Awareness, attitude and practice of outpatient clinics attendants in Ain Shams & Benha University hospitals towards cupping therapy (al-hijama)

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Received: June 2018 accepted : August 2018

Abstract

Background: Many research studies were conducted regarding cupping therapy in different countries but the extent of its use and awareness of public towards it has not been widely studied in Egypt. **Methods:** A cross-sectional study was carried out on outpatient clinics attendants in Ain Shams University hospitals and Benha University hospitals during the period from May to August 2015. An interview questionnaire was used inquiring about socio-demographic characteristics of participants, their awareness, attitude and practice regarding cupping therapy. **Results:** A total of 900 participants were included in this study; 750 from Ain Shams University hospitals and 150 from Benha University hospitals. Out of them, 68.1% had heard about cupping therapy, among those who heard about it 16% reported history of using it before. The most common cause of using it was for treatment of bone and joint disorders. About 60% of participants think that it helps in treatment and about 47% trust it. There was statistically significant association between awareness and all demographic factors (like age, gender, marital status, education, residence and presence of chronic diseases) measured in this study. Gender and marital status were the only demographic factors associated with practicing cupping therapy. **Conclusion:** Complementary and alternative medicine is gaining popularity all over the world and people are shifting towards alternative medicine because of less adverse effects and low cost. Most of study participants think that cupping therapy helps in treatment and about half of them trust it. **Recommendations:** There is a need for health care providers to be aware of this practice and make efforts in obtaining information about modalities used.

Keywords: Awareness, attitude, practice, cupping therapy, Egypt

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Introduction

Traditional medicine (TM) refers to the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, used in the maintenance of health and in the prevention, diagnosis, improvement or

treatment of physical and mental illness. Traditional medicine covers a wide variety of therapies and practices which vary from country to country and region to region. In some countries, it is referred to as "alternative" or "complementary" medicine (CAM) [(1)]. Complementary and alternative medicine (CAM) is widely used by both healthy people and patients with various medical problems in many countries. Nearly half of the population in many industrialized countries like United States, Australia, France, Canada, and Japan use CAM therapies. CAM usage is also increasing in many developing countries, including China, Chile, Colombia, and Taiwan [(2-4)]. Cupping therapy (Al-Hijama) is a type of traditional medicine. It is an ancient medical treatment that relies upon creating a local suction to mobilize blood flow in order to promote healing [(5)]. It is a well known alternative treatment in Asia and Middle East [(6)] and also getting reputation in many European countries and America as well [(7)]. Types of cupping include retained cupping, flash cupping, moving cupping, wet cupping, medicinal cupping, and needling cupping [(8)].Wet cupping is a common method. In order to perform this procedure, a glass cup is placed on the skin and a vacuum is created inside it. After a few minutes, a superficial incision is placed in the area to suck the blood into the cup. This is repeated several times [(9)]. Each type of cupping therapy may be used for different diseases or different treatment purposes. It is regularly observed to bring about pain relief and to increase a patient's general feeling of well-being, and it is applied to increase the local circulation of blood and lymph and to relieve painful muscle tension [(10)]. Cupping therapy has also been used to improve subcutaneous blood flow and to stimulate the autonomic nervous system. Cupping therapy is also a commonly-used traditional intervention for various conditions: pain, hypertension and stroke rehabilitation [(11)]. Nowadays, cupping therapy (Al-Hijama) is gaining popularity among Egyptians but the extent of its use and awareness of public towards it has not been widely studied. The aim of this study was to assess the knowledge, attitude and practice towards cupping therapy among patients of out-patients clinics of Ain Shams University hospitals and Benha University Hospitals.

Material and Methods

A cross-sectional study was carried out on outpatient clinics attendants in Ain Shams University hospitals and Benha University hospitals during the period from May to August 2015. Assuming that level of awareness about cupping therapy among studied population is 50% ± 5 at 95% CI the required sample size is 384 participants (using Epi Info 7 program). The obtained sample size was 900 participants (750 from Ain Shams University hospitals and 150 from Benha University hospitals. After extensive literature review an interview questionnaire was developed to fulfil the study objective. This questionnaire was used to inquire about socio-demographic data of participants like age, gender, education level, marital status and occupation, their awareness about cupping therapy and source of this awareness , their attitudes towards cupping therapy as they accept it or not, history of use of cupping therapy and cause of using it. The purpose of the study was explained to participants and their consent was obtained prior to

administering the questionnaire. The completed questionnaires were revised, coded and a database was designed using the Statistical Package for the Social Sciences (SPSS) program version 18 [12]. For description, quantitative data e.g. age were presented as minimum, maximum, mean and standard deviation. Qualitative data e.g. gender, were presented as count and percentage. Chi-Square test was used to compare qualitative variables in different study groups, p value < 0.05 was considered statistically significant.

Results

A total of 900 participants were included in this study; 750 (83.3%) from Ain Shams University hospitals and 150 (16.7%) from Benha University hospitals. Regarding demographic characteristics of study participants, their age was ranging between (18-75) years old with mean of 37.3 ± 13.2 years. Among them 376 (41.8%) were males, 524 (58.2%) were females, 161 (17.9%) were single, 678 (75.3%) married, 18 (2%) divorced and 43 (4.8%) widow. Regarding education 210 (23.3%) were illiterate, 117 (13%) were just reading and writing or had primary certificate, 299 (33.2%) had preparatory or secondary certificate and 274 (30.4%) had university or post-graduate education. Six hundred and 64 (73.8%) were living in urban areas and 236 (26.2%) in rural areas. Regarding medical history 296 (32.9%) of participants were suffering from chronic diseases like diabetes mellitus (10.1%), hypertension (18.3%) or osteoarthritis (19.7%). Study participants were then inquired if they know cupping therapy or not and history of using it before where (figure1) shows that 613 (68.1%) of participants had heard about it while 287 (31.9%) didn't, among those who heard about it 98 (16%) reported history of practicing it. Study participants' opinion and attitude towards cupping therapy were assessed by number of questions and the answers were recorded on a scale ranging from strongly disagree, disagree, neutral, agree to strongly agree. The responses are shown in (figure2). When asking study participants if they knew a person who was treated with cupping therapy, 555 (90.5%) said yes. As regard the source of knowledge 255 (45.9%) knew about cupping from Sheikh of the mosque, 136 (24.5%) from friends or family members, 83 (15%) from cupping therapy centre and 81 (14.6%) from their doctor. 46 (7.5%) of participants reported that their doctor had recommended cupping therapy for treatment of their condition. Regarding cause of use cupping therapy, 5 (5.1%) of participants used it as a preventive medicine from any disease, 15 (15.3%) used it for treatment of internal medicine causes, 59 (60.2%) for bone and joint disorders, 2 (2%) for surgeries, 8 (8.2%) for other causes like migraine and herpes and 9 (9.2%) used it for more than one cause. At the end of the questionnaire participants were also asked if they will use cupping therapy for treatment in the future and 254 (41.4%) of them said yes while 291 (47.5%) said no. 272 (44.4%) of participants stated that they will encourage their family and friends to be treated with cupping therapy in the future. Regarding association between demographic factors and cupping therapy awareness, there was statistically significant association between awareness and all demographic factors measured in this study. Awareness was highest among age group (40-<60) years (72.8%) and lowest among age group (<20) years (38.6%), higher among

males (75.5%) than females (62.8%), higher among married participants (72.4%) than others, higher among highly educated participants than others where (80.7%) of those have university or higher education were aware about cupping therapy. Awareness was also higher among urban residents (70.3%) than rural residents (61.9%), higher among those suffering from chronic diseases (76.4%) than others (64.1%). Regarding association between demographic factors and practice of cupping therapy, there was statistically significant association with gender where males showed higher practice of cupping (21.5%) than females (11.2%) and widowed showed the highest practice of cupping (22.7%). Table1 displays these associations with their test of significance and p-value.

Discussion

Nowadays, cupping therapy (Al-Hijama) is gaining popularity among Egyptians but the extent of its use and awareness of public towards it has not been widely studied. The aim of this study was to assess the public knowledge, attitude and practice towards cupping therapy among out-patient clinics attendants at Ain Shams University hospitals and Benha University Hospitals. Although cupping therapy is well known in the Islamic history, up to our knowledge, there is no medical schools in the Islamic world that provide courses about complementary or alternative medicine, whereas some United States and Japanese medical schools provide them [13,14]. Regarding public awareness about cupping therapy, about (68%) of participants in this study had heard about cupping therapy before. In a study done in Saudi Arabia to measure public perception of cupping therapy, (78%) of the participants were aware that cupping is a well-known form of alternative medicine [15]. Another study done in Karachi, Pakistan found that 53% of public are aware about cupping therapy. [16].

In the present study, practicing cupping therapy was reported by 16% of participants. A previous study done in Egypt in Al-Minia governorate showed that prevalence of using alternative medicine is 32.9% [17]. Another two studies done in Saudi Arabia stated that the prevalence of using alternative medicine is 42% and 80% [18, 19]. The lower prevalence in this study may be attributed to measuring only the prevalence of using cupping therapy and not other types of alternative medicine and may be also attributed to the difference in demographic characteristics of study participants like education level. Cupping has been used for many causes, mainly described as treatment for chronic pain like lower back pain and headache [20]. 60.2% of participants who practiced cupping therapy were for treatment of bone and joint disorders. A previous study done in Saudi Arabia showed that 67% of neurological patients use traditional medicine in one form or another [21]. Previous studies also reported the use of traditional medicine for many diseases like cancers and cardiovascular disease [22-25]

About 60% of participants in this study admit that cupping therapy can help in treatment and about 35% agreed that it can cure many diseases. A previous study done in Karachi, Pakistan found that 48% of participants agreed that cupping therapy helps conventional medicine in treatment while 51% participants agreed that it cured those diseases that were failed to be treated by conventional medicine [16]. Another

study done in Saudi Arabia found that 72% of participants agreed that alternative medicine helps conventional medicine and 27% thought that alternative medicine has replaced conventional medicine [19].

In the present study, about 59% of participants agreed that cupping therapy is not expensive. Previous studies revealed that the common reasons for using alternative medicine include its effectiveness, accessibility and reduced cost [17]. Pakistan's study reported that patient may seek alternative medicine due to higher cost of conventional medicine and long waiting time to meet doctors [16].

In the present study, males were more aware about cupping therapy and practiced it more than females. This is similar to what was found by the previous study in Saudi Arabia to measure public perception of cupping therapy and found that practice of cupping therapy is higher among males [15]. However, previous studies showed that females were more inclined towards alternative therapy than males as the study done in Al-Minia governorate in Egypt and other studies done in Sudan and Australia [17, 25, 26]. Another study done in Saudi Arabia to measure pattern of traditional medicine use by patients with neurological disorders found no association between gender and practice of traditional medicine [21]

No significant association was found between cupping therapy practice and age of participant in this study. The same result was found by previous studies done in Germany, New Zealand and Saudi Arabia [21, 27, 28]

In the present study, there was a significant association between education level and awareness regarding cupping therapy where highly educated participants showed higher awareness. But practice of cupping therapy was not significantly associated with education level. In the previous study done in Saudi Arabia to measure public perception of cupping therapy, education level of the participants was not significantly associated with aspects of knowledge, attitude, or practice toward cupping therapy [15]. Another four previous studies done in Saudi Arabia to measure the use of traditional and alternative medicine showed that the risk for traditional medicine use includes age greater than 60, being a female, illiterate, dissatisfaction with physician diagnosis, failure of medical treatment, long waiting time for physicians, and chronic medical conditions [29-32]

Limitations

The study participants may not represent the target population as we apply it on a convenience sample. Participants interested in cupping therapy may be more likely to accept participating in the study. This effect could bias the results by revealing greater knowledge and more favourable attitudes towards cupping therapy and increased practice experiences with cupping therapy than in fact exist.

Conclusion

Complementary and alternative medicine is gaining popularity all over the world and people are shifting towards alternative medicine because of less adverse effects and low cost. Most of study participants think that cupping therapy helps in treatment.

Funding

This research did not receive any specific grant from funding agencies in

the public, commercial, or not-for-profit sectors.

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Table 1: Association of various demographic factors with awareness and practice of cupping therapy:

	Awareness regarding cupping therapy			**History of using cupping therapy**		
	N	**Yes**	**(%)**	**N**	**Yes**	**(%)**
Age (years):						
< 20	57	22	(38.6)	22	2	(9.1)
20- < 40	476	329	(69.1)	329	49	(14.9)
40- < 60	298	217	(72.8)	217	41	(18.9)
≥60	69	45	(65.2)	45	6	(13.3)
Chi Square test (p value)	26.4 (< 0.001)			2.7 (0.45)		
Gender:						
Male	376	284	(75.5)	284	61	(21.5)
Female	524	329	(62.8)	329	37	(11.2)
Chi Square test (p value)	16.4 (< 0.001)			11.9 (0.001)		
Marital status:						
Single	161	90	(55.9)	90	5	(5.6)
Married	678	491	(72.4)	491	88	(17.9)
Divorced	18	10	(55.6)	10	0	(.0)
Widow	43	22	(51.2)	22	5	(22.7)
Chi Square test (p value)	23.9 (< 0.001)			12.2* (0.01)		
Education:						
Illiterate	210	118	(56.2)	118	23	(19.5)
Read & write or have primary certificate	117	64	(54.7)	64	8	(12.5)
Preparatory or secondary	299	210	(70.2)	210	29	(13.8)
university or higher	274	221	(80.7)	221	38	(17.2)
Chi Square test (p value)	43.9 (< 0.001)			2.6 (0.45)		
Residence:						
Urban	664	467	(70.3)	467	77	(16.5)
Rural	236	146	(61.9)	146	21	(14.4)
Chi Square test (p value)	5.7 (0.02)			0.4 (0.55)		
Presence of chronic disease:						
Yes	296	226	(76.4)	226	44	(19.5)
No	604	387	(64.1)	387	54	(14.0)
Chi Square test (p value)	13.8 (< 0.001)			3.2 (0.07)		

*Fisher's Exact

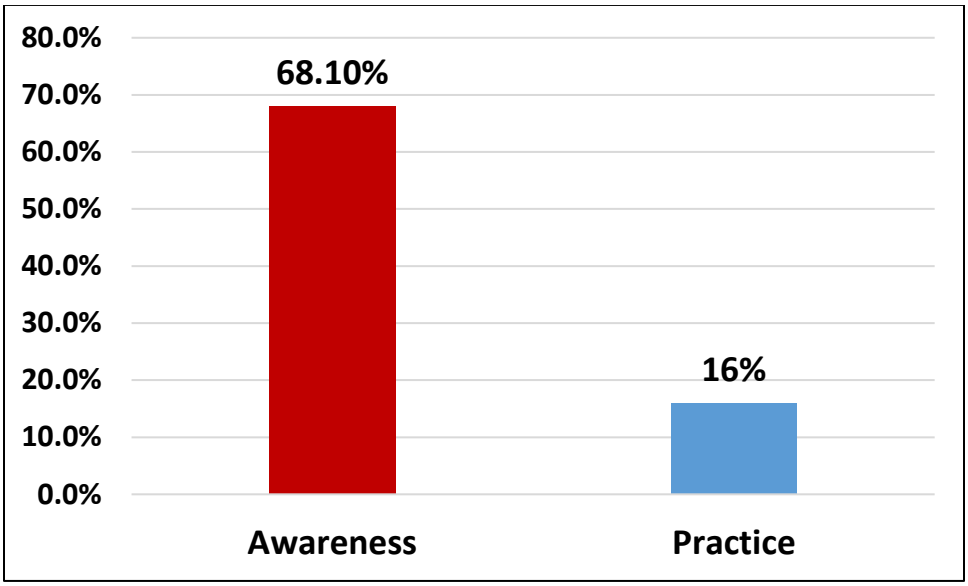

Figure 1: Awareness regarding cupping therapy and history of practicing it among study participants

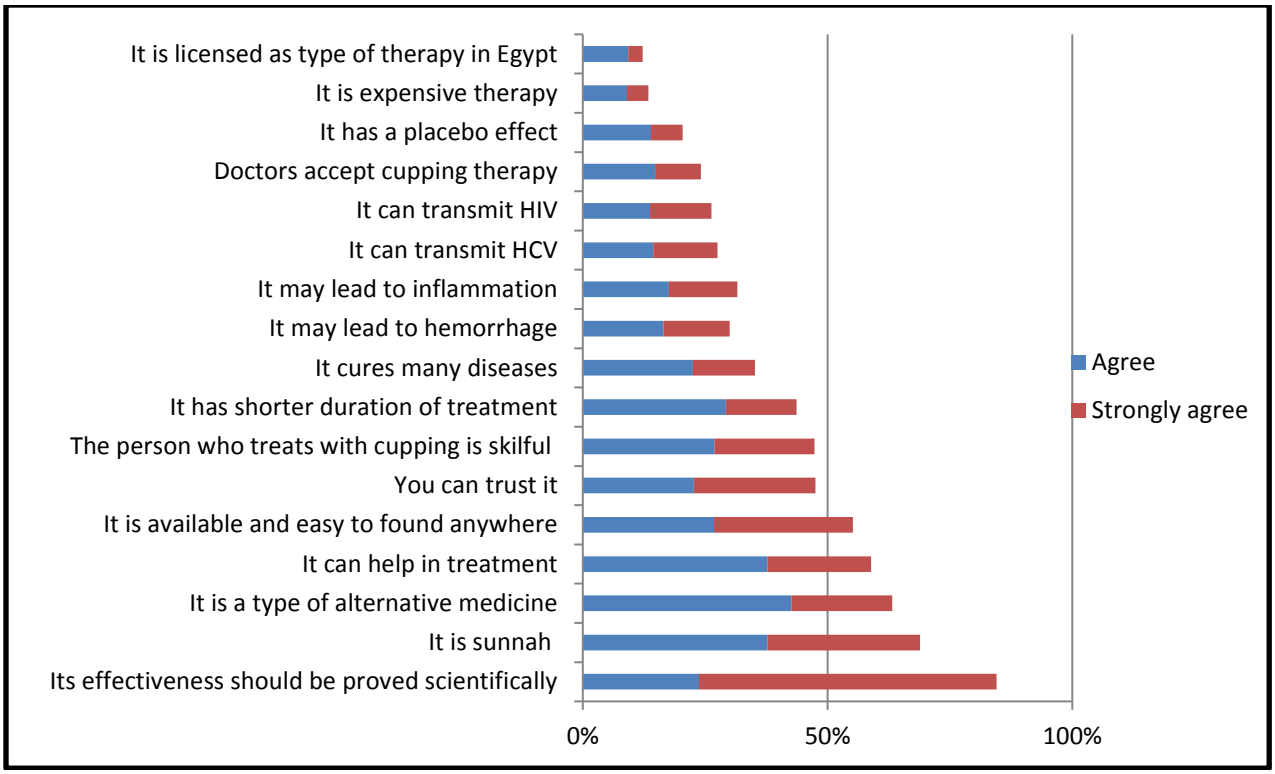

Figure 2: Different attitude responses of study participants towards cupping therapy