

## Complementary and alternative medicine use in patients with arthritis in Saudi Arabia

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### Abstract

**Background:** There is limited data in regards to the prevalence of utilization the complementary and alternative medicine (CAM) till recent years among adults diagnosed with chronic diseases, for example, arthritis that are treated by practioner.

**Methods:** To assess the frequency and kinds of CAM treatment utilized by ladies and men with arthritis. We utilized delineated random selection to distinguish participants aged  $\geq 18$  years old through a questionnaire in Arabic among populations living in Saudi Arabia. The outcomes were presented as frequency and percentage.

**Results:** 405 participants of both genders ageing  $\geq 18$  year old finished the surveys. Women were representing 88% of them and 78% were Saudi. 44% of participants were illiterate, while 22% were secondary school but 34 % were college graduated. Majority of them were single 232 (75%), while 169 (42%) were married. Most of participants 371 (91%) did not having any special habits but 27 (7%) were smokers. Some of participants 157 (39%) did not utilize any CAM treatment, while 150 (37%) using vitamins and minerals. The study recorded 55(13%), 23(6%), 11(3%), 8 (2%) of participants were utilizing nutrional supplements, venepuncture, oral herbs, topical herbs respectively. A higher extent of ladies had weak joint pain on short term duration. In addition, a higher proportion of participants who did not finished their education, not utilizing CAM. The most common kind of CAM was vitamins and minerals (n = 150), inspite of some of participants (n=157) did not use any CAM treatment. There were 55 out of 405 participants utilizing nutrional supplements, and 23 out of 405 participants using venepuncture. Regarding to co-morbidities the most of participants did not complain of any other health problems 193 (47.65%). The most widely recognized co-morbidity was hypertension 69 (17%) then Diabetes 41 (10%). Our outcomes uncovered that 158 (39%) of non-graduated and 134 (33%) of collage graduated participants did not utilize CAM.

**Conclusion:** The arthritis patients utilized CAM to supplement conventional treatments. Health care suppliers should know about the high utilization of CAM and consolidate inquiries concerning its utilization into routine evaluations and treatment strategy.

**Keywords:** arthritis, CAM, complementary and alternative medicine, KSA

### Introduction

Arthritis is a chronic inflammatory autoimmune disease affecting joints and connective tissues. It is often painful and disables, and needs lifetime treatment [1]. Arthritis's Patients are usually diagnosed at the middle of age, despite the fact that affects all ages. There are wide co-morbidities, for example, cardiovascular diseases, muscular weakness, bony diseases, psychological disturbance and mutilations to personal satisfaction [2]. Arthritis is always associated with an increased burden on people and healthcare systems [3].

It was recorded that in excess of half of the arthritis's patients go to CAM to control its pain [4]. This high rate of CAM use by patients with arthritis may show that pain is the primary stimulus [5]. In addition, the wish to look for every on hand treatment, the motivation to take control of illness, and the off base thought that CAM doesn't convey any harm are connected factors [6]. Usually, patients decide to use CAM suggesting that the conventional therapies are consider to be less effective or more hazardous [7]. However, dissatisfaction with conventional therapies is not unavoidably the reason why patients go to CAM [8].

According to CAM practices, diverge across nations

Depending upon predominant

Traditions and the meaning of CAM [9]. In Western countries, relaxation techniques, medical massage therapy, acupuncture, yoga, meditation, and the utilization of ginseng and mineral supplements are the most commonly used kinds of CAM [9].

Later, Saudi Arabia was set up a center for complementary and alternative medicine by a ministerial ruling (No. 236) date 10/8/1429H (12/8/2008 G). The target of the center is to be a reference place for all issues related to CAM, to manage CAM practices within the healthcare services, and to utilize evidence based CAM in addition to conventional medications [10].

Establishing this center comes from that CAM practices are generally related to social, cultural and religious beliefs. The use of honey, camel milk, Zamzam water, olive oil, cupping and skin cauterization are commonly utilized for treating a wide range of sicknesses and diseases in Saudi Arabia frequently based upon Quran traditions and Sunnah (Prophet Muhammad, peace be upon him) [10]. This piece of work aims to describe the prevalence of use of CAM among individuals with chronic inflammatory arthritis in Saudi Arabia.

**Methods**

**Study design**

A cross-sectional study was led to accomplish our aims. Saudi and non-Saudi of both genders aged  $\geq 18$  years old reviewed during Sept. 2020 with a diagnostic code for arthritis or joint pain were eligible and qualified for incorporation in our study.

The Participates in this study through an online questionnaire design in Arabic language that was uploaded on Google forms website, and was distributed on web-based media applications through collaboration effort with numerous companions and friends.

**Participants and Eligibility Criteria**

**Participant sample size**

The sample size took an interest and participated in this study was 405 participates of both genders aged  $\geq 18$  years old.

**Inclusion Criteria**

Adult  $\geq 18$  y/o of both genders diagnosed with arthritis of Saudi & non Saudi populations.

**Questionnaire design**

The questionnaire was mainly made out of four segments. Demographic data contain inquiries on Nationality, gender, age, marital status, educational level & social habit

History of the disease status contain inquires on recurrence and frequency of visit the specialists to clinical advice and guidance for arthritis, disease duration and span, and Co-morbidities.

CAM items included in the survey were reported in the literature as commonly used for arthritis, or if focus group participants said they were locally used for arthritis. Participants were also asked to describe other therapies and medications they were using. Current utilize was characterized as use at the time of study conduction. History of locking for none recommended and recommended CAM, for example, herbs, vitamins, minerals, acupuncture, venepuncture &....others.

**Statistical Methods & Data analysis**

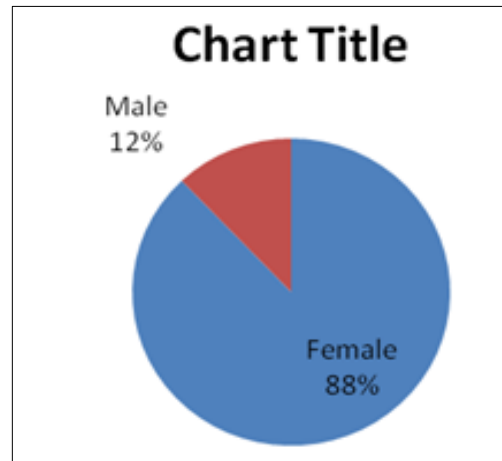
The results were presented in the form of frequency (prevalence), percentage.

The outcomes were verified. Data were revised, coded and tabulated using the frequency and percentage, to analyze and interpret the outcomes.

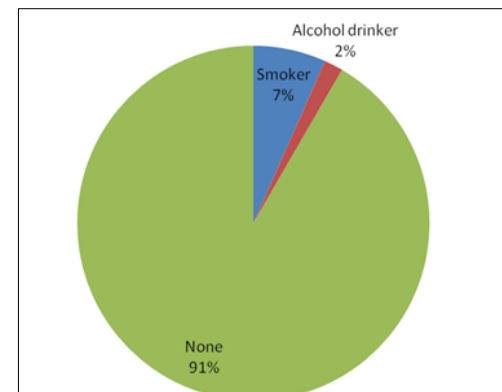
**Results**

405 participants of both sexes ageing  $\geq 18$  year old finished the surveys. Women were representing 88% of them and 78% were Saudi (Figure, 1&3). 44% of participants were illiterate, while 22% were secondary school but 34 % were college graduated (Table, 1). Most of them were single 232 (75%), while 169 (42%) were married (Figure, 4). The majority of participants 371 (91%) did not having any special habits while 27 (7%) were smokers (Figure, 2). Some of participants 157 (39%) did not utilize any CAM, while 150 (37%) using vitamins and minerals. The study recorded 55(13%), 23(6%), 11(3%), 8 (2%) of participants were using nutritional supplements, venepuncture, oral herbs, topical herbs respectively (Figure, 5). A higher proportion of females had arthritis and weak pain on short term disease duration (Table, 2). In addition, a higher proportion of participants had not completed their education, not using CAM. The most

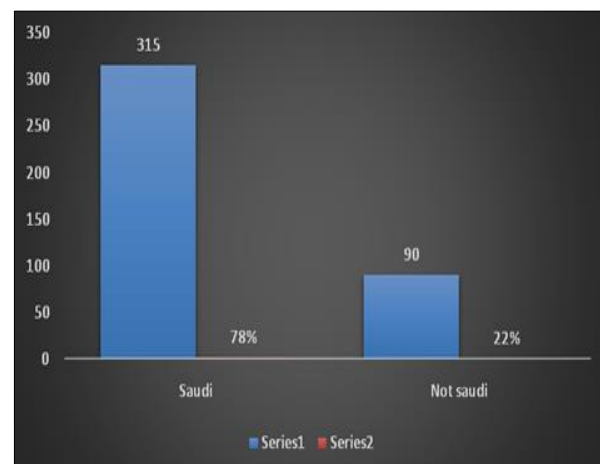
common category of CAM was vitamins and minerals (n = 150), inspite of most commonly participants (n=157) did not use any CAM. There were 55 out of 405 participants using nutritional supplements, and 23 out of 405 participants using venepuncture (Figure, 5). With respect to co-morbidities, 193 (47.65%) of participants did not complain of health problems other than arthritis. The most widely recognized co-morbidity was hypertension 69 (17%) followed by Diabetes 41 (10%) (Table, 5). Our results revealed that 158 (39%) of non-graduated and 134 (33%) of collage graduated participants did not utilize any CAM (Table, 1&3).



**Fig 1:** shows the percentage of females to males participants (n=405)



**Fig 2:** Represents the Percentage of Special Habits between the Participants (N=405)



**Fig 3:** Shows the Percent of Saudi to non-Saudi of participants (n=405)

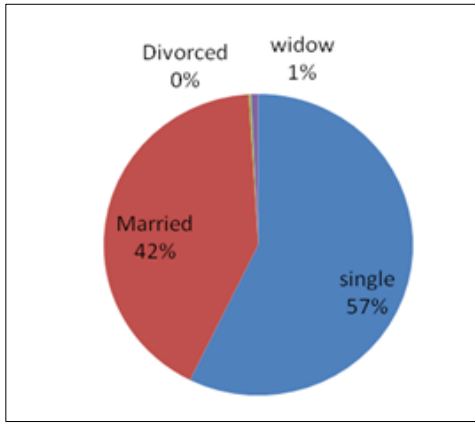


Fig 4: shows the marital status of participants (n=405)

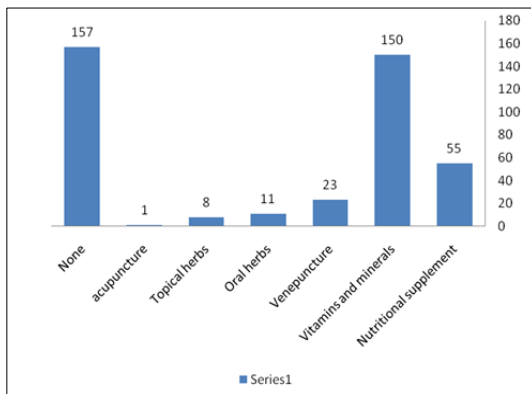


Fig 5: Represents the Incidence of Various Cam Uses between the Participants (N=405)

Table 1: Shows the Relation between the Educational Degree and CAM use (n=405)

Educational levels with or without CAM	%	No.
Not graduate with CAM	4	16
Not graduate without CAM	39	158
High school with CAM	2	8
High school without CAM	21	85
Collage graduate with CAM	1	4
Collage graduate without CAM	33	134
Total	100	405

Table 2: shows the relation between the severity of pain and the disease duration (n=405)

Pain severity	Disease duration / y	%	No.
severe	>15	1.48	6
severe	11-15	1.48	6
severe	6-10	2.47	10
severe	0-5	4.44	18
severe	unknown	2.2	9
moderate	>15	0	0
moderate	11-15	1.48	6
moderate	6-10	5.1	21
moderate	0-5	18.7	76
moderate	unknown	11.1	45
weak	>15	0	0
Weak	11-15	0	0
Weak	6-10	0	0
weak	0-5	27.1	110
weak	unknown	24.4	99
		100	405

Table 5: shows the prevalence of co-morbidities between the participants (n=405)

Co-morbidities	%	No.
Diabetes Mellitus	10	41
hypertension	17	69
Chronic kidney disease	2.7	11
Chronic liver disease	0.74	3
Obesity	8.6	35
Bronchial Asthma	0.9	4
Anemia	0.9	4
Hypothyroidism	0.74	3
Hyperthyroidism	0.24	1
None	47.65	193
others	10	41

Table 3: shows the Relation between the demographic parameters and the CAM use or nonuse (n=405)

Demographic	CAM user	Non- CAM user	Total
Total	248	157	405
female gender	228	128	356
percentage	6%	82%	88%
age (18-44)	178	139	317
percentage	72%	89%	78%
age (45-54)	33	7	40
percentage	13%	4%	10%
age (55-64)	31	9	40
percentage	13%	6%	10%
age (65-74)	3	1	4
percentage	1%	1%	1%
age (> 75)	3	1	4
percentage	1%	1%	1%
Saudi nationality	200	115	315
percentage	81%	73%	78%
single	132	100	232
percentage	53%	64%	57%
Married	112	57	169
percentage	45%	36%	42%
Divorced	1	0	1
percentage	0%	0%	0%
Widow	3	0	3
percentage	1%	0%	1%
University degree	73	63	136
percentage	29%	40%	34%
High school	57	34	91
percentage	23%	22%	22%
Illiterate	118	0	118
percentage	48%	0%	29%
0-4 (weak)	101	110	211
percentage	41%	70%	52%
5-7(moderate)	107	40	147
percentage	43%	25%	36%
8-10 (severe)	40	7	47
percentage	16%	4%	12%

Discussion

In this study, 405 participants of both genders ageing ≥18 year old completed the surveys. The most of them were ladies and Saudi.

Illiterate were 44%, while 22% were secondary school but 34 % were college graduated.

Similar to different studies, we found that CAM utilize was related with being female and being taught [11, 13]. A large portion of them were single 75%, while 42% were married.

91% of participants did not have any special habits while 7% were smokers. Furthermore, results of the present study revealed that 61.3% of participants were CAM utilizers. Most of them using vitamins and minerals, nutritional supplements, venepuncture, oral herbs, topical herbs respectively. The most common co-morbidity among the participants was hypertension then Diabetes.

CAM utilization was common among people with arthritis in Saudi Arabia as evident by the 61.3% of participants using at least one kind CAM. This is consistent with the prevalence rates reported in the 2004/05 Australian National Health Survey (NHS) [12] and the North West Adelaide Health Study (NWAHS) cohort in 2004/05 [11].

Our findings were not consistent with the findings of Rao *et al* (2003) who found that patients with arthritis utilized a low number of CAM conflicts with a previous rheumatology clinic study [14].

Data of our study had importance on the ground they demonstrate that conventional therapies alone are for an incredible degree not gathering the requirements of arthritis's patients.

Vitamins, minerals, nutritional supplements and venepuncture (cupping) were the most widely category of CAM utilized by the participants. These findings were consistent with some past studies, current use of any type of CAM in this study was associated with ladies who age  $\leq 55$  year old, and have some degree of taught [16].

Moreover, results of the current study were agreed with another study planned on patients enduring of low back pain. They found that older ladies had highly positive attitudes and an increased aspiration toward usage CAM to control their low back pain. In another study, they found that 92.1% of CAM users were female, and 90.5% used at least one sort of CAM [17, 18].

Physicians should get some information about CAM utilization since; it has critical ramifications, which might subject the patient's wellbeing to the risk of adverse effects and exploring integrative approaches with conventional therapy. Nondisclosure was found mostly in light of the fact that physicians did not ask their patients [19].

Subjects with arthritis may utilize these sorts of treatments to diminish persistent pain and improve the disabilities that go with arthritis. The current study showed that CAM utilize was more probable among women compared to men. Ladies patients with arthritis had higher odds of using CAM contrast with men [20].

We did not research the correlation with spot of residence albeit another Saudi study found a relationship with living region, for example, Taif city [21].

Use of CAM for executives of old arthritis is inclined to review inclination. Along these lines, the term of current utilization was utilized as use at the time of the interview. There is as yet the constraint of getting some information about CAM use at just specific time. Meaning of CAM is progressively obscured as certain treatment, such as; vitamins have become part of conventional clinical practice.

Efforts are needed and expected to investigate how best to decipher CAM adequacy and advantages in cure of arthritis. Extra explorations and researches are required on efficacy, viability, security and safety of CAM used by arthritis patients, remembering research for possible negative interactions between CAM therapies and conventional treatments such as medications.

Our work permitting us to explore the correlation of CAM

use among participants with diverse demographic, disease, and treatment character.

Despite the fact that we specifically ask the participants to determine CAMs taken for arthritis, we cannot be sure that this is the situation. We likewise have no information concerning the amount, the frequency or the dose of the CAMs used.

Our study investigated oral forms of CAMs as well as we consider other CAM categories such as venepuncture, acupuncture, and so on.

Our study has some constraints, including a moderately little sample size of 405 participants. Subsequently, future studies should intend to extend this population size. Moreover, the study relied upon self-reported questionnaires, which may show a predisposition regarding participant answers since certain participants may demonstrate of usage CAM however might be not for arthritis. However, this study was done to survey the prevalence of using CAM and the perception of its population about CAM among Saudi and non-Saudi population in KSA. We recommend more research to survey this strategy and to understand the causes behind increasing usage of CAM and clinical evaluation of its viability, wellbeing and safety.

### Conclusion and Recommendations

Our study concluded that more than 61% of participants with arthritis look for use of CAM, searching for relieving the arthritic pain. Physicians should get some information from patients about their set of experience of CAM use since it affects the patient outcomes. We recommend more research to clinically evaluate the effectiveness, viability and safety of usage of CAM in arthritis patients with other co-morbidities.

### Conflicts of Interest

The authors have no challenging interests

### Funding

None

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