Complementary Therapies in Medicine 35 (2017) 115–119

Contents lists available at ScienceDirect

Complementary Therapies in Medicine

journal homepage: www.elsevier.com/locate/ctim

Complementary and alternative medicine use among elderly patients living with chronic diseases in a teaching hospital in Ethiopia

Asnakew Achaw Ayele[a,*], Henok Getachew Tegegn[a], Kaleab Taye Haile[b], Sewunet Admasu Belachew[a], Amanual Getnet Mersha[c], Daniel Asfaw Erku[a]

[a] Department of Clinical Pharmacy, School of Pharmacy, University of Gondar, Ethiopia
[b] Department of Pharmaceutics and Social pharmacy, School of Pharmacy, University of Gondar, Ethiopia
[c] Department of Obstetrics and Gynecology, School of Medicine, University of Gondar, Ethiopia

ARTICLE INFO

Keywords:
Complementary and alternative medicine
Chronic disease
Elderly
Ethiopia

ABSTRACT

Background: The use of complementary and alternative medicine (CAM) among patients with chronic diseases has grown rapidly worldwide. Yet, little has been known about CAM use by elderly patients with chronic diseases in Ethiopia. This study aimed at assessing the prevalence and reasons for CAM utilization among elderly patients living with chronic diseases in Ethiopia.

Methods: An institution-based quantitative cross-sectional survey was conducted among elderly patients with chronic disease attending outpatient ambulatory clinics of University of Gondar referral and teaching hospital (UoGRTH). An interviewer-administered and semi-structured questionnaire were utilized to collect the data.

Result: Of the total respondents, 240 (74%) reported the use of CAM, with herbal medicine and spiritual healing being the most commonly utilized CAM modalities (50.4% and 40.8% respectively). Dissatisfaction with conventional therapy (40.8%) and belief in the effectiveness of CAM (30.8%) are the most commonly cited reasons for the use of CAM therapies. Rural residency, higher educational status, higher average monthly income and presence of co-morbidity were positively associated with the use of CAM.

Conclusion: This survey revealed a higher rate of CAM use among elderly patients with chronic diseases, along with a very low rate of disclosing their use to their health care providers. Special attention should be given for these patient population due to the potentially harmful interaction of different herbal remedies with the prescribed medications, thereby predisposing the patient to untoward adverse effects and compromised overall health outcome.

1. Background

In Ethiopia, chronic diseases such as cardiovascular disorders, diabetes mellitus, chronic obstructive pulmonary disease and cancer are growing in alarming rate, with a higher proportion of morbidity and mortality.[1] In 2011, World Health Organization (WHO) estimated that more than 30% of the population in Ethiopia is suffering and/or dying from chronic diseases, with a national prevalence of cardiovascular disease close to 15% and around 4% of the population estimated to have cancer or chronic obstructive pulmonary disease.[2] The number of patients living with diabetes is also increasing alarmingly with a national prevalence close to 6.5%.[3]

As a result of the chronic nature of the disease and the difficulties in adhering to the treatment modalities, many elderly people living with chronic conditions sought to manage their disease through the use of CAM modalities. Herbal medicine use, among others, is the most popular CAM modalities and practiced by many chronically ill patients around the globe.[4]

Studies conducted in various regions of the globe documented that individuals with arthritis, cancer, cardiovascular disease and chronic obstructive pulmonary disease were more likely to have used CAM therapies in the past one year.[5–7] A higher magnitude of CAM use in adult patient population including hypertension and cancer are also reported in various regions of Ethiopia.[8,9] Majority of the population in Ethiopia use CAM therapies, largely due to its cultural acceptability and ease of access.[10] In addition, patients may use CAM modalities so as to boost their immunity and improve overall health condition.[8]

Majority of elderly patients are susceptible to drug–drug interactions due to a high pill burden and their CAM use may potentially interact with a prescribed medication and result in ineffective disease

* Corresponding author at: Department of Clinical Pharmacy, School of Pharmacy, University of Gondar, Ethiopia Lideta kebele 16, P.o.Box: 196, Gondar, Ethiopia.
E-mail addresses: asnake.21.uog@gmail.com (A.A. Ayele), heniget@gmail.com (H.G. Tegegn), teezysam@gmail.com (K.T. Haile), sewunet.admasu@gmail.com (S.A. Belachew), amanuelget16@gmail.com (A.G. Mersha), staymotivated015@gmail.com (D.A. Erku).

http://dx.doi.org/10.1016/j.ctim.2017.10.006
Received 28 July 2017; Received in revised form 13 October 2017; Accepted 26 October 2017
Available online 27 October 2017
0965-2299/

state management. Yet, data on the use and of CAM among elderly people living with chronic diseases in Ethiopia is not available. The present study aimed at exploring the prevalence and factors associated with the CAM use among elderly people living with chronic diseases attending outpatient clinic of UoGRTH, Ethiopia

2. Methods

2.1. Study design

Institutional-based quantitative cross-sectional survey was conducted on elderly patients with chronic diseases who visited the outpatient clinics of UoGRTH. The hospital is located in Gondar town, northwest Ethiopia, 738 km away from Addis Ababa and it the only referral and teaching center in the area to which majority of patients with chronic diseases including hypertension, diabetes mellitus, cancer and asthma are referred. The study was conducted from October to November 2016. This study was approved by the ethical review committee of school of Pharmacy, University of Gondar. Oral informed consent from the participants were also secured before conducting this study.

2.2. Population and sampling

All elderly (≥65 years) patients with chronic non-communicable disease who had been diagnosed with either of the following; cancer, hypertension, diabetes mellitus and asthma for at least 1 year prior to recruitment and who visited the outpatient clinic of UoGRTH from October 1 to November 30, 2016 for follow-up and medication refill were asked to participate. We chose the 2-month follow-up period for data collection to avoid duplication of the cases as patients return to the clinic every 2 months. A total of 369 patients were included in the study using a systematic sampling procedure.

2.3. The questionnaire

Data was collected by two of the principal investigators through interviewer-administered questionnaire. The tool was created by modifying items used in previous similar studies,[8,9] and items were thoroughly reviewed for relevance by a team of experts including public health experts and clinical pharmacist. The tool was further validated by pre-testing on 32 elderly patients with chronic non-communicable disease, who were not included in the final analysis, and relevant modifications were done before the commencement of the study. The final tool includes questions regarding the socio-demographic and treatment characteristics and items assessing the use of CAM, source of information and disclosure of CAM use to the health care providers. The following five CAM modalities were given to patients choose from; traditional herbal remedies, special foods (which includes honey, black seed, ginger or others), a variety of dietary supplements and spiritual healing (prayers, fasting, lighting candles, consuming holy water). Routine meal preparations and those that are taken as nutrients such as vitamins were excluded.

2.4. Statistical analysis

All statistical analyses were done using Social Sciences (SPSS) software version 21.0 for Windows (SPSS Inc., Chicago, IL). Frequencies and percentages were used to express different variables. Univariate analysis and multivariate logistic regression analysis were used to determine factors associated with CAM use. The results were adjusted for patients' demographic and clinical characteristics. OR with 95% CI were also computed along with corresponding *p*-value ($p < 0.05$) as cut off points for determining statistical significance.

Table 1
Socio-demographic characteristics and factors associated with CAM use among respondents, N = 324.

Variables	CAM users, N = 240	Non-CAM users, N = 84	*p-value*	Multivariate logistic regression
				CAM-users vs. CAM non-users
				AOR (95%CI)
Age in groups			0.031*	
65–69	91	32		–
70–74	59	27		–
75–79	45	12		–
80–84	28	5		–
> 85	17	8		–
Gender			0.021*	
Male	106	36		1
Female	134	48		0.43 (0.28–1.43)
Residence			0.032*	
Urban	81	39		1
Rural	159	45		3.42 (1.66–6.53)
Educational status			0.012*	
Unable to read and write	98	33		1
Primary	62	21		1.73 (0.41–3.04)
Secondary	59	16		2.44 (1.62–5.17)
Tertiary education	21	14		2.71 (1.64–4.51)
Marital status			0.331	
Single	19	9		–
Ever married	221	75		–
Average monthly income (in USD)			0.013*	
< 100	154	45		1
100–150	55	29		1.57 (1.32–4.42)
> 150	31	10		2.46 (1.52–5.82)
Employment status			0.273	
Self-employed	52	32		–
Government-employed	21	15		–
Unemployed	157	37		–
Type of chronic disease			0.431	
Hypertension	88	26		–
Dyslipidemia	37	23		–
Diabetes mellitus	77	19		–
Chronic kidney disease	38	16		–
Presence of co-morbidity			0.001*	
No	156	52		1
Yes	84	32		2.44 (1.61–5.66)

3. Results

Out of 369 elderly patients with chronic non-communicable disease invited to participate, 324 of them completed the survey giving a response rate of 87.8%. Over half of the respondents (56.2%) were female and40.4% of the participants were illiterate (unable to read and write). The socio-demographic characteristics and factors associated with CAM use are summarized in Table 1.

3.1. Prevalence and factors associated with CAM use

Out of the total respondent, 240 (74%) used some form of CAM whilst 84 (26%) were non-users. Various demographic and clinical variables were tested if they were associated with CAM use and those variables with a p-value of greater than 0.20 were further examined in