



Assessment of wet cupping on reducing pain for peoples complaining in pain in the Hijama clinic Makkah at Saudi Arabia 2021.

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Abstract: Background: As part of the Umami system of medicine, the practice of wet cupping (Al-hijamah) is widely used across the globe. Wet cupping, on the other hand, increased oxygen saturation, eliminated lactate from subcutaneous tissues, removed blood carrying greater amounts of malondialdehyde and nitric oxide, and increased myeloperoxidase activity. No enough research has been done on the proteome effects of wet cupping treatment. As a result, future research on wet cupping should make use of systematic and sound processes to prevent bias. Many illnesses may be prevented and treated using a wide range of methods in this area. CAM has been proved to be a successful modality for disease prevention, treatment of non-communicable illnesses, and enhancing the quality of life of those with chronic medical disorders. 2 The results of CAM may satisfy many patients, who are dissatisfied with standard therapy, especially those with chronic conditions. **Aim of the study:** The purpose of the research was to examine the effects of wet cupping on patients who had been to the Hijama clinic in Makkah City, Saudi Arabia, complaining of pain. **Method:** Patients who visited the Hijama clinic in Makkah, Saudi Arabia, between January 2019 and December 2019 had their medical data reviewed retrospectively. During the course of 2019, we saw a total of 200 patients. 120 of them individuals were included in the trial because they were reporting pain. Chi-square and multivariate logistic regression were used to examine the relationship between different socioeconomic factors and the usage of wet cupping in the study participants. **Results:** Chi-square tests were used to establish the link between the frequency with which WCTs were used and the primary complaint. Chi-square $X^2 = 86.663$, $p = 0.001$ showed a statistically significant link between the two. **Conclusion:** Wet cupping has been shown to help in pain relief. Cupping is advised as a supplemental therapy method for chronic medical problems, notably pain, since there are encouraging outcomes in favor of utilizing wet cupping for increasing quality of life in patients with chronic disorders.

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1. Introduction

Bone pain is a frequent health issue that limits one's ability to do things. In other nations, such as Saudi Arabia, pain is not restricted to a certain age or gender. Traditional medicine has sparked a surge of

interest in Saudi Arabia, not only among the general people but also among medical practitioners, decision-makers, and researchers (1).

Aching, soreness, or other pain may be felt in certain regions of the bones of patients with bone

pain, whether they are moving or not. Osteoporosis, metastatic bone cancer, sickle cell anemia, osteomyelitis, leukemia, and pregnancy-related pelvic girdle pain are only few of the conditions that may cause this pain, as can trauma or a shortage in calcium and vitamin D. These include religious healing, cupping, honey healing, and herbal treatment in Saudi Arabia. It is common in Saudi Arabia for people to seek out traditional methods of pain alleviation. Traditional pain treatment approaches are generally thought to be safe, however there are some that may really be harmful (2).

There are a variety of ways to alleviate bone pain, including painkillers, antibiotics, nutritional supplements, cancer therapies and surgery (3). According to the Zurich claudication questionnaire (ZCQ), acupuncture was much more efficient than physical activity in relieving pain and was rated as more acceptable than medicine (4). Doubts abound about the efficacy of conventional medicine in treating persistent and unrelenting pain. In Saudi Arabia, there is a dearth of trustworthy information on the usage, safety, and efficacy of conventional pain management methods (5).

Countries have different rates of chronic pain. The incidence in underdeveloped nations is estimated to be 24%, but the prevalence in affluent countries is 28% according to a recent review research. [6]. Therapeutic alternatives to traditional therapy are sought out most often by those who suffer from pain (7, 8).

Complementary and alternative medicine, sometimes known as T&CM, is a broad term that encompasses a wide variety of treatments not found in mainstream medicine. T&CM and contemporary medicine, on the other hand, are now delivered in conjunction as part of an integrated healthcare strategy. T&CM and contemporary medicine are often offered in an integrated healthcare strategy in modern medical institutions. "Complementary and alternative treatments (CAM)" are broad phrases used to describe a wide range of health care techniques that are not rooted in a country's own traditions (1). According to previous surveys, the global prevalence of CAM use ranges from 5% to 74.8 %. (9). Complementary and alternative medicine (CAM) is believed to be used by roughly a third of American citizens (10). CAM is becoming more popular in Europe and other affluent nations in recent years. People in Belgium (38%) have tried complementary and alternative medicine (CAM) at least once, as have adults in France (75%) and Australia (48%) and Canadians (70%) (World Health Organization) (11).

Islamic medicine recommends cupping as a supplemental therapy since it is a well-known complimentary medication and an old treatment (12.)

It is possible to use dry or wet cups while doing cupping therapy (WCT). As the name suggests, dry cupping is the practice of utilizing a suction to draw blood from various parts of the body without making any cuts. "The approach of applying a vacuum at various spots on the body, but with incisions in order to remove blood which is just under the surface of the skin," as outlined in this study, is the subject of this research (13). Hijama is an Arabic term that translates as "sucking" in the Middle East and most Arab nations (14).

1.1 Literature Review

Patients with persistent non-specific neck pain reported improved physical performance and quality of life after receiving a series of cupping treatments, according to Lauche et al.18. According to a study published in 2012, a single session of traditional cupping was shown to improve pain and quality of life (especially physical function) in individuals with persistent non-specific neck pain (15, 16).

Wet cupping (Hijama) is an ancient medicinal practice that has been widely used to treat several ailments, including as acute and chronic inflammation, communicable infections, and disorders of the immune system, according to Mohamed El Sayed et al., 2014. (17).

Another Iranian research (18) indicated that individuals with non-specific low back pain were able to tolerate and benefit from traditional wet cupping in a primary care environment. Wet cupping for pain treatment has been shown to be effective and safe in a pilot trial of 32 volunteers in South Korea. However, a limited pilot sample was included in their findings.

Cupping therapy has been used to treat and cure a wide range of pain disorders. Cupping has been suggested as a way to reduce herpes pain (20). Rheumatoid arthritis (21, 22), fibromyalgia (23, 24), chronic nonspecific low back pain (25), acute trigeminal neuralgia (23), migraine (26) and tension headache (27) are some of the most common headaches (27).

Another research done by Teut et al(28) looked at the effects of cupping treatment on 21 individuals with knee osteoarthritis pain and found it to be helpful. The cupping group had considerably higher scores on the short form 36 of the physical domain than the control group, according to their findings.

According to a research done by Mohammad et al. in Riyadh, people with medical neurological diseases utilize Traditional Medicine in certain ways. Wet cupping was found to be the most popular technique of Traditional Medicine in this research (45.4 percent), followed by herbs, skin cauterization,

and reciting the Holy Quran (29).

Alzahim et al. conducted a research in Saudi Arabia on the usage of complementary and alternative medicine (CAM) by Saudi patients with liver illness in a tertiary care facility. It was determined by researchers that 14 percent of the patients had tried WCT and 60 percent had approved it as an effective therapy for their diseases. Other disorders should be included in future investigations, according to the authors (30).

1.2 Rationale

Many people across the globe rely on traditional medicine for their health treatment, according to the World Health Organization (WHO). For health and well-being, eighty percent of the population in poor nations and sixty-five percent of the population in industrialized countries rely on traditional medicine. As a result of this, cupping's use has been raised from outside the medical sector and has improved the outcome. However, traditional medicine's practice and use varies according to socioeconomic position, geographical, religious, spiritual and cultural views (Harris et al. 2012). In addition, the MOH has made many people aware of its offerings, with a particular focus on primary health care (PHC). Vision 2030 for organizing and defining wet cupping work will help Saudi Arabia's healthcare organizations enhance the quality of their systems.

1.3 Aim of the study:

The purpose of the research was to examine the effects of wet cupping on patients who had been to the Hijama clinic in Makkah City, Saudi Arabia, complaining of pain.

1.4 Objectives:

1. To assess the impact of wet cupping on pain patients attending the Hijama clinic in Makkah City, Kingdom of Saudi Arabia.
2. To assess the patterns of wet cupping for patients with pain who were sent to a Hijama clinic in Makkah, Saudi Arabia. Throughout the months of January and December of 2019.

2. Materials and Methods:

2.1 Place of Study:

The research was conducted in Makkah, Saudi Arabia's second biggest city after Riyadh, the country's capital. The research was carried out at the Hijama Clinic. Patients referred from various clinics to Hijama Clinic for wet cupping treatment for a variety of medical issues.

2.2 Study Design:

The medical data of patients who visited Hijama clinics were used in this research, which was analytic retrospective record review.

2.3 Sample size and Study Population:

Between January 2019 and December 2019, 280 patients came to the clinic. 120 of the 280 patients who came to the clinic in 2019 had a primary complaint of pain, according to the facility's records.

The medical records of patients who were sent to Hijama's clinic with a primary complaint of pain were analyzed in our current retrospective record analysis. 80 records were eliminated because pain was not their primary complaint or because they had been referred to the clinic for a non-pain-related issue.

3. Data collection

3.1 Data collection tool (instrument):

The principal investigator's data collecting sheet was utilized to examine data from the medical records. There were three parts on the data collecting sheet:

- 1) Section devoted to demographic data (as: age, gender, marital status, nationality, monthly income and residence, occupation, level of education).
- 2) Section on past and present medical conditions: (as: history of other diseases, reason for referral and the main diagnosis, medication in use, history of chronic diseases in family)
- 3) Section on 'wet cupping treatment' (as: sessions number, each session date, region number of cupping anatomical points, treatment history, as well as an anticipation of progress, with Hijama).

3.2 Inclusion criteria

1. Patients between the ages of twenty-five and fifty-five
2. Referred by a Cupping Clinic or another Medical Facility.
3. Medical problems that persist.
4. Recognized the research method,
5. A three-month or longer disease
6. Accepted in participating ,
7. Willing to sign an informed consent form for the research (after reading the protocol and accepting it).

3.3 Exclusion criteria

1. Patients were not allowed to participate in the trial if they did not meet the eligibility requirements.

2. Refusing to follow the research protocol.
3. Had mental health problems that impeded their capability to complete their studies.

3.4 Data Collection technique:

From January 2019 to December 2019, Hijama clinic patients' medical records were used to compile the statistics. Every medical record at this clinic is on paper and is divided into four sections: As part of a self-reported questionnaire filled out by patients, it asks about socio-demographic data, medical history (past or present), family medical history (if applicable), medicine currently being used, and the patient's expectations for improvement with Hijama. An important laboratory investigation and a medical progress record, as well as the grounds for referral and medical history, comprised the second section.

Anatomical sites on the Hijama are noted on the consent form, which also includes the date of each session and the location of the cupping sessions. The last section is a form for evaluating pain.

After the first two to three sessions, patients are usually followed up for at least a month before they return to the clinic for another cupping treatment. Cupping sessions typically take approximately an hour. Using an alcohol swab to clean the target region, the cup is put on the desired spot, and the air within the cup is suctioned out using electrical or manual suction in the Hijama clinic's wet cupping treatment. After 3 to 5 minutes of clinging to skin, the cup is removed. To begin the procedure, the cup is removed and five parallel incisions are made on the skin using surgical blades that are between 4 and 8 cm long and 0.2 mm to 0.3 mm deep. Repeated suctioning of the same region is performed using the cup. The cupping treatment is done two to three times without requiring any skin incisions. Finally, gauze and a plaster are applied to the patient's skin.

3.5 Ethical considerations:

Before commencing fieldwork, this research was approved by the administrators of hijama treatment facilities and especially in Makkah.

Wet cupping patients at the Clinic completed

a permission form confirming that they will be utilized in various sponsored research. This study used a data collecting sheet to gather information from medical files kept in Hijama Clinic records storage. Records were not copied, and they were not transported outside of the clinic. In order to protect the privacy of the data acquired, they were solely utilized for research purposes.

3.6 Statistical analysis:

SPSS version 24 was used to do statistical analysis on the data. For continuous variables, descriptive analysis was reported as means and standard deviations, while frequency and percentage were used to provide results for categorical variables. As long as the P-value is inside the 95 percent confidence range, it's deemed significant. Chi-square and multivariate logistic regression were used to examine the relationship between socioeconomic factors and the usage of wet cupping.

4. Results

Table 1 show that 200 patients visited the clinic in 2019, with women accounting for the majority (68.0%). The 35-45 year age group had the highest percentage (35.0%), while the >55 year age group had the lowest (11.0 present). Secondary school was the most frequent educational level (29.0 present). Seventy-eight present of the patients were married. More over half of the patients (55.0%) had an average monthly income. Employees make up the majority of the patients (75 present). Chronic illnesses affect more than (69.0 percent of the population).

Other types of therapies were described by patients (80.0 percent). The majority of individuals who took traditional pain relievers (NSAIDs) did so (66.0 percent). Those who employed other forms of complementary and alternative medicine (CAM) (62.0 percent) There were 21.0 percent who took herbal medicine, 10.0 percent who utilized nutritional supplements, and other who used acupuncture (7.0 percent). Because of missing data, the variable has less than the 231 total frequencies.

Table (1) Distribution of Socio-demographic Patient characteristics at Hijama Clinic with complaints of pain (n=200)

	N	%
Age		
<25	30	15
25-35	42	21
35-45	70	35
45-55	36	18
>55	22	11
Gender		
Female	136	68
Male	64	32
Marital Status		
Single	44	22
Married	156	78
Level of Education		
Illiterate	20	10
Primary School	24	12
Intermediate School	40	20
Secondary School	58	29
University School	42	21
Postgraduate	16	8
Occupation		
Working	150	75
Not work	50	25
Income		
Poor	42	21
Average	110	55
Good	48	24
Chronic diseases		
No	62	31
Yes	138	69

Back pain (40.0 percent) was the most popular cause for referring patients to Hijama clinic in 2019, followed by neck, shoulder, and joint pain (31.0 percent), and headaches and migraines (20.0 percent) (29.0 percent).

In terms of how often WCT was used in the clinic, the majority of patients (39.0 percent) used it two to three times, while (33.0 percent) used it four times or more, and (28.6 percent) used it two to three times. Only 37.0% of these patients employ wet cupping on the lunar months' Sunnah Days.

Table 3 demonstrates that a chi-square test of independence was used to examine the relationship between WCT usage and the primary complaint. All cell frequencies predicted were higher than or equal to four. There was a statistically significant relationship between them, Chi-square $X^2 = 86.663$, $p = 0.001$. When it came to the frequency of WCT for Neck, Shoulder, and Joint Pain, the majority of patients conducted cupping for total (62 percent), whereas headaches and migraines were total (62 percent) (58.0 percent)

Table (2) Patterns of WCT usage among patients complaining of pain who visit Hijama clinic and distribution of various forms of therapy used with wet cupping.

	N	%
Use of conventional Treatment(CT) or Other CAM types		
Yes	160	80
No	40	20
User of Conventional Treatments (n=135)		
NSAIDs	89	66
Opioids	28	21
Others	18	13
User of other CAM (n=65)		
Herbal	40	62
Acupuncture	7	10
Food Supplements	14	21
Others	4	7
Reason for referral		
Back Pain	80	40
Neck, Shoulder and joint Pain	62	31
Headaches and Migraine	58	29
Frequency of WCT use in the clinic		
Once	56	28
Two to three	78	39
More than or equal to four	66	33
WCT performed in Sunnah days		
Yes	74	37
No	126	63

Table (4) shows a whole, socio-demographic variables such as age, gender, education, occupation and income all had statistically significant associations with WCT usage. However, having additional chronic conditions did not have a statistically significant connection ($\chi^2 = 0.291, P=0.589$) with WCT use.

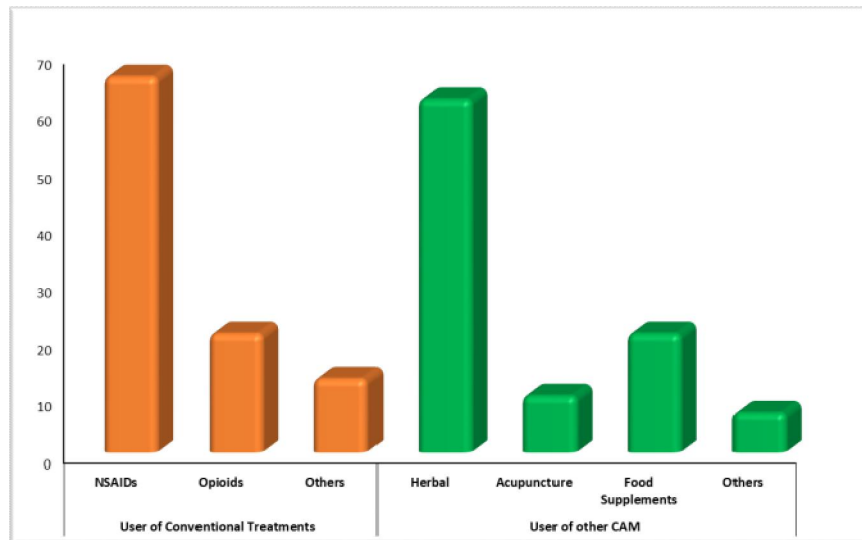


Figure (1) Patterns of Wet Cupping Therapy (WCT) usage among patients who visited Hijama's clinic with complaints of pain

Table (3) The relationship between WCT usage and the most common complaint of (Neck, Shoulder and joint Pain, Headaches and Migraine)

			Frequency of WCT use			Total
			Once	Two to three	More than or equal to four	
Main complaint	Back Pain	N	17	14	49	80
		%	30.4%	22.6%	59.8%	40.0%
	Neck, Shoulder and joint Pain	N	30	32	0	62
		%	53.6%	51.6%	0.0%	31.0%
	Headaches and Migraine	N	9	16	33	58
		%	16.1%	25.8%	40.2%	29.0%
Total		N	56	62	82	200
		%	100.0%	100.0%	100.0%	100.0%
Chi-square		X ²	86.663			
		P-value	<0.001*			

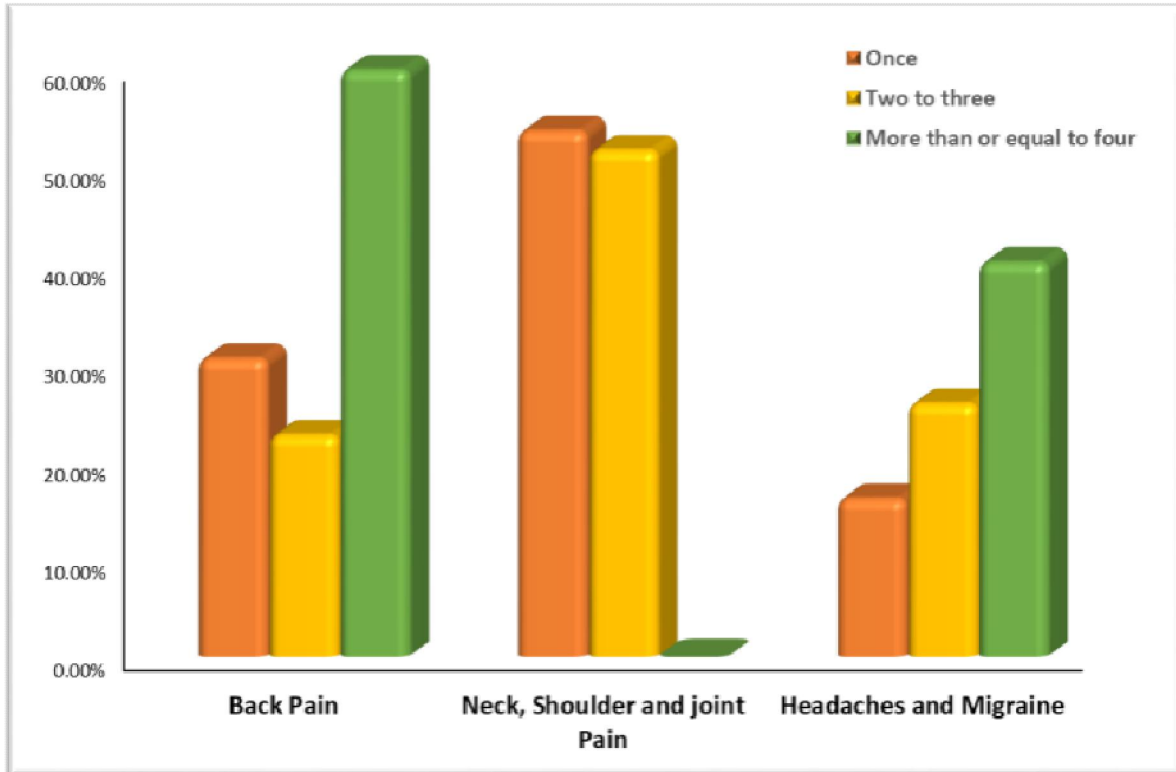


Figure (2) The relationship between WCT usage and the most common complaint of (Neck, Shoulder and joint Pain, Headaches and Migraine)

Table (4) The distribution of the relationship between the demographic data and the variables of wet cupping use (gender, age, Occupation, Level of education, Chronic diseases , economic level)

		Use WCT only (n=40)		Use WCT simultaneously along with CT or other CAM types (n=160)		Total		Chi-square	
		N	%	N	%	N	%	X ²	P-value
Age	<25	10	25	20	12.5	30	15	9.131	0.05*
	25-35	12	30	30	18.75	42	21		
	35-45	9	22.5	61	38.125	70	35		
	45-55	7	17.5	29	18.125	36	18		
	>55	2	5	20	12.5	22	11		
Gender	Female	12	30	124	77.5	136	68	31.266	0.000*
	Male	28	70	36	22.5	64	32		
Marital Status	Single	10	25	34	21.25	44	22	0.256	0.613
	Married	30	75	126	78.75	156	78		
Level of Education	Illiterate	11	27.5	9	5.625	20	10	39.665	0.000*
	Primary School	7	17.5	17	10.625	24	12		
	Intermediate School	15	37.5	25	15.625	40	20		
	Secondary School	2	5	56	35	58	29		
	University School	3	7.5	39	24.375	42	21		
	Postgraduate	2	5	14	8.75	16	8		
Occupation	Working	15	37.5	135	84.375	150	75	33.321	0.000*
	Not work	25	62.5	25	15.625	50	25		
Income	Poor	30	75	12	7.5	42	21	75.938	0.000*
	Average	8	20	102	63.75	110	55		
	Good	2	5	46	28.75	48	24		
Chronic diseases	No	11	27.5	51	31.875	62	31	0.291	0.589
	Yes	29	72.5	109	68.125	138	69		

5. Discussion:

This research examines the effects of wet cupping on patients at the Hijama clinic in Makkah City, Saudi Arabia, who were complaining of pain. Complementary and alternative medicine (CAM) usage has often been examined as a whole rather than as a subset in prior investigations. Contrarily, we examined whether patients preferred WCT over cupping alone in our research.

Traditional and complementary medicine (C&TM) is becoming more popular in Saudi Arabia. The average annual out-of-pocket cost of C&TM visits and products in Saudi Arabia, according to a recent survey, was \$560 (1, 31, 32).

After back pain, neck, shoulder, and joint pain, and headaches and migraines, we found that wet cupping was the most popular treatment for these conditions among patients who visited a hijama clinic (29.0 percent). These findings are in line with those of the Korean health panel survey, which found that the most common reason people sought out complementary and alternative therapy was musculoskeletal pain. In addition, we found a strong correlation between the kind of pain and the frequency with which patients used wet cupping in our research, indicating that those with back pain use cupping more often than those without (22).

Only a few patients in this research predicted a partial or no recovery after wet cupping usage, whereas the majority of patients expected full recovery. This result echoes one from a study of cancer patients that came to the same conclusion (33).

Patients with chronic conditions are more likely to use wet cupping in conjunction with other therapies rather than using cupping alone, according to this research. Patients with chronic disorders are more likely to be referred from other clinics because of their pain than other patients who are seeking treatment for co-morbidity, increasing the likelihood that they will get conventional therapy. In addition, individuals with long-term illnesses are more likely to turn to complementary and alternative medicine (CAM) (22, 23, 34). One explanation for why women are more likely than men to use cupping, as well as other treatments, is because women use health care services at a higher rate (34). Patients in primary care were polled, and it was revealed that 69% of those with chronic musculoskeletal pain used a mix of CAM and CT, with women being much more likely to do so (18).

Wet cupping is more often used in conjunction with other therapies in individuals over the age of 45-55 in this research. Contrary to previous reports, younger patients seem to utilize complementary and alternative medicine (CAM) at a higher rate than their elders (35, 33). Even yet, it's reminiscent of research from Saudi Arabia and Korea that revealed older people are more prone than younger people to use CAM (32, 29).[

Mohammad et al. observed no correlation between socio-demographic characteristics and CAM usage, although this is not the case here (936). Findings are consistent with earlier research that found a correlation between education, residence, or employment and a person's socioeconomic status (28, 34, 36). Because of the differences in populations, research design, and CAM types employed in earlier studies, this discrepancy in outcomes may be explained.

In order to prioritize health services and identify patients who regularly utilize wet cupping treatment, it is critical to have an understanding of the factors and patterns of this widespread CAM method. In addition, this will aid in the formulation of patient-centered policies and the incorporation of WCT into government health services, which will be given alongside traditional therapies for patients with various chronic illnesses in addition to pain.

Conclusions:

The most prevalent reason for a referral to the Cupping Clinic was discomfort. Most of the domains

of patients with chronic medical illnesses improved after wet cupping (Hijama) treatments. Improvements were also observed that musculoskeletal pain-related disorders were the most prevalent cause for employing wet cupping among patients who visited a hijama clinic complaining of pain. As a result, the findings of this research will assist the government in determining the characteristics of WCT users and developing policies to meet the requirements of these patients. According to the research, there are encouraging results in favor of employing wet cupping to help patients with chronic diseases. Cupping is advised as a supplemental therapy option for chronic medical issues, which is consistent with Hadith's recommendations.

Budget: Non

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