JTCM 中医杂志 Journal of Traditional Chinese Medicine

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J Tradit Chin Med 2017 August 15; 37(4): 558-562
ISSN 0255-2922
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RESEARCH ARTICLE

Cupping therapy can improve the quality of life of healthy people in Tehran

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Accepted: June 6, 2016

Abstract

OBJECTIVE: To examine the influence of cupping on the quality of life of healthy people who referred to traditional Persian medicine clinics in Tehran.

METHODS: All participants were examined by Traditional Persian Medicine specialists and their temperaments were determined. The area between the shoulders was cleaned, and cupping was performed with a disposable cupping glass for a few minutes. The questionnaire used in this project was the Persian version of the SF-36 questionnaire which assesses people's understanding of their health status. Before cupping and then one month after cupping, all participants were called and the questionnaires were completed again. Finally, all given data was analyzed.

RESULTS: From a total of 290 questionnaires completed in the first phase of the project, 112 patients were excluded. Ultimately, the data of 178 participants was analyzed. After one month, the quality of life score of 155 participants (88%) increased, remained unchanged for 21 participants (11.7%), and decreased for 2 participants (1.1%). Asked about possible complications from cupping, 160 participants reported no side effects (89.9%).

CONCLUSION: Our findings suggest that cupping therapy can improve the scores of quality of life in the participants in Tehran.

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Keywords: Persian medicine; Hijama; Cupping therapy; Quality of life

INTRODUCTION

Despite the many advances in medical sciences and the dissemination of modern medicine in recent centuries, many people around the world prefer alternative treatments such as herbal therapy, dietary supplements, acupuncture, cupping therapy, etc. The use of these methods is increasing all over the world.[1]

Cupping therapy is one of the world's oldest known treatment methods in many countries and civilizations, especially in Asia and Europe.[2] It is frequently mentioned in historical Traditional Persian Medicine (TPM) documents for the prevention and treatment of various diseases.[3] It is also a common traditional method currently used in Iran.

Many studies in recent years have tried to clarify the efficacy of cupping therapy in various disorders.[4] Some of them have reported the beneficial effects of cupping in clinical investigations. The most reported positive effect of cupping therapy is pain relief.[5,6] Its effects on acne,[7] constipation,[8] coughing and asthma,[9] migraine,[10] herpetic lesions,[11] eczema,[12] etc. have also been examined. In contrast, some investigations have shown that cupping therapy has no significant effect on complications like serum hs-CRP and Hsp27 patients with metabolic syndrome.[13] Although much evidence shows the probable effect of cupping therapy in medical aims, there are too many concerns for it to be applied in society.[14] The most common concern for wet cupping is the transmission of infection because of unclean conditions during the procedure.[15] Unfortunately, traditional cupping therapy was mostly applied by traditional healers who had no academic medical awareness. Sometimes it was done under unclean conditions and with unsterile tools. Cupping is an important risk factor for the transmission of blood-borne infectious diseases, like HTLV-I infection and Hepatitis B and C, in Iran.[16,17] Furthermore, there are many reports of burns induced by dry cupping in countries such as China.[18]

Quality of life is a comprehensive concept based on the perception of the dimensions of physical health, personal development, psychological state, level of independence, social relationships, and communication with the environment. In fact, quality of life includes subjective and objective dimensions that interact with each other.[19] Dysfunction of the body and physical signs and symptoms significantly impact all aspects of quality of life, and they impair physical function, social roles and function, which leads to psychological complications and reduced energy.[20]

Historically, Persian traditional scholars have divided persons into three groups: healthy persons, patients, and people who have no obvious disease, but some of the four aspects (physicality, psychology, sociality, and spirituality) are not healthy. Risk of disease is higher for people in the third category than in the first. For example, symptoms such as malaise are not caused by anemia or other chronic diseases or drowsiness without a particular reason, etc. TPM scientists like Avicenna advised blood-letting for this category to prevent more serious diseases.[21] Traditional Persian scholars believed that cold weather in winter causes the disposition of humors in the body, while the spring warming melts them. As a result, certain diseases, such as allergies and hives, become more common.[21,22] To prevent such diseases, blood-letting methods have been advised for the disposal of waste humors. For this reason, phlebotomy (Fasd) and cupping are recommended more in spring than in other times of the year. Phlebotomy is a TPM blood-letting method in which a small incision is made in one of the superficial veins of the body and blood is taken. People prefer cupping to phlebotomy, because it is easier, and causes less pain. Many cupping processes are carried out annually to prevent or treat disease.

In recent years, several studies have investigated the effects of cupping therapy alone and in combination with other traditional and modern methods. However, there are not enough studies on the effectiveness of cupping on the quality of life of patients or healthy controls. The current study aimed to examine its effect on the quality of life of healthy people in Tehran.

MATERIALS AND METHODS

This trial is a quasi-experimental before-after study of healthy people coming to TPM clinic on 6/19/2014 and 6/20/2014 for preventive cupping. All participants were examined by TPM specialists and their temperaments were determined. Participants included in the study were 12-60 years of age with no known disease, who were not taking immunosuppressive drugs, chemotherapy, anticoagulants, codeine, or phenytoin, and women who were not menstruating, pregnant or breast-feeding. People with acute illnesses or infections and those who did not answer more than 20% of the questionnaire were excluded from the study. Before the intervention, an oral explanation was given about the study to eligible persons, informed consent was obtained, and the questionnaire was given to each of them. Forms were completed under the supervision of the project executer and colleagues. Participants were also informed that they would be called one month after cupping and asked about changes in their quality of life. Then they were led to the cupping room. The area between the shoulders was cleaned, and cupping was performed with a disposable cupping glass for a few minutes with the help of 10 TPM specialists. The suction of the glass was gradually increased. After the skin under the glass expanded and became red, some scratches on the skin's surface were made with a scalpel, and blood-letting was carried out in three 5-minute periods. At the end, the area was dressed with honey. After a few minutes of rest, participants were allowed to leave the cupping room. They were advised to avoid bathing and swimming for 12 h after cupping.

The questionnaire used in this project was the Persian version of the SF-36 questionnaire which assesses people's understanding of their health status. The Persian version was translated by Montazeri *et al* and approved by Noroozi *et al* [19] Its validity was determined to be between 58/0 and 95/0, while reliability was between 77/0 and 9/0.[23] Questions covered two main areas of physical and mental health, and the eight aspects of general health, physical functioning, physical problems, mental health, vitality, mental health problems, social function, and physical pain were evaluated. All questions were scaled with the Likert scale of 1-5, in which number 1 was the lowest score and number 5 was the most ideal situation. Demographic data on participant age, gender, education level, and temperament was also collected. The calculated sample size was 97 based on the Cochran formula with 5% error. Because follow-up

Table 1 Changes in 8 compasses of quality of life

Compass	*P* value	Before		After	
		Mean	SE	Mean	SE
General health	< 0.0001	7.07	0.10	8.14	0.12
Physical functioning	0.0004	38.24	0.64	42.20	0.46
Role Limitation due to physical health	< 0.0001	15.68	0.30	18.16	0.22
Mental Health	0.013	17.17	0.34	18.41	0.35
Vitality	0.033	14.06	0.26	14.09	0.28
Role Limitation due to emotional problems	< 0.0001	11.75	0.23	13.62	0.16
Social functioning	< 0.0001	4.10	0.07	4/88	0.02
Bodily pain	< 0.0001	8.07	0.15	9.47	0.12
Physical component score	< 0.0001	17.29	0.23	19.56	0.15
Mental component score	< 0.0001	16.05	0.19	17.64	0.16
Total	< 0.0001	111.00	1.36	131.10	0.86

Note: SE: standard error.

was to be by phone and contact with some of the participants was not possible, a reduction in the response rate and the elimination of some participants were probable; thus, the number of samples taken was three times more than the calculated sample size. One month after cupping, all participants were called and the questionnaires were completed again. In addition, the participants were asked about complications and possible problems after cupping. The data was inserted in 2007 Microsoft Excel files and then analyzed by the GraphPad Instat 3 software (GraphPad Software, Inc, La Zolla, CA, USA). A *P*-value of less than or equal to 0.05 was considered as effective.

RESULTS

From a total of 290 questionnaires completed in the first phase of the project, 29 were excluded due to lack of complete responses to questions, 4 because participants were over the age of 60 years, and 79 due to unsuccessful follow-up contact attempts. Ultimately, the data of 178 participants was analyzed.

The mean age of the patients was 36.6 ± 0.8; 115 participants were female (64.6%) and 63 were male (35.4%). Eighty of the participants had a college education (44.9%), 57 had a diploma (32%), and 29 had high school diploma (16.3%); 12 participants did not record their education level (6.8%). Distribution of temperaments among participants was as follows: 37 hot and wet (20%), 53 hot and dry (29.7%), 52 cold and wet (29.2%), and 40 cold and dry (22.4%). After one month, the quality of life score increased in 155 participants (88%) and remained unchanged in 21 (11.7%); the score decreased in 2 participants (1.1%), one of whom had a hot and dry temperament and the other a cold and wet temperament. However, the quality of life of participants in all items was significantly improved after cupping (Table 1). All 8 items of the questionnaire were also studied in separate temperamental groups. Cupping was effective in all items in 4 temperamental groups, except mental health and vitality. Mental health was only effective in the hot and wet group and had no significant impact on the other 3 groups; no group had a significant difference in vitality.

By comparing the improvement of the average scores of quality of life in all 4 groups, the highest increase was in the hot and wet group, while the cold and dry and hot and dry groups were rated lower; the cold and wet group had the lowest increase. A significant difference was found between the hot and wet and cold and wet groups (Table 2).

Table 2 Changes occurred in 4 temperamental groups

Temperament	Mean	SE
Hot and wet	18.02	2.18
Hot and dry	13.69	1.66
Cold and wet	12.38	1.73
Cold and dry	13.22	1.73

Note: SE: standard error.

Totally 160 participants reported no side effects (89.9%), 7 reported itching in the cupping area for 2 days (4%), 6 complained of irritation and pain in the cupping area for 2-3 days (3.3%), 2 expressed weakness and asthenia, one for 10 minutes and the other for half an hour after cupping (1.1%), one participant complained of dizziness (0.5%), 1 complained of headache (0.5%), and 1 expressed drowsiness (0.5%) after cupping. Table 3 shows the rates of complications of each temperament group.

DISCUSSION

Results of the current study showed that cupping in people without certain diseases caused well-being and increased their quality of life in all areas of physical and mental health. Surveys showed that cupping in all 4 groups of hot and wet, hot and dry, cold and wet, and cold and dry temperaments had generally positive effects and improved the quality of life. The level of improvement was highest in the hot and wet group and lowest in the cold and wet group. This result is consistent with the concepts of TPM, the scholars of which believed that people with a hot and wet temperament have more blood than people with other temperaments, and preventive cupping in hot-and-wet-tempered people keeps them from acquiring diseases of blood dominance[21] and gives them a better sense of well-being. This is frequently seen by experienced people in clinical practices, and this study has also confirmed it. According to TPM theories, cold-and-wet-tempered people have the lowest amount of good blood. Therefore, the resources of TPM usually recommended that these people use temperament modulators before cupping. Sayed Ismail Jorjani (1042-1137 AD) believed that these individuals should exercise before cupping to increase their body temperature and melt the extra moisture of their body.[24] Of course, such recommendations were not made in this study, because the aim of the study was to evaluate the effect of cupping alone. Therefore, it is recommended that the effect of cupping in conjunction with these measures in cold and wet tempered people be investigated in the future. Some TPM experts also believe that changes in living conditions and eating and drinking customs cause most people to have waste humors in their body and to need preventive cupping at least once a year. This was confirmed in this study.[14,25]

As shown in Table 1, cupping improves physical and psychological health; that result is consistent with other studies.[26] In the current study, 88% of participants were better after cupping and 1.1% complained of a deterioration in health.

According to the findings of Lauche *et al*,[26] both wet and dry cupping increased mental health scores, but this increase was not statistically significant. Another study about the effect of dry cupping on knee osteoarthritis suggested that dry cupping in weeks 4 and 12 improved the patient's physical condition, but it had no significant difference in terms of mental items.[2] In the current study, the difference in mental health was statistically significant only in participants with a hot and wet temperament. Lauche *et al* [26] believed that the context, including the patient, disease, medical treatment, and treatment environment, is very pivotal in the efficacy of treatment, and this makes a difference in the assessment of the impact of cupping. In the current study, healthy individuals were selected to eliminate the two factors of disease and treatment. Moreover, all samples were selected on two consecutive days from one location to prevent any interference of place and time. Participants were separated into temperamental groups to study individual differences. Perhaps the differences between the current study and others in the significance of mental health items are because participants with a hot and wet temperament in the current study were separated and analyzed individually. As other studies and reports have not classified people on the basis of temperamental groups, this factor requires further study.

In the current study, 90% of participants reported no side effects and 10% had no significant complications, which result is consistent with those of Lauche *et al* [27,28] The most important complications of our study were pain and itching and irritation in the cupping area that improved after 2-3 days. There was no report of hematoma in the current study, while in that of Michalsen *et al*,[29] hematomas were observed after cupping. TPM resources mention that to prevent the creation of hematomas, an initial suction before the blading should be done gradually in 3 steps. Also, dressing with honey after cupping can be effective in early wound healing.[30]

In conclusion, the results of the current study suggest that cupping therapy can improve the scores of quality of life in healthy people in Tehran.

Table 3 Frequency of complications after cupping

Complication	Number	Relative frequency	Temperamental group
Without complication	160	89.9	
Itching of cupping area	7	4	3 hot and wet 3 hot and dry 1 cold and wet
Irritation and pain of cupping area	6	3.3	1 hot and wet 2 hot and dry 2 cold and wet 1 cold and dry
Weakness and asthenia	2	1.1	Cold and wet
Dizziness	1	0.5	Cold and dry
Headache	1	0.5	Cold and dry
Drowsiness	1	0.5	Cold and wet

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