions and its association with quality of life

Muhammad Junaid Farrukh[a,c,*], Mohd Makmor Bakry[a,*], Ernieda Hatah[a], Tan Hui Jan[b]

[a] Faculty of Pharmacy, Universiti Kebangsaan Malaysia, Kuala Lumpur, Malaysia
[b] Faculty of Medicine, Pusat Perubatan Universiti Kebangsaan Malaysia (PPUKM), Malaysia
[c] Faculty of Pharmaceutical Sciences, UCSI University, Kuala Lumpur, Malaysia

ARTICLE INFO

Article history:
Received 26 October 2020
Accepted 3 April 2021
Available online 17 April 2021

Keywords:
Adherence
Quality of life
Non-adherence
Neurological disorders
Chronic diseases

ABSTRACT

Background/Aim: Medication non-adherence may cause significant morbidity and mortality in patients with chronic diseases and may increase the economic burden on the healthcare system. The prevalence of neurological disorders is increasing in Malaysia; however, comprehensive data on medication adherence among Malaysian patients with these disorders is limited. This study was conducted to determine the association of medication non-adherence with quality of life in patients with neurological problems.

Methods: A cross-sectional survey was performed in 370 patients diagnosed with epilepsy, Parkinson's disease, stroke and Alzheimer's disease at Neurology clinic. Patients aged 18 years or older, without documented physical or psychiatric illness such as schizophrenia and major depression, were included. Patient-administered questionnaires, such as the Malaysian Medication Adherence Scale and Medication Possession Ratio were used to determine medication adherence. An established EQ-5D-3L questionnaire was used to determine quality of life. Data were analysed using descriptive and inferential analysis.

Results: The overall prevalence of medication non-adherence among patients with neurological disorders was 59.2%. Among these neuromedical diseases, 69.2% ($n = 9/13$) of Alzheimer's disease, 66.7% ($n = 98/147$) of epilepsy, 62.1% ($n = 36/58$) of Parkinson's disease and 48.7% ($n = 74/152$) of stroke patients were found non-adherent. There was a significant difference in EQ-5D index scores ($p = 0.041$) between adherent and non-adherent patients.

Conclusion: A high prevalence of medication non-adherence was found among patients with neurological disorders. The rate of non-adherence varied among different neurological conditions. There was a significant difference in quality of life between adherent and non-adherent patients.

Areas of Industrial Collaboration

- Medication adherence
- Complementary and alternate medicine
- Neurological disorders
- Endocrine disorders

Community Service Projects

- Know Your Medicine
- UCSIPharmcare

Awards and Recognitions

- Gold Award at the Malaysia Technology Expo 2021
- Recipient of RM 38,500 internal research grants
- Editorial Board Member of the PLOS One Journal

UCSI University