

## Prevalent practice and attitude toward Wet Cupping Therapy

Ali A Bu-Khamseen<sup>1\*</sup>, Alya A Bu-Khamsin<sup>2</sup>, Abdullah A Alnaim<sup>2</sup>, Zahra E Alabbad<sup>3</sup>, Hussain A Alturaifi<sup>4</sup>, Fatimah A Alkhawajah<sup>5</sup>, Wedad M Alabbad<sup>2</sup>, Fatimah M Alhashem Alsayed<sup>2</sup>, Mohammed A Alnajjad<sup>6</sup>, Haidar Alabdrabulridha<sup>7</sup>, Hassan K AlBohassan<sup>7</sup>, Sadiq Bassam Busaleh<sup>8</sup>, Mohammed Ali Als Salman<sup>9</sup>, Ryhana Mohammed Aljumaiah<sup>2</sup>, Hussain S Alsultan<sup>10</sup>

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### Authors' Affiliation:

<sup>1</sup>Family medicine department, Ahsa health cluster, AlAhsa, Saudi Arabia

<sup>2</sup>Family medicine department, King Faisal University, AlAhsa, Saudi Arabia

<sup>3</sup>Cardiology department, Prince Sultan Cardiac Centre Hospital, AlAhsa, Saudi Arabia

<sup>4</sup>Emergency department, Aljafer General Hospital, AlAhsa, Saudi Arabia

<sup>5</sup>Doctor of pharmacy, King Faisal University, AlAhsa, Saudi Arabia

<sup>6</sup>Mansoura University, Mansoura Manchester Medical Program

<sup>7</sup>Preventive medicine public health department, Ahsa health cluster, AlAhsa, Saudi Arabia

<sup>8</sup>Family medicine department, Dar Aluloom University, Riyadh, Saudi Arabia

<sup>9</sup>Internal medicine department, Prince Saud Bin Jalawy Hospital, Al-Ahsa, Saudi Arabia

<sup>10</sup>Food and Nutrition department, Prince Saud Bin Jalawy Hospital, AlAhsa, Saudi Arabia

### \*Corresponding Author

Family medicine department, Ahsa health cluster, AlAhsa, Saudi Arabia

Email: [ali.bokhamseen.4@gmail.com](mailto:ali.bokhamseen.4@gmail.com)

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### ABSTRACT

**Background:** Hijama (wet cupping) is a traditional technique that improves blood circulation. However, the results of this procedure are still debatable. As a result, the purpose of this research is to evaluate the knowledge, attitude and practice of persons who underwent cupping at the Qabasat Alkhair facility in the Al Ahsa area. **Methods:** A 400-person cross sectional research was conducted. All participants were chosen from the Qabasat Alkhair facility and received cupping treatment between 2021 and 2022. **Results:** Cupping was performed on 263 (65.8%) of the individuals for therapeutic objectives, whereas 137 (34.3%) were done for preventative ones. Before cupping, 102 (25.5%) of the participants received medical advice. 371 (92.8%) of research participants said they would recommend cupping to others and 377 (94.3%) said they plan to practice it in the future. **Conclusion:** Patients found traditional wet cupping therapy in a primary care setting to be safe and acceptable. The current study's findings imply that wet cupping has a therapeutic advantage. Participants report no adverse effects after therapy.

**Keywords:** Wet cupping, awareness, risk factors, Al Ahsa, Saudi Arabia

### 1. INTRODUCTION

The technique of wet cupping (Hijama) has a long history and is performed in several nations and cultures. In traditional and alternative medicine, cupping has been given a variety of meanings. However, it is generally accepted that a negative pressure cup is used to remove blood and other material (Qureshi et al., 2017). In 400 BC wet and dry cupping was reportedly used as a treatment for a variety of illnesses, including maldigestion, anorexia and headaches. Hippocrates advocated cupping for gynecological, back, limb, respiratory and ENT problems. The ancient Egyptian papyrus Ebers mentions cupping treatment.

Ancient Europe also used cupping treatment. It was used in the first century AD to treat and remove poison from bites and abscesses. Wet cupping

was used to treat uterine prolapsed, epilepsy, cholera and ileus in the second century AD. Prophet Muhammad (PBUH) listed cupping treatment as one of the three therapeutic modalities with notable positive outcomes. The operation is straightforward: A cup shaped instrument is used to provide negative pressure to the skin, after which tiny incisions are made in the same location and blood is drawn. Cupping treatments may be used to several body parts most often, the back, then the head, the chest, the belly, the buttocks and the legs (Aboushanab and AlSanad, 2018). There is still debate about the specific mechanism through which cupping produces its therapeutic effects.

Several hypotheses however have been presented. According to one-way, wet cupping acts as an artificial kidney. Wet cupping can filter hydrophilic and hydrophobic materials by high pressure filtration, but a normal kidney can only filter hydrophobic items that pass through the glomeruli. Suctioning generates high pressure, which increases blood flow to the region, resulting in enhanced capillary filtration rate and evacuation of filtered and interstitial fluid and chemicals. This fluid is thought to be high in toxins, inflammatory mediators and prostaglandins. Furthermore, scalpel scratches increase innate and acquired immunity by increasing inflammatory cell migration and endogenous opioid release. This, in turn leads to increased blood flow, toxin clearance, neuroendocrine balance restoration, increased oxygen delivery and tissue perfusion.

Wet cupping is also regarded to be beneficial because the mechanism it induces promotes blood circulation, allowing blood stasis and waste materials to be removed from the body. Furthermore, the neurological system may be activated as a result of the direct destructive impact on the skin and blood vessels, resulting in the release of certain useful compounds for the body (Umar et al., 2018). According to one research, cupping might be used as a supplemental therapy strategy for diabetics in addition to other treatment modalities. However, the results of this technique are still debatable, since it is claimed that it may alleviate discomfort such as lower back and neck pain, headache, hypertension and coronary artery disease (Vakilinia et al., 2016). Although many drugs are used to treat chronic disorders such as hypertension, some are contraindicated in certain situations, such as ACE inhibitors in hyperkalemia and bilateral renal artery stenosis, diuretics in gout and beta blockers in bradycardia and heart block (Khalil et al., 2022).

The 2019 ACC/AHA Guidelines on the Primary Prevention of Cardiovascular Disease recommended lifestyle changes for all high blood pressure patients. Weight loss, healthy eating, exercise, a low-sodium diet and alcohol restriction are these changes (Arnett et al., 2019). Thus, cupping may assist. Despite its unpopularity in the 17th and mid 18th centuries, modern medicine has revived it. Cupping therapy is used to prevent, cure and promote health in several domains. Cupping therapy, a conventional medical treatment with a good safety record, has a complicated background (Qureshi et al., 2017). A meta-analysis of over 135 researches from 1992 to 2010 indicated that cupping therapy coupled with other TCM therapies was more successful than other treatments alone in curing patients with herpes zoster facial paralysis, acne and cervical spondylosis. Trials reported no major side effects (Cao et al., 2012). A randomized controlled experiment compared medication treatment to cupping on cerebral vascular function. Cupping seems to improve vascular compliance and filling (Lee et al., 2010).

In retrospective research on hypertension patients, three sessions of wet cupping reduced SBP from 149.2 to 130.8mm Hg (P value < 0.01) (Al-Tabakha et al., 2018). Finally, a thorough study showed that cupping may reduce discomfort (Lee et al., 2011). Some Saudi Arabian research examined alternative medicine and cupping awareness, attitude, public understanding and practice. A Riyadh survey found that complementary and alternative medicine is popular and well liked (CAM). Most individuals were hesitant to discuss CAM with their doctors (Elolemy and Albedah, 2012). Al Ahsa had no such research. Thus, the research examines Al Ahsa's Qabasat Alkhair center cuppers' knowledge, attitude and practice.

## 2. MATERIAL AND METHODOLOGY

### Study design and population

The 400 participants in this cross-sectional research ranged in age from 18 to 70 and had just completed receiving wet cupping at the Qabasat Alkhair facility. Any individual under the age of 18, any woman who is pregnant, anybody who has a dermatological condition at the site of cupping and anyone who has a viral ailment that blood products may transmit were all prohibited. With a confidence range of 95%, a standard deviation of 0.5 and an error margin of 5%, 375 samples were the bare minimum needed a well-organized, self-administered questionnaire that includes knowledge sections with both closed and open-ended questions and biographical information. It was sent straight to those who had just done their cupping through social media.

### Data analysis

The data was collected between 2021 to 2022. An electronic questionnaire was employed to collect responses from social media members. Following data extraction, it was reviewed, coded and entered into the statistical program IBM SPSS version 22. (SPSS,

Inc. Chicago, IL). Twotailed tests were used for all statistical analyses. A P value of less than 0.05 was considered statistically significant. Each right response (positive answer) was worth one point for knowledge and perception questions and the total sum of the discrete scores for the various items was computed. A participant with less than 60% of the total score was regarded to have bad knowledge, whereas a person with 60% or more was judged to have high knowledge. All variables, including participant age, gender, cupping preceding acts, cupping motivator and experienced side effects, were subjected to descriptive analysis based on frequency and percent distribution. In addition, the participants' knowledge and assessment of cupping, attitude and desire to use and overall pleasure were recorded. Crosstabulation was utilized to measure participants' data and satisfaction, as well as their knowledge and perception level cupping. For tiny frequency distributions, Pearson chisquare and exact probability tests were used to examine relationships.

### 3. RESULTS

The survey was filled out by 400 individuals who met the inclusion criteria. Participants' ages varied from 18 to over 50, with a mean of 43.2 and 12.6. There were 223 individuals who underwent cupping or 55.8% of them were women. 311 individuals in total were married and 66 (16.5%) were not. In terms of education level, 236 (59%) had a university degree, 118 (29.5%) had a secondary degree and 46 (11.5%) had a below secondary degree (Table 1).

**Table 1** Personal data of people underwent cupping in QabasatAlkhair centre in Al Ahsa region

Personal data	No	%
Age in years		
< 20	9	2.3%
20-29	48	12.0%
30-39	111	27.8%
40-49	134	33.5%
50+	98	24.5%
Gender		
Male	177	44.3%
Female	223	55.8%
Marital status		
Single	66	16.5%
Married	311	77.8%
Divorced / widow	23	5.8%
Educational level		
Below secondary	46	11.5%
Secondary	118	29.5%
University	236	59.0%

Study participants' use of cupping and its negative consequences in Al Ahsa, Saudi Arabia. A total of 263 individuals (65.8%) had cupping for therapeutic reasons, whereas 137 people (34.3%) underwent cupping for preventative reasons. A total of 102 individuals (25.5%) received medical advice before to cupping, 67 (16.8%) had laboratory tests, 58 (14.5%) followed a diet and 230 (57.5%) did not undertake any of the aforementioned. Regarding the reason for being cupped, 189 people (47.3%) chose to get cupped on their own, 166 people (41%) got cupped on the recommendation of friends and family and 22 people (5.5%) were cupped on the advice of a doctor. Only 40 people (10%) who cupped suffered negative effects (Table 2).

**Table 2** Cupping practice and side effects among study participants, Al Ahsa, Saudi Arabia

Cupping practice	No	%
What is the purpose of your cupping?		
Preventive	137	34.3%
Therapeutic	263	65.8%
Did you do any of the following before cupping?		

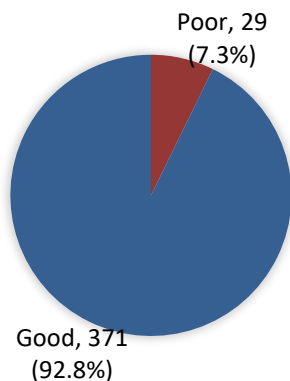
Medical consultation	102	25.5%
Dietary system	58	14.5%
Laboratory investigations	67	16.8%
None of the above	230	57.5%
Who advised you to cupping?		
Sunnah about prophet Mohamed	19	4.8%
Internet & social media	4	1.0%
Family member / friend	166	41.5%
Physician	22	5.5%
My self	189	47.3%
Were there any side effects after cupping?		
Yes	40	10.0%
No	360	90.0%

Knowledge and attitude of cupping among Al Ahsa, Saudi Arabia's populace exact 97% of participants agreed that cupping should only be performed by specialists and approved centers, 84.5% felt a positive effect on their general activities after cupping, 78% believe they had sufficient information about cupping, 74.8% believe cupping is beneficial for everyone regardless of their health condition and 73.5% believe cupping can be a useful method for treating chronic diseases such as HTN and diabetes (Table 3).

**Table 3** Knowledge and perception regarding cupping among population in Al Ahsa, Saudi Arabia

Knowledge items	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	No	%	No	%	No	%	No	%	No	%
I think I have enough information about cupping	107	26.8%	205	51.3%	72	18.0%	14	3.5%	2	.5%
I feel a good effect on my activities in general after cupping	142	35.5%	196	49.0%	52	13.0%	6	1.5%	4	1.0%
I believe that cupping can be a useful method of treating chronic diseases such as HTN and diabetes	117	29.3%	177	44.3%	89	22.3%	17	4.3%	0	0.0%
I think that cupping should be done by specialists and approved centers only	300	75.0%	88	22.0%	9	2.3%	3	.8%	0	0.0%
I believe that cupping is beneficial for everyone regardless of their health condition	184	46.0%	115	28.8%	58	14.5%	33	8.3%	10	2.5%

Overall knowledge and perception regarding cupping among population in Al Ahsa, Saudi Arabia a total of 371(92.8%) persons who undergone cupping had good knowledge regarding the procedure while only 29 (7.3%) had poor knowledge and perception level (Figure 1).



**Figure 1** Overall knowledge and perception regarding cupping among population in Al Ahsa, Saudi Arabia

Attitude and intention to use regarding cupping among population in Al Ahsa, Saudi Arabia a total of 371 (92.8%) of the study participants confirmed that they will advise others to cupping, 377 (94.3%) confirmed that they intend to do cupping in the future and 354 (88.5%) were totally satisfied with their cupping while 39 (9.8%) where to some extent satisfied (Table 4).

**Table 4** Attitude and intention to use regarding cupping among population in Al Ahsa, Saudi Arabia

Cupping attitude and intention	No	%
Do you advise others to cupping?		
Yes	371	92.8%
May be	27	6.8%
No	2	.5%
Do you intend to do cupping in the future?		
Yes	377	94.3%
May be	20	5.0%
No	3	.8%
In general, are you satisfied with your cupping?		
Yes	354	88.5%
To some extent	39	9.8%
No	7	1.8%

Distribution of participants knowledge level regarding cupping by their bio demographic data and satisfaction. Exact of 95.4% of participants who will advise others with cupping had good knowledge compared to 50% of those who will not with recorded statistical significance (P=.001). Also, 94.2% of intend to do cupping in the future had good knowledge and perception level in comparison to 66.7% of others who will not (P=.001). Additionally, 95.8% of those who totally satisfied with their cupping had good knowledge versus 71.4% of others who are not (P=.001) (Table 5).

**Table 5** Distribution of participants knowledge level regarding cupping by their bio-demographic data and satisfaction

Factors	Knowledge level				P-value
	Poor		Good		
	No	%	No	%	
Age in years					
< 20	2	22.2%	7	77.8%	.393\$
20-29	3	6.3%	45	93.8%	
30-39	10	9.0%	101	91.0%	
40-49	8	6.0%	126	94.0%	

50+	6	6.1%	92	93.9%	
Gender					.106
Male	17	9.6%	160	90.4%	
Female	12	5.4%	211	94.6%	
Marital status					.107\$
Single	8	12.1%	58	87.9%	
Married	18	5.8%	293	94.2%	
Divorced / widow	3	13.0%	20	87.0%	
Educational level					.221
Below secondary	1	2.2%	45	97.8%	
Secondary	7	5.9%	111	94.1%	
University	21	8.9%	215	91.1%	
What is the purpose of your cupping?					.664
Preventive	11	8.0%	126	92.0%	
Therapeutic	18	6.8%	245	93.2%	
Do you advise others to cupping?					.001*\$
Yes	17	4.6%	354	95.4%	
May be	11	40.7%	16	59.3%	
No	1	50.0%	1	50.0%	
Do you intend to do cupping in the future?					.001*\$
Yes	22	5.8%	355	94.2%	
May be	6	30.0%	14	70.0%	
No	1	33.3%	2	66.7%	
In general, are you satisfied with your cupping?					.001*\$
Yes	15	4.2%	339	95.8%	
To some extent	12	30.8%	27	69.2%	
No	2	28.6%	5	71.4%	

P: Pearson X2 test    \$: Exact probability test  
 \* P < 0.05 (significant)

#### 4. DISCUSSION

Cupping treatment is a complementary therapy performed by many cultures, primarily those of Asia and the Middle East (Aboushanab and AlSanad, 2018). Cupping treatment is becoming more popular in Western nations like Europe and the United States (Farhadi et al., 2009). It is specifically known as sucking, which removes toxins from the circulation by placing warm cups on various body areas. This sucking causes a local suction to improve blood flow and is said to control and heal a variety of ailments (Cao et al., 2010). As a consequence of the Islamic prosecutions and profound concern in cupping, particularly in Saudi Arabia, there has been increased interest in determining if the general populace and community in KSA are aware of cupping treatment and what their opinions and perceptions are.

The present research sought to analyze the knowledge, attitude and practice of persons who had cupping treatments at the QabasatAlkhair facility in the Al Ahsa area. The research findings revealed that cupping was more popular among the elderly (40 years or older), females with a high educational level, regardless of whether it was Falk treatment, which was predicted to be more popular among the less educated. In terms of public awareness and understanding, the research findings revealed that the majority of cupping treatment consumers was familiar of the technique. In more detail, almost all of the participants agreed that cupping should only be performed by specialists and approved centers; more than threequarters (84.5%) felt that cupping had an excellent effect on their general activities after cupping and also believe they had enough information about cupping. Furthermore, about three quarters of procedure users feel that cupping improves everyone, regardless of health status and that cupping may be a helpful means of treating chronic disorders such as HTN and diabetes.

Participants with better pleasure and attitude toward the technique had considerably higher knowledge and perception. (Al-Yousef et al., 2018; Furhad and Bkhari, 2022) reported a lower level of awareness and perception, with only 46.4% of respondents

aware of situations when cupping is prohibited and the majority of participants (89.7%) believe it is an effective treatment technique, with more than half (58.7%) believing it causes side effects. Albalawi et al., (2016) discovered that 49% and 96% of participants preferred cupping treatment to be administered in specialist facilities, respectively. Furthermore, 46.5% were aware that contaminated equipment might spread certain illnesses. Ghazi, (2016) discovered that over two-thirds of the participants (61.5%) learned about cupping treatment from the community, whereas only 11.8% and 11.3% learned about it through TV and physicians, respectively. The majority of participants (82.3% and 88.5%, respectively) were aware that cupping therapy is a method of illness prevention and treatment. Two-thirds of the participants (67.3%) reported personal Hijamah experience or Hijamah experience among friends or family (Ghazi, 2016).

In terms of participants' use of and attitudes regarding cupping treatment, the present research revealed that although 2/3 of study participants had done the therapeutic process, just 1 in 4 had sought medical advice before doing so. Only 5% of users sought the advice of a doctor before conducting cupping treatment, with friends and family playing the biggest role in encouraging them to do so. 10% of the people who had the procedure experienced side effects. This explains the high level of participant satisfaction, as almost everyone reported being completely or somewhat happy with their cupping treatment experience and intending to continue cupping in the future. Nearly 60% of the research participants, according to Al-Yousef et al., (2018) had received cupping treatment on the advice of their doctor. More than half of the respondents (54.8%) said that they had never brought up the use of cupping therapy with their physicians (Al-Yousef et al., 2018). The majority of participants (71.5%) expressed strong confidence in belief in cupping treatment.

According to Razzaq et al., (2013) research in Karachi, 48.7% of participants utilized alternative medicine and 23% chose it because it is safe and efficient. About 59.6% of respondents stated they believed cupping therapy was beneficial for their health; 59% said it had fewer adverse effects; and 57.8% said it was affordable (Razzaq et al., 2013). After conducting a comprehensive study, Kim et al., (2013) found that various side effects linked to cupping treatment were uncommon. The majority of unfavorable incidents might have been avoided if they had been handled by trained staff. Cupping should be performed in accordance with safety regulations by certified medical professionals (Kim et al., 2013).

## 5. CONCLUSION

Minorities exhibited inadequate understanding and impression of the technique compared to the majority of those who had undergone cupping. We still need to do more to inform people on the specifics of this technique, including its nature, medical indications, advantages, therapeutic and prophylactic effects, when and how to do it and any potential contraindications.

### Author contribution

Ali A Bu-Khamseen: Writing the proposal, review of the manuscript.

Alya A Bu Khamsin, Abdullah AAlnaim, Zahra E Alabbad, Hussain A Alturaifi, Fatimah A Alkhawajah, Wedad M Alabbad, Fatimah M Alhashem Alsayed, Mohammed A Alnajjad, Haidar Alabdrabulridha, Hassan K AlBohassan, Sadiq Bassam Busaleh, Mohammed AliAls Salman, Ryhana Mohammed Aljumaiah & Hussain S Alsultan: Data collection, data entry and analysis with review of the manuscript.

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### Informed consent

Written & Oral informed consent was obtained from all individual participants included in the study. Additional informed consent was obtained from all individual participants for whom identifying information is included in this manuscript.

### Ethical approval

The study was approved by the King Fahad Hospital-Hofuf, AlAhsa, Saudi Arabia (Ethical approval code 69- EP-2022).

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**Conflict of interest**

The authors declare that there is no conflict of interests.

**Data and materials availability**

All data sets collected during this study are available upon reasonable request from the corresponding author.

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