

Gender Differences in the Use of Complementary and Alternative Medicine (CAM) Practice: A Community-Based Survey

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ABSTRACT

Background: Complementary and Alternative Medicine (CAM) is a common practice worldwide and there is a broadening interest among Saudi population in its curative potential. This study aimed to determine the gender differences of Saudi population in the use of Complementary and Alternative Medicine based on individual practice and beliefs.

Aim: To determine the purpose, beliefs, and commonly used modalities in CAM among the indigenous community in Riyadh, Saudi Arabia.

Methodology: This is a cross-sectional study conducted in Riyadh region of Saudi Arabia. Data were collected from 740 respondents by a pre-tested questionnaire after obtaining ethics approval. Statistical analysis was performed by SPSS software version 25.0.

Result: Sixty-one (28.6%) males prefer the use of CAM over modern medicine compared to 205 (38.9%) females. One hundred and twenty-one (56.8%) and 297 (56.4%) of males and females, belief that CAM can cure diseases what Modern Medicine still struggle with.

Two hundred and forty-two (45.9%) females and 79 (37.1%) males use CAM for treatment respectively. Ninety males (42%) use CAM based on cultural reasons: However: Two hundred and twenty-five (42.7%) females use CAM based on their belief on its scientific evidence.

Conclusion: Females prefer CAM use more than males. Both genders use CAM mainly for treatment. Herbs are the most common types of CAM for both males and females. The source of getting CAM products is family and friends both genders. The use of CAM is based on cultural reasons for males, scientific evidence forms the base of CAM use for females.

Key words: Complementary and alternative medicine, Gender differences, Practice

HOW TO CITE THIS ARTICLE: Sawsan Mustafa Abdalla, Noura M. Al-Ghanam, Hanan Hammad ALMutairi, Khloud Eid Albeladi, Marwa Ali Alanazi, Syed Meraj Ahmed, Elsadig Yousif Mohamed Gender Differences in the Use of Complementary and Alternative Medicine (CAM) Practice: A Community-Based Survey, J Res Med Dent Sci, 2020, 8(5): 86-91

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Received: 13/07/2020
Accepted: 18/08/2020

INTRODUCTION

There is a growing trend towards different treatment modalities among the millennials worldwide and this can be due to availability of attractive choices. Healthcare services have come a long way from traditional methods to practices encompassing a whole smorgasbord of technologies. And now that these technologies are proving to be either ineffective or beyond the reach of common

people, traditional and alternative medicines are making a comeback even among the elites [1]. WHO Director-General, Dr. Margaret Chan, stated that “traditional medicines, of proven quality, safety, and efficacy, contribute to the goal of ensuring that all people have access to care” [2].

Worldwide, the spread of complementary and alternative medicine (CAM) practice has been phenomenal, be it the acupuncture, or yoga or cupping [3]. Its continuous use among patients for both treatment and prevention of chronic diseases has been well documented and not merely a lip service by healthcare specialists [4]. European Social Survey (2014) found a wide variation in the use of

CAM across the European Union from as high a preference of 40% among healthcare users in Germany to around 10% in Hungary [5]. Montross et al (2017) in their study found that most of the participants showed interest (70%) and willingness to pay (71%) for establishing CAM practices within the hospital [6]. Bauml J M et al concluded in their survey that attitude and belief played a major role in the preferential use of CAM practices among whites, non-whites, elderly, educated and female cancer patients [7]. In fact, even general practitioners voiced their affirmation of CAM's role in clinical practice despite limited evidence of their scientific background [8].

Most of the population of south-east Asian countries like Singapore and Korea where conventional healthcare system is quite established still prefer traditional and complementary medicine for treatment [9]. It also found favor among the European population who would prefer it for treatment of pain or allergy related ailments rather than preventive or promotive care [10]. A study conducted in Trinidad and Tobago found that 56.2% of cardiac patients had a high preference for CAM [11]. A study done in Riyadh region, KSA showed a high prevalence and increased public interest in the use of CAM, about 85% of participants or one of their family members has used some form of CAM before [12].

CAM practices in Saudi Arabia are based on religious beliefs such as Holy Quran therapy, use of honey, black seed and myrrh, and cupping popularly known as al-hijama [13,14]. One study found that mostly CAM practices acceptable to the Saudi population was of the spiritual kind like recitation of Quran with or without water followed by use of herbs, honey or dietary products [15]. Albedah et al pointed out in their editorial that integrative clinics by Ministry of Health was developed with evidence based integrative protocols for the practice of CAM [16]. Another Saudi study found that CAM was common among females and middle-aged population who sought consultation most frequently for chronic diseases [17].

Comprehensive education and exposure to the social media has opened the average Saudi population to many possibilities and choices of treatment beneficial to him/her in the long run. A study on the beliefs and practices among the Saudi population based on their preferences for treatment will go a long way in determining healthcare strategy to promote disease prevention, treatment, and rehabilitation.

This study aimed to determine the gender differences of Saudi population in Complementary and Alternative Medicine practice and beliefs.

Table 1: Age and gender distribution of the participants.

| Age group | Gender | | Total No (%) |
|-----------|-------------|---------------|--------------|
| | Male No (%) | Female No (%) | |
| 18-24 | 97 (23.9) | 309 (76.1) | 406 (54.9) |

METHODOLOGY

This is a descriptive, cross-sectional survey amongst the adult male and female participants (>18 years of age) residing in Riyadh, Saudi Arabia. The type of sampling was multistage cluster sampling. Riyadh region was selected randomly from regions of Saudi Arabia. Five provinces were selected from Riyadh region by simple random sampling. The selected provinces were Riyadh, Majmaah, Zulfi, al-Ghat and Shagra. Selection was done according to population size. Inside the selected provinces clusters were done based on the neighborhood.

The sample size was calculated using the formula:

$$n = Z^2 p (1-p) \times DE/d^2$$

$$(Z=1.96, p=59\%, d=0.05, DE=2)$$

$$n=(1.96)^2 \times 0.59 \times 0.41 \times 2/0.05 \times 0.05 [12]$$

$$n=743$$

An interviewee based pre-tested, pre-validated close ended questionnaire was used to collect the data. The investigators assured the participants of answering any queries they might have in the questionnaire which would be filled in their presence. The investigator also ensured that the participants understood the nature and confidentiality of the study. Informed consent was incorporated within the questionnaire. It explained in simple and clear terms the purpose of this study, anonymity of the participants and it is benefit to the community. The participants were required to read and sign the consent before attempting the questionnaire.

All descriptive data was entered in the statistical software SPSS version 23 for analysis and evaluation. The prevalence and association of the socio-demographic data with the determinants was done using the frequency analysis tool. Analytical assessment was done using the chi square test to find out any significant association that could form the basis of recommendation in this study. The ethics approval was obtained from Majmaah University IRB.

RESULTS

Table 1 shows age distribution and gender of the sample. Males were 213 (28.8%) and females were 527 (71.2%). Males and females of the age group 18-24 were 97(23.9%) and 309 (76.1%) respectively. Males and females of the age group 25-45 were 83(31.0%) and 185(69.0%) respectively. Males and females more than 45 years of age were 33 (50%) and 33(50%) respectively.

| | | | |
|----------|------------|------------|--------------|
| 24-45 | 83 (31.0) | 185 (69.0) | 268 (36.2) |
| Above 45 | 33 (50.0) | 33 (50.0) | 66 (08.9) |
| Total | 213 (28.8) | 527 (71.2) | 740 (100.0%) |

Table 2 describes gender differences in preference and beliefs of CAM. Sixty-one (28.6%) males prefer the use of CAM over Modern Medicine compared to 205 (38.9%)

females. One hundred and twenty-one (56.8%) and 297 (56.4%) of males and females, belief that CAM can cure diseases that Modern Medicine could not.

Table 2: Gender differences in preference, beliefs and use of CAM.

| Variable | Gender | | Total | P Value |
|------------------------------------------------------|--------|-------------|-------------|---------|
| | Male | Female | | |
| I prefer to use CAM over Modern Medicine | Yes | 61 (28.6%) | 205 (38.9%) | 0.12 |
| | No | 152 (71.4%) | 322 (61.1%) | |
| | Total | 213 (28.7%) | 527 (71.3%) | |
| CAM can cure diseases that Modern Medicine could not | Yes | 121 (56.8%) | 297 (56.4%) | 0.96 |
| | No | 92 (43.2%) | 230 (43.6%) | |
| | Total | 213 (28.7%) | 527 (71.3%) | |

All subjects heard about CAM

Table 3 shows participants use and practice of CAM. One hundred and twenty-six (59.2%) of the males and 357 (67.7%) of the females expressed that they ever used CAM. Two hundred and forty-two (45.9%) and 79 (37.1%) of females and males use CAM for treatment, respectively. Ninety males (42%) use CAM based on cultural reasons followed by scientific evidence 80

(37.6%). Two hundred and twenty-five (42.7%) females use CAM based on their belief on its scientific evidence followed by cultural reasons (40.4%). Religious reasons were the base for 20.2 % and 16.9% males and females, respectively. Most males and females take CAM products from their families and friends constituted 68.1% and 60.5% respectively.

Table 3: Participants use and practice CAM.

| Variable | Gender | | Total | P Value |
|---------------------------|----------------------------------|-------------|-------------|---------|
| | Male | Female | | |
| Ever used CAM | Yes | 126 (59.2%) | 357 (67.7%) | 0.1 |
| | No | 87 (40.8%) | 170 (32.3%) | |
| | Total | 213 (28.8%) | 527 (71.2%) | |
| Reasons behind use of CAM | Prevention of disease | 16 (7.5%) | 41 (7.8%) | 0.712 |
| | Treatment of disease | 79 (37.1%) | 242 (45.9%) | |
| | Promotion of health | 29 (13.6%) | 66 (12.5%) | |
| | Never used CAM | 87 (40.8%) | 170 (32.3%) | |
| | Treatment, Prevention, Promotion | 02 (0.9%) | 8 (1.5%) | |
| | Total | 213 (28.8%) | 527 (71.2%) | |
| Bases of CAM use | Religion belief | 43 (20.2%) | 89 (16.9%) | 0.72 |
| | Scientific evidence | 80 (37.6%) | 225 (42.7%) | |
| | Cultural practice | 90 (42.2%) | 213 (40.4%) | |
| | Total | 213 (28.7%) | 527 (71.2%) | |
| Getting CAM products | Certified personnel | 35 (16.4%) | 113 (21.5%) | 0.69 |
| | Herbal shops | 24 (11.3%) | 75 (14.2%) | |

| | | | |
|-------------------|-------------|-------------|-------------|
| Family and friend | 145 (68.1%) | 319 (60.5%) | 464 (62.7%) |
| Other | 9 (4.2%) | 20 (3.8%) | 29 (3.9%) |
| Total | 213 (28.8%) | 527 (71.2%) | 740 (100%) |

The most common types of CAM practices used by males were herbs (29.6%) followed by cupping (22.5%). The most common types of CAM practices used by females

were herbs (34.9%) followed by combination of cupping, herbs, acupuncture, and Prophetic medicine (30.9%) as shown in table 4.

Table 4: Types of CAM practices used by the participants.

| | Gender | | Total | P Value |
|----------------------------------------|-------------|-------------|-------------|---------|
| | Male | Female | | |
| Herbs | 63 (29.6%) | 184 (34.9%) | 247 (33.4%) | |
| Cupping, Herbs, Acupuncture, Prophetic | 35 (16.4%) | 163 (30.9%) | 198 (26.8%) | |
| Cupping | 48 (22.5%) | 109 (20.6%) | 157 (21.2%) | |
| Prophetic | 26 (12.2%) | 30 (5.7%) | 56 (7.6%) | |
| Acupuncture | 3 (1.4%) | 13 (2.5%) | 16 (2.2%) | |
| Others | 38 (17.9%) | 28 (5.3%) | 66 (8.9%) | |
| Total | 212 (28.8%) | 524 (71.2%) | 736 (100%) | 0.01 |

DISCUSSION

There is a widespread use of CAM among the population of Saudi Arabia. It is important to study beliefs and practices of CAM among the community and identify the reasons behind use of CAM instead of conventional medicine.

This study found that all the 740 participants heard about CAM. Females prefer using CAM over modern medicine more than males (38.9% vs 28.6%) but the relation is not significant ($p=0.12$). This finding is consistent with studies done elsewhere [18-21]. Jawahar R reported that women were more likely than men to use CAM products alone (23.9% women, 21.9% men) or with western medications (27.3% women, 19.0% men) [19]. Alwhaibi M et al Reported a significantly higher percentage of women compared to men had ever used CAM (51.5% versus 44.3%) [22].

Males and females use CAM mainly for treatment (37.1% and 45.9%) respectively. This finding is consistent with other studies [23-27]. CAM treatment involves acute conditions such as abdominal pain, common cold [28]. It also includes dermatological problems, liver disease, cancers, and diabetes mellitus [28,29].

It is reported in this study that CAM is used by males based on cultural beliefs (42.2%), while for females based on scientific evidence (42.7%), the relation is not significant ($p=0.72$). This finding contradicts Read SC who reported that non-western men and women use CAM for religious reasons [30]. In Saudi Arabia Al-Faris EA reported that the religious reasons formed the base behind CAM use (50.3%) [31].

The sources of CAM products mainly were from family and friends for males and females (68.1% and 60.5%)

respectively. This finding is consistent with Musaiger AO et al who found that religious and medicinal herb healers were commonly visited by adolescents to get CAM products in a study conducted in Al-Khobar city, Eastern region of Saudi Arabia [32]. However, Izgu N reported that pharmacies are the source of CAM products in Turkey [33]. Our study reported that herbal use is the major common practice of CAM among the population (29.6% for males and 34.9%). This is in line with a study conducted by Kazmi et al in Al-Majmaah, Saudi Arabia [34]. Alrowais NA reported that the common practice among Saudi population was of spiritual type such as prayer and reciting Quran. Other types include herbs, honey, and dietary products. Cupping (Hijama) was the least used. Acupuncture was more practiced among professionals [35,36]. In the Western world, in contrast to Saudi Arabia, the commonly used types of CAM are relaxation technique, ginseng and chiropractic [37-39].

CONCLUSION

The study concluded that females prefer CAM use more than males. Both genders use CAM mainly for treatment. Herbs are the most common types of CAM for both males and females. The source of getting CAM products is family and friends both genders. The use of CAM is based on cultural reasons for males, scientific evidence forms the base of CAM use for females.

ACKNOWLEDGEMENT

The authors thank the Deanship of Scientific Research and the Deanship of Community Services at Majmaah University, Kingdom of Saudi Arabia, for supporting this work. The authors would like to acknowledge the supervisor from Education Administration, Al-Majmaah,

Ms. Assail Rashid Marzoog Almutairi and the students: Dana Khaled Alsabhan, Yara Ahmed Alhussaini, Shahad Mohamed Alshaibany and Shumukh Thamer AlMutairi for their participation in this work.

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