

Epidemiological Study of the Patients Attending Cupping Therapy (CT) Sessions in Jazan Area, Kingdom Of Saudi Arabia

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Abstract: Cupping therapy is a form of alternative medicine. There are two types of Cupping Therapy: dry and wet cupping. It has many Physiological effects on the body and it is used to treat many disorders and problems and has some contraindications that should be taken in consideration. The use of cupping therapy is documented in the history of most great cultures and civilization of the past with earliest available record revealing extensive use by the ancient Egyptians , Chinese and middle eastern cultures. The main objective of this study was to explore the characteristics of cupping therapy and the most common condition that's used for. The specific objectives were to describe the epidemiologic features of members undergoing cupping therapy, to identify affecting factors, conditions treated by this therapy and to Identify if there is the complications arising from cupping therapy. The study has been conducted in Jazan area, using a cross sectional study design. The study targeted (280) person attending cupping therapy sessions, during the study period. Data has been collected through face to face (direct interview) with the targeted people by the use of structured questionnaire. The data were entered and analyzed using statistical package for social sciences (SPSS). Ethical approval has been obtained from Faculty of Medicine Jazan University and informed consent has been obtained from all people who have treated by cupping. Confidentiality of the data has been considered and maintained in the whole process. The research results found the most group using this therapy are aged from 18-30 years at percentage of 31.4 % , male 33.3% and female 29.9% . Back pain was the main cause of seeking treatment by cupping then arthritis. Also we found that the reason for doing this therapy is thinking that cupping can treat some condition that traditional medicine cannot (36.4%). We found that people treated by cupping were quite satisfied. The places for doing this therapy are homes (52.1%). We found that the technique of therapy has little or no infection which equal to all most 2.9% . Also people treated by this way encourage treating the cupping. Finally the study recommends that Ministry of health should monitor and evaluate of cupping centers regarding sterilization, so as a void infections and transmission of disease.

Keywords: Cupping Therapy (CT), alternative medicine.

1. INTRODUCTION

Cupping therapy is a form of alternative medicine in which cups are placed on the skin to create suction. The cups can be made of a variety of materials, including: Glass, Bamboo and Earthenware ⁽¹⁾

There are two Types of Cupping Therapy: Dry cupping (suction only) and Wet cupping (combination of suction and controlled medicinal bleeding). During both types of cupping, a flammable substance such as alcohol, herbs, or paper is placed in a cup and set on fire. As the fire goes out, the cup is placed upside down on the patient's skin. As the air inside the cup cools, it creates a vacuum. This causes the skin to rise and redden as blood vessels expand. The cup is generally left in place for five to 10 minutes. ⁽²⁾

Cupping has many Physiological Effects on the body like : Decrease or relieve pain and inflammation , Sedate the nervous system , Improve circulation , Drains lymph fluid, increased range of movement and clears drainage pathways .⁽³⁾Cupping therapy is used to treat many disorders like Blood disorders such as anemia and hemophilia it's also used for Fertility , High blood pressure (hypertension) , Anxiety and depression , rheumatic disease such as arthritis , Migraine and bronchial congestion .⁽⁴⁾

Cupping is considered to be relatively safe, especially when performed by trained health professionals. Potential side effects include: mild discomfort, Burn, Skin infection and bruises. Cupping is Contraindicated for Pregnant or menstruating women, people with metastatic cancer, diabetic patient, patients who use pacemaker , bone fractures and muscle spasms . It's also contraindicated in an artery, deep vein thrombosis and ulcer or pulse can be felt. ⁽⁵⁾

Justification:

Cupping is useful practice for many conditions, but It's prevalence has been reduced nowadays among people . Also there is a lack of studies in the practice of cupping so we are going to do this study for awareness of population about its practices, to develop an educational program to avoid the misuse and wrong practices and control program to prevent the transmission of communicable diseases among people undergoing cupping. Also there are few researches about this topic in Saudi Arabia and no study has been in Jazan area before.

2. LITERATURE REVIEW

The use of cupping therapy is documented in the history of most great cultures and civilization of the past with earliest available record revealing extensive use by the ancient Egyptians , Chinese and middle eastern cultures .

A study conducted in Germany to investigate the effectiveness of wet cupping therapy on patient suffering from brachialgia paresthetica nocturna in both sexes without age restriction , it was a RCT include 20 patient (13 woman median age 47) this study suggested short-term effects of a single wet cupping therapy, which remain at least for 1 week .⁽⁶⁾

A study has been conducted in Germany 2008 to study the effect of cupping therapy on patient with CTS , the study concluded that the cupping may be effective in relieve the pain and other symptoms related to CTS .⁽⁷⁾

A study conducted in Unani system of medicine in 2005 to evaluate the efficacy of cupping on patient of arthritis. 30 patient were randomly selected, 20 patient of them were selected to be case group receiving cupping therapy while the 10 were included to be control group do not receiving cupping therapy. The study concluded that cupping is an effective therapy for the treatment of arthritis.⁽⁸⁾

A study conducted in Iran to investigate the effect of wet cupping on serum lipoprotein concentration by random control trial, 47 men randomly assigned into control 24 and treated 23 groups .this study concluded that Wet cupping may be an effective method of reducing **LDL** cholesterol in men and may have a preventive effect against atherosclerosis.⁽⁹⁾

Cupping is often used for stroke rehabilitation in Asian countries. Cupping was compared with acupuncture, electro-acupuncture and warm needling. Some superior effects of cupping were found in two of the RCTs when compared to acupuncture in hemiplegic shoulder pain after stroke. The two UOSs reported favorable effects of cupping on aphasia and intractable hiccup after stroke.⁽¹⁰⁾

A study conducted in CHINA to investigate the effectiveness of wet cupping on treatment of herpes zoster , they were 8 randomized controlled trials on 651 patients showed wet cupping was superior to medications regarding the number of cured patients , the number of patients with improved symptoms and reducing the incidence rate of post herpetic neuralgia Wet cupping plus medications was significantly better than medications alone on number of cured patients but no difference in symptom improvement this study concluded that Wet cupping appears to be effective in treatment of herpes zoster.⁽¹¹⁾

A pre - post research design was published in 2008 in The American Journal of Chinese Medicine this study conducted to evaluate the effectiveness of wet cupping therapy in the treatment of tension headaches and migraines, The patients were evaluated before and after treatment, and 66% recorded a decrease in the severity of their headaches, the study concluded that wet cupping leads to clinical relevant benefits for primary care patients with headache .⁽¹²⁾

A study conducted in Korea in 2009 to assess the clinical evidence for or against cupping as a treatment for hypertension. Two CTs met all inclusion criteria. One RCT (randomized CT) assessed the effectiveness of dry cupping on changes in cerebral vascular function compared with drug therapy. Their results suggested significant effect in favor of cupping on vascular compliance and degree of vascular filling. One uncontrolled observational study (UOS) tested wet cupping for acute hypertension and found that a one-time treatment reduced blood pressure. It concluded that the evidence is not significantly convincing to suggest cupping is effective for treating hypertension. Further research is required to investigate whether it generates any specific effects for that condition⁽¹³⁾

A study was carried out in Al-Azhar University of Cairo in Egypt in 2005 in order to evaluate the efficiency of blood-letting cupping (BLC) therapy as a complementary therapy in management of rheumatoid arthritis (RA) and to investigate its modulatory effects on natural killer cells (NK) and soluble interleukin-2 receptor (SIL-2R). Two groups of RA patients diagnosed according to American Rheumatology Association were included: Group I included 20 patients who received the conventional medicinal therapy of RA, Group II included 30 patients who received combined conventional and BLC therapy. It concluded that BLC therapy combined with conventional therapy may improve the clinical condition of patients with RA. It has modulatory effects on the innate (NK %) and adaptive cellular (SIL-2R conc.) immune responses that could be used as monitoring tools for disease activity and prognosis.⁽¹⁴⁾

Objectives:

General Objective:

The main objective of this study is to explore the general characteristic of cupping therapy and most common condition that's used for.

Specific objectives:

To describe of epidemiological features of members undergoing cupping therapy

To identify factors affecting cupping therapy.

To list the conditions that use cupping therapy as a treatment.

To show common practices about cupping therapy.

To identify if there is the complications for cupping therapy

3. METHODOLOGY

Study Design:

The type of this study is a cross sectional type of epidemiologic studies.

Study area:

This study will be conducted in Jazan area, which is located in south-western part of Saudi Arabia between longitude 42 degrees 8, 43 degrees and latitudes 5, 16 degrees and 17 degrees. It's bounded to the north by Asir region and to the south by the State of Yemen and from the east Asir region and the State of Yemen, and the Red Sea to the west.

Study Population :

The focus of this study is on people attending cupping therapy sessions.

Method of Data collection:

The data will be collected through face to face direct interview with the targeted people by the use of structured questionnaire.

Questionnaire:

A questionnaire was designed to collect information on demographic characteristics: age of person, educational status; common practices: initiation of cupping therapy, the effects of cupping. Anthropometric parameters (weight and height) are also will be collected. The Questionnaire consisted of (22) questions, most of them were closed ending and few were opened questions containing the study variables (copy of questionnaire is enclosed) .

4. RESULTS

TABLE 1: Socio - demographic characteristics of the studied group according to gender

Gender Characteristic	Male N(%)	Female N(%)	Total	P value	
Age	18-30 years	42 (33.3)	46 (29.9)	88 (31.4)	0,820
	31-40years	28 (22.2)	40 (26)	68 (24.3)	
	41-50years	33 (26.2)	37 (24)	70 (25)	
	More than 50 years	23 (18.3)	31 (20.1)	54 (19.3)	
Education level	uneducated	8 (6.3)	35 (22.7)	43 (15.4)	0,003
	Read and write	4 (3.2)	7 (4.5)	11 (3.9)	
	primary	6 (4.8)	10 (6.5)	16 (5.7)	
	intermediate	12 (9.5)	7 (4.5)	19 (6.8)	
	secondary	32 (25.4)	27 (17.5)	59 (21.1)	
	University and above	64 (50.8)	68 (44.2)	132 (47.1)	
Marital status	married	99 (78.6)	89 (57.8)	188 (67.1)	0,000
	single	23 (18.3)	48 (31.2)	71 (25.4)	
	divorced	4 (3.2)	6 (3.9)	10 (3.6)	
	widow	0 (0)	11 (7.1)	11 (3.9)	
occupation	student	12 (9.5)	23 (14.9)	35 (12.5)	0,000
	employed	87 (69.0)	53 (34.4)	140 (50)	
	Head house hold	17 (31.5)	60 (39)	77 (27.5)	
	No work	10 (7.9)	18 (11.7)	28 (10)	
Income level	High	20 (15.9)	24 (15.6)	44 (15.7)	0,637
	medium	97 (77)	114 (74)	211 (75.4)	
	Low	9 (7.1)	16 (10.4)	25 (8.9)	

Table 1 provides some background characteristics of people attending cupping therapy. According to the table participants in age range is (18-30) years represent 31.4% of the total attendee. In the same age group males constituted 33.3% compared 29.9% females. Participants who have university or higher educational level were 47.1% The bulk of them were married who represented 67.1% Regarding the occupation status, the percent of employed were the highest it represents 50% , 69% of them were males, compared to 34.4 % of females. Most of them reported medium income level 75.4 % , of them males represent 77% while females were 74% .

High income level = more than 10000 SR

Medium income level = 5000 - 10000 SR

Low income level = less than 5000 SR

TABLE 2: general health state of the study participants according to gender .

Characteristic	Gender	Male N(%)	Female N (%)	Total	P value
General health	Good	106 (84.1)	124 (80.5)	230 (82.1)	0,593
	Bad	2 (1.6)	5 (3.2)	7 (2.5)	
	Not good	18 (14.3)	25 (16.2)	43 (15.4)	
Existing condition	diabetics	9 (7.1)	10 (6.50)	19 (6.8)	0,560
	Heart disease	6 (4.8)	5 (3.2)	11 (3.9)	
	Respiratory disease	5 (4)	4 (2.6)	9 (3.2)	
	Digestive disease	8 (6.3)	12 (7.8)	20 (7.1)	
	arthritis	44 (34.9)	58 (37.7)	102 (36.4)	
	Cholesterol	4 (3.2)	6 (3.9)	10 (3.6)	
	Psychological disturbance	5 (4)	9 (5.8)	14 (5)	
	tumor	0 (0)	5 (3.2)	5 (1.8)	
	No thing	45 (35.7)	45 (29.2)	90 (32.1)	

Table 2: shows general health status of people attending cupping therapy. This table demonstrates the comparison between males and females : Regarding general health state , most of participant were having good general health they represent 82.1% , 80.5% of the females and 84.1% of males , while who recorded bad general health represent 2.5% . The most frequent exist chronic condition was arthritis 36.4% , it represented 37.7% in females and 34.9% in males .

TABLE 3: different characteristics of cupping

Characteristic	Gender	Male N (%)	Female N (%)	Total	P value
Place of cupping	Inside cupping centers	60 (47.6)	74 (48.1)	134 (47.9)	0,942
	Outside cupping centers	66 (52.4)	80 (51.9)	146 (52.1)	
cuppers	professional	63 (50)	78 (50.6)	141 (50.4)	0,948
	Non professional	29 (23)	33 (21.4)	62 (22.1)	
	I don't know	34 (27)	43 (27.9)	77 (27.5)	
Frequency of exposure to cupping	Once	62 (49.2)	98 (63.6)	160 (57.1)	0,078
	Twice	28 (22.2)	28 (18.2)	56 (20)	
	Thrice	15 (11.9)	14 (9.1)	29 (10.4)	
	More than thrice	21 (16.7)	14 (9.1)	35 (12.5)	
Get Infected	Yes	2 (1.6)	6 (3.6)	8 (2.9)	0,086
	No	120 (95.2)	135 (87.7)	255 (91.1)	
	I don't know	4 (3.2)	13 (8.4)	17 (6.1)	

This table demonstrates the comparison between males and females : 52.1 % of participant had cupping outside cupping centers (at home) by cuppers 51.9 % females and 52.4% males . Regarding authority , 50.4% of participants had cupping sessions by cuppers have authority to do it , 50.6% of females while 50% of males . Regarding the number of cupping experience of participants , those who had it once represent 57.1 % , 63. 6 of females and 49.2 % of males while the others more than one .

About getting infection although we expect high percentage of getting infection , but only 2.9 % of all participants get infected

While those who have not been infected represent 91.1% The others recorded that they do not know .

TABLE 4 : medical history of the condition of studied group seeking cupping according to gender .

Gender	Characteristic	Male N (%)	Female (%)	N	Total	P value
Causes of cupping	Back pain	49 (38.9)	52 (33.8)	101	(36.1)	0,533
	Arthritis	32 (25.4)	41 (26.6)	73	(26.1)	
	Anxiety and depression	6 (4.8)	7 (4.5)	13	(4.6)	
	Anemia	2 (1.6)	1 (0,6)	3	(1.1)	
	infertility	4 (3.2)	8 (5.2)	12	(4.3)	
	hypertension	9 (7.1)	5 (3.2)	14	(5)	
	High cholesterol level	2 (1.6)	5 (3.2)	7	(2.5)	
	diabetics	3 (2.4)	2 (1.3)	5	(1.8)	
	migraine	16 (12.7)	21 (13.6)	37	(13.2)	
	Psychological disturbance	1 (0,8)	3 (1.9)	4	(1.4)	
	Others	2 (1.6)	9 (5.8)	11	(3.9)	

This table demonstrates the comparison between males and females : Regarding causes of cupping therapy among people attending therapeutic cupping sessions we found that the most of them had cupping sessions for back pain 36.1% , 38.9 % of males and 33.8 % of females , then arthritis 26.1 % , most of them do it for these two conditions because they don't get benefits or exact treat for these conditions from modern medicine .

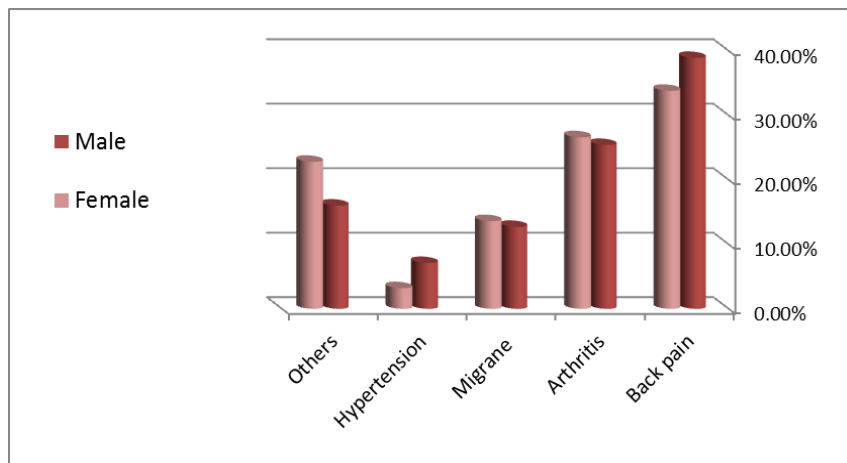


Figure1: why they do cupping

TABLE 5: reasons for choosing cupping rather than traditional medicine .

Gender characteristic		Male N (%)	female N (%)	TOTAL	P VALUE
Why cupping instead of modern medicine	High cost of health care service	2 (1.6)	7 (4.5)	9 (3.2)	0,519
	Thinking that cupping does not have side effect	39 (31)	47 (30.5)	86 (30.7)	
	Thinking that cupping with drugs can give better treatment	40 (31.7)	43 (27.9)	83 (29.6)	
	Thinking that cupping can treat some condition that modern medicine can not	45 (35.7)	57 (37)	102 (36.4)	

This table demonstrates the comparison between males and females :

The bulk of participant recorded that the cupping can treat some conditions that complementary medicine can not , so they had cupping instead of / or with complementary medicine 36.4 % , 37% of females while males represent 35.7 % .

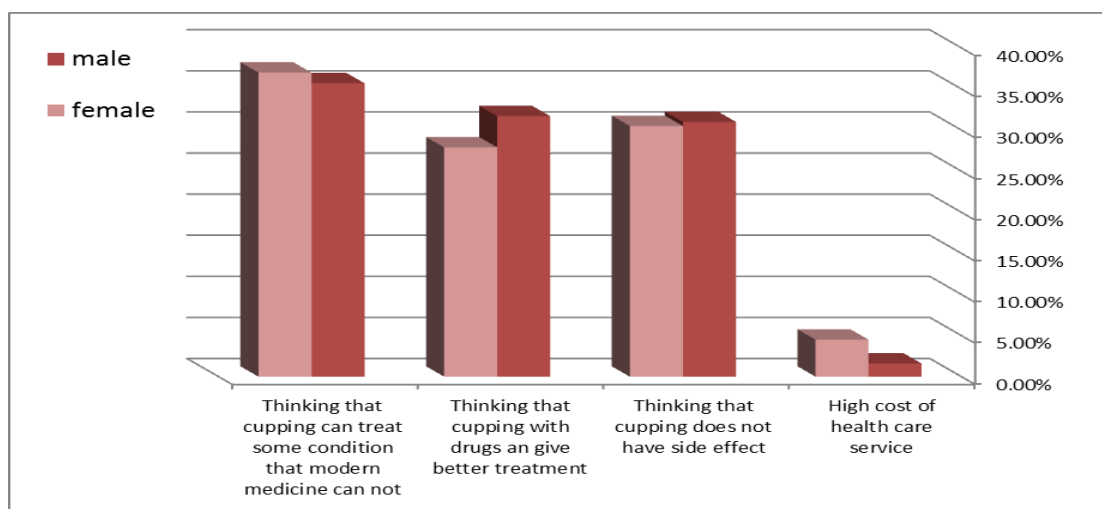


Figure2: reasons for choosing cupping rather than traditional medicine.

TABLE 6 : This table demonstrates the satisfaction , positive impact and personal opinion

Characteristic		Male N(%)	female N(%)	Total	P value
satisfaction	Very satisfied	60(47.6)	72 (46.8)	132 (47.1)	0,435
	Satisfied	43 (34.1)	45 (29.2)	88 (31.4)	
	Partly satisfied	21 (16.7)	30 (19.5)	51 (18.2)	
	Not satisfied	2 (1.6)	7 (4.5)	9 (3.2)	
Positive impact	Yes	105 (83,3)	128 (83,1)	233 (83,2)	0,962
	No	21 (16,7)	26 (16,9)	47 (16,8)	
Personal opinion (recommending cupping)	Yes	114 (90,5)	142 (92,2)	256 (91.4)	0,607
	No	12 (9,5)	12 (7,8)	24 (8,6)	

This table shows the satisfaction , personal opinion of participants and positive impact about their cupping , the extent of satisfaction about cupping experience among participants were high , very satisfied 47.1% , 31.4% satisfied the total 78.5% ,partially satisfied 18.2% while not satisfied represent 3.2% ,

High percentage of participants were satisfied and they recommend the cupping to others 82. 5% had positive impact so they recommend cupping to others 91.4% while 16.8% feel no impact from cupping.

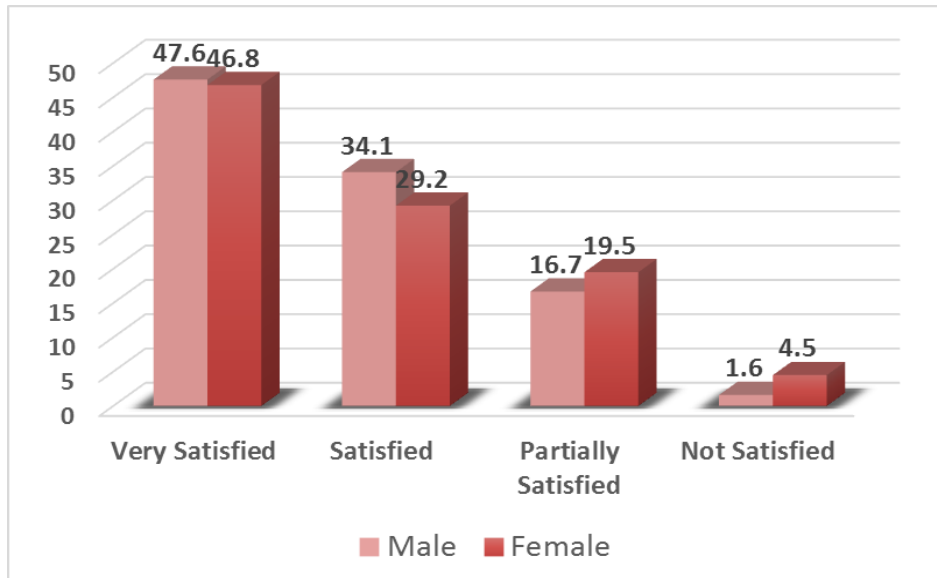


Figure 3 : Degree of Satisfaction of study population with cupping therapy

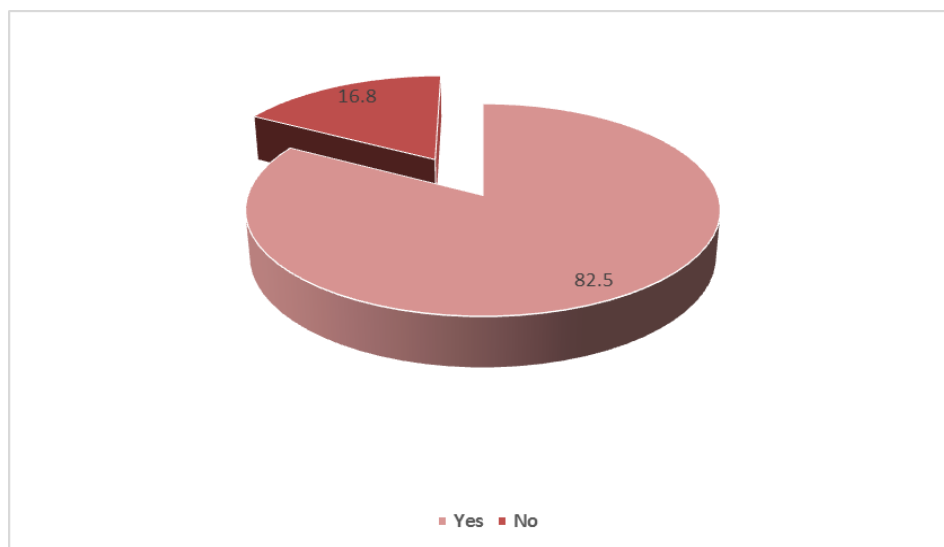


Figure 4: Positive impact of Cupping Therapy

5. DISCUSSION

Epidemiologic features:

In our study the frequent age that attend cupping therapy sessions are 18-30 years percent 31.4% and this finding is interfering with our expectation , that the frequent age will be more than 40 , this indicates that age group 18 – 30 is more interesting in cupping therapy than others , because may they read about cupping from modern sources . No much difference in age according to gender.

The bulk of them have university or higher educational level by percent 47.1% , the married participants have the highest level by percent 67.1 % . Those who are employed represent 50%. Participants with medium income level represent 75.4% among all participants the bulk of them had sessions by cuppers outside cupping centers at home by percent 52.1%.

Factors:

In our study the bulk of participants have a good general health state by percent 82.1% they may take it as a preventive strategy , most of them recorded that they have arthritis as an existing condition by percent 36.4 % , they attend cupping sessions due to thinking that cupping can treat some condition that modern medicine can not treat by percent 36.4 % , then those who think that cupping does not have side effects represent 30.7 % , those who have one session are the most they represent 57.1%. The average cost of cupping is 200 by percent 38.6%

Conditions use cupping as a treatment:

In our study the highest cause for attending cupping sessions was back pain 36.1% , arthritis 26.1% , migraine 13.2% and hypertension 5%.

The result is an agreement with the study conducted in Unani System of Medicine in 2005 which concluded that concluded that cupping is an effective therapy for the treatment of arthritis .

It is also an agreement of other study conducted in Iran in 2007 that concluded that wet cupping may be an effective method of reducing LDL cholesterol in men and have a preventive effect against atherosclerosis.

It is also an agreement of other study conducted in Germany 2008 which concluded that the cupping may be effective in relieve the pain and other symptoms related to CTS .

Complications:

In our study we investigate to see if there are complications

About getting infection although we expect high percentage of getting infection , but only 2.9 % of all participants get infected

Common practices:

In our study the extent of absolute satisfaction of our participants 78.5 % While those who are partially satisfied represent 18.2% And not satisfied represent 3.2% Most of them recorded that they had positive impact after cupping sessions 82.5%

High percentage of participants were satisfied and they recommend the cupping to others by percent of 91.4 %

6. CONCLUSION

Attending therapeutic cupping sessions show that the frequent age attending cupping therapy sessions 18-30 years old , The bulk of them have university or higher educational level , the most of them are married

The most important factor in attending cupping sessions is arthritis and thinking that cupping can treat some condition that traditional medicine can not

The highest cause for attending cupping sessions was back pain then arthritis There are no complications unless 2.9 %

Most of them have high extent of satisfaction and positive impact after cupping sessions.

7. RECOMMENDATIONS

Finally and according to our study results we recommend the followings:

- Ministry of health should monitor and evaluate of cupping centers regarding sterilization, so as a void infections and disease transmission.
- Development of health education program administered to general population with the aim of avoiding infections in cupping centers.
- Cupping therapy centers should be given advanced training program regarding infection control strategies.
- Ministry of health should provide the citizens with the list of authorized names of centers .

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