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Public Perceptions of Cupping Therapy (Hijama) and Whether It Will Be Chosen Over Donating Blood

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Authors' contributions

This work was carried out in collaboration among all authors. Authors AA, AA Albeladi, AKA, AA Alnakhli and RSAH designed the study, performed the statistical analysis and write the first draft of the manuscript. Author AA managed the analyses of the study and write the final manuscript. All authors read and approved the final manuscript.

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ABSTRACT

Background: Modern medicine, despite its great advances, still not as effective as cupping therapy in treating many medical conditions.
Objective: To assess the level of awareness and the general perceptions about cupping therapy (Hijama) in the Saudi population.
Methods: We conducted a cross-sectional study among 1120 adult subjects (473 males and 647 females), during the period from January to March 2020. Participants responded to an anonymous self-administered questionnaire requesting information about their knowledge, attitude, and perceptions of cupping therapy. The data collected from 1120 questionnaires were analyzed using appropriate statistical methods in two stages (descriptive analysis - analysis of the study hypotheses). The frequencies and percentages of the descriptive analysis and the primary data of the study sample were calculated and the responses of its members to the questions included in the questionnaire were determined. The study hypotheses were analyzed using the chi-squared

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test to study the independence of the variables under study. The analysis was done using (IBM SPSS Statistics 25.0) software.

Results: About 32% of the participants underwent cupping before and the majority of them performed wet cupping (82.2%) and felt light pain (55.6%). Almost 60% of all participants were afraid of cupping and this fear was mainly from the injury (37%). The percentage of those who prefer to donate their blood was 72% while only 28% choose to perform cupping. There were statistically significant relationships between the gender of the participants and cupping procedure ($p=0.003$), fear of performing it ($p<0.001$) and preference for cupping over donating blood ($p=0.002$). Similarly, there were statistically significant relationships ($p<0.001$) between the age of the participants and cupping procedure, fear of performing it and preference for cupping over donating blood.

Conclusion: This study showed the high knowledge, attitudes and perception of the Saudi population towards wet cupping therapy. Importantly, most of the surveyed population, especially younger ones, choose to donate their blood rather than performing wet cupping. Further research is needed to establish a collaboration platform between wet cupping clinics and blood banks to fill the gap of frequent shortage of blood units.

Keywords: Cupping therapy; knowledge; perception; blood donation; Saudi Arabia.

1. INTRODUCTION

Wet cupping, or Hijama, is the process of applying cups on different parts of the body to draw blood by making an incision [1]. It is considered one of the main types of alternative medicine around the world [2]. The practice of wet cupping was shown to be useful in the management of many health problems [3]. For instance, methodologies and practices of traditional cupping have been passed along the centuries by its practitioners [4,5]. Saudi Arabia, among many other countries in the Middle East, uses different wet cupping techniques from the one that is used in China, Korea and Germany [6]. Specifically, the Middle East technique utilizes three order of steps which are cupping, puncturing and then cupping again after making an incision with a sharp surgical blade. In contrast, other countries such as Korea, Germany, China use two steps procedure by using an auto-lancet for the puncturing. These two steps are puncturing and cupping [7,8].

Based on the National Institute of Health (NIH), cupping shows its effects in various symptoms such as headache, nausea, and vomiting [3,9]. Cupping is mainly suggested as a complementary therapy in some conditions. These conditions, for instance, include migraine, sports injuries and performance, neck and shoulder pain, muscle pain and soreness, back pain and/or knee pain [10]. It is well known that Hijama is safe when a professional person performs it, especially on healthy individuals [2]. However, it is not recommended for people with health problems due to its potential side effects such as bruising and bleeding. According to the National Center for Complementary and Integrative Health (NCCIH), numerous side effects may result from cupping including hematoma, persistent skin discoloration, scars, burns or bleeding [11]. Several contraindications prevent people from doing wet cupping which includes dry or cracked skin, hypotension, open wounds, high fever and pregnancy (for women). While few people believe that wet cupping can cause anemia, several reports showed that cupping is safe for anemic patients and does not cause anemia [12,13].

This study aimed to evaluate the insights and the level of awareness about wet cupping therapy in the Saudi population.

2. MATERIALS AND METHODS

This is a cross-sectional study was performed among 1120 adult subjects (473 males and 647 females), during the period from January to March 2020. The data collected were analyzed using appropriate statistical methods in two stages (descriptive analysis - analysis of the study hypotheses). The frequencies and percentages of the descriptive analysis and the primary data of the study sample were calculated and the responses of its members to the questions included in the questionnaire were determined. The study hypotheses were analyzed using chi-squared test to study the independence of the variables under study. We utilized the Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL), version 25 for data analysis. Chi-square test was utilized to test

for the association between categorical variables. A *P*-value less than 0.05 was considered statistically significant.

3. RESULTS

The study included 473 (42.2%) males and 647 females (57.8%). Majority of the participants (40.5%) were aged between 21 and 25 years. Surveyed participants were from Madinah city (45%) and outside Madinah city (55%) (Table 1).

As shown in Table 2, one-third of the participants (32.4%) underwent cupping before and majority of them performed wet cupping (82.2%) and felt light pain (55.6%). As expected, around two-third of the participants are afraid of cupping (59.8%) and this fear was mainly from the injury (37%). When we asked what symptoms could be treated with cupping, most of the respondents considered being lethargic (44.8%) as the most common symptom. Although half of the participants have no previous information about cupping (52.1%), the majority of them said they would recommend cupping to others (77.7%). More than half of the participants do not think that increasing the number of cupping cups leads to an increase in the effectiveness of cupping (59.6%) while half of them think that there are side effects of cupping. Interestingly, the majority of the participants would choose to perform blood donation (72.3%) if they have to choose between cupping and blood donation (Table 2).

Next, we analyzed the hypothesis of a relationship between the gender of the participants and cupping procedure, fear of performing it and preference for cupping over donating blood. As shown in Table 3, there is a statistically significant relationship between the gender of participants and performing cupping (p=0.003). In addition, there is a statistically significant between the gender of participants and fearing of performing cupping (p<0.001). Furthermore, there is a statistically significant relationship between the gender of participants and the preference between cupping and donating blood (p=0.002) (Table 3).

Finally, we analyzed the hypothesis of a relationship between the age of the participants and cupping procedure, fear of performing it and preference for cupping over donating blood. As shown in Table 4, there is a statistically significant relationship between the age of participants and performing cupping (p<0.001). Similarly, there is a statistically significant relationship between the age of participants and fearing of performing cupping (p<0.001). Also, there is a statistically significant relationship between the age of participants and the preference between cupping and donating blood (p<0.001) (Table 4).

4. DISCUSSION

Wet cupping therapy or Hijama is one of the most common traditional therapy in some cultures and it has been used in the treatment of a wide range of conditions such as headaches and general physical and mental well-being [14]. This study investigated the general knowledge and perception of wet cupping therapy among the Saudi population.

In this study, 48% of the participants were aware that cupping is a well-known form of alternative medicine and 78% of them would recommend cupping to others. This observation is in agreement with the relatively high attitude and practice observed by Kaleem and colleagues [3]. In this study, 32% of the participants have practiced wet cupping therapy.

Table 1. Gender and age distribution of the participants

		Recurrence	Percentage
Gender (n=1120)	Male	473	42.2
	Female	647	57.8
Age (n=1120)	18 - 20 years	261	23.3
	21 - 25 years	454	40.5
	26 - 30 years	124	11.1
	31 - 35 years	69	6.2
	36 - 40 years	65	5.8
	41 - 45 years	61	5.4
	46 - 50 years	48	4.3
	More than 50 years	38	3.4
Residential area (n=1120)	Outside the Madinah region	616	55
	Madinah region	504	45

Table 2. Attitude and practice of wet cupping among the participants

		Recurrence	Percentage
Have you performed cupping before? (n=1120)	Yes	363	32.4
	No	757	67.6
If your answer is yes, did you feel any pain during the cupping procedure? (n=363)	Yes/light pain	202	55.6
	Yes/moderate pain	53	14.6
	Yes/severe pain	9	2.5
	No	99	27.3
In case you did cupping previously, what are your favorite cupping sites? (n=588)	Back	250	42.5
	Shoulders	191	32.5
	Head	117	19.9
	Feet's	21	3.6
	Abdomen	7	1.2
	others	2	0.3
If you had previous experience with cupping, which of the types would you do? (n=395)	Dry cupping	20	5.6
	Wet cupping	295	82.2
	Massage cupping	37	10.3
	All of the above	7	1.9
Do you have a fear of cupping? (n=1120)	Yes	670	59.8
	No	450	40.2
If your answer is yes, what is the cause of fear? (n=108)	Fear from blood	14	13.0
	Fear from infection	22	20.4
	Fear from injury	40	37.0
	Other	32	29.6
Do you think the effectiveness of cupping lies in its effect on any of the following symptoms? (n=1702)	Headache	537	31.6
	Lethargy	762	44.8
	Back pain	390	22.9
	Others	13	0.8
Do you recommend cupping to others? (n=1120)	Yes	870	77.7
	No	250	22.3
Do you have previous information about cupping? (n=1120)	Yes	536	47.9
	No	584	52.1
Do you think increasing the number of cupping cups leads to an increase in the effectiveness of cupping? (n=1018)	Yes	411	40.4
	No	607	59.6
Do you think there are side effects of cupping? (n=1059)	Yes	525	49.6
	No	534	50.4
If you choose between cupping and blood donation, what will be your option**?** (n=1119**)**	Cupping	310	27.7
	Blood donation	809	72.3

Table 3. Attitude and practice of cupping in relation to gender distribution among the participants

		Gender		*P*-value
		Female	Male	
Have you performed cupping?	Yes	187	176	0.003
	No	460	297	
Do you have a fear of performing cupping**?**	Yes	447	223	<0.001
	No	200	250	
If you choose between cupping and blood donation, what will be your option?	Cupping	156	154	0.002
	Blood donation	491	318	

Table 4. Attitude and practice of cupping in relation to age distribution among the participants

		Age								p-value
		18-20	21-25	26-30	31-35	36-40	41-45	46-50	> 50	
Have you performed cupping?	Yes	30	107	59	33	40	40	28	26	<0.001
	No	231	347	65	36	25	21	20	12	
Do you have a fear of performing cupping?	Yes	191	291	60	30	32	27	25	14	<0.001
	No	70	163	64	39	33	34	23	24	
If you choose between cupping and blood donation, what will be your option?	cupping	43	93	32	28	35	34	25	20	<0.001
	Blood donation	218	361	92	41	29	27	23	18	

In this study, the gender of the participants was significantly associated with aspects of cupping procedure, fear of performing it and preference for cupping over donating blood. Similarly, the age of the participants was significantly associated with aspects of cupping procedure, fear of performing it and preference for cupping over donating blood. For instance, other studies have reported no significant correlation between age and wet cupping practice [15,16]. In another study, the rate of cupping therapy was higher among younger individuals [17]. The greater tendency of older participants to use Hijamah as complementary medicine therapy may be attributed to their experience of not finding usefulness in modern medicine.

One of the most interesting observations in this study is that majority of young participants (less than 30 years old) would choose to donate their blood instead of performing wet cupping (671 out of 839, 80%). This important observation is needed to be shared with blood banks around the world as it could solve one major problem that continuously facing them which is the shortage of blood donors. This issue (encouraging non-donors to be more willing to donate blood) was previously highlighted and studied extensively [18-20]. However, to the best of our knowledge, our study is the first to look at this issue from this point of view. We, therefore, strongly believe that a collaboration between wet cupping clinics and blood banks will be an ideal solution for this frequent shortage of blood donations.

5. CONCLUSION

In conclusion, this study showed the high knowledge, attitudes and perception of Saudi population towards wet cupping therapy. Importantly, most of the surveyed population, especially younger ones, choose to donate their blood rather than performing wet cupping. Further research is needed to establish a collaboration platform between wet cupping clinics and blood banks to fill the gap of frequent shortage of blood units.

CONSENT AND ETHICAL APPROVAL

All aspects of the study were approved by the local ethics committee as well as written consent was obtained from every participant to voluntary participates in the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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