

Public perceptions of cupping therapy (Hijama) and whether it will be chosen over donating blood

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 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.

KEY WORDS: Cupping therapy, knowledge, perception, Blood donation, Saudi Arabia.

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.

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. 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. 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.

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**).

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 | |

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.

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.

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.

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