Review

History of cupping (Hijama): a narrative review of literature

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ABSTRACT

Cupping (Hijama in Arabic) is an ancient, holistic method for the treatment of a variety of diseases. Though the exact origin of cupping therapy is a matter of controversy, its use has been documented in early Egyptian and Chinese medical practices. Diverse human civilizations have contributed to the historical development and continuation of cupping therapy. This narrative review describes the history of cupping, historical definitions, cupping instruments and uses of cupping therapy. Electronic searches of relevant databases (PubMed, Google Scholar and OvidSP) were conducted using keywords and Boolean operators. Manual searches and references of published articles and books were also conducted. A number of articles (N = 625) were retained for extensive review, and finally 83 articles were included in this paper. The historical descriptions of cupping therapy were found in ancient human civilizations of the Eastern and Western world. There were inconsistent data concerning the origin of cupping, definitions, instruments, procedures, definite advancements and research in Hijama over centuries. Cupping therapy fell out of favor in 17th and mid-18th centuries but recovered popularity in modern medicine. Currently, cupping therapy is used for health promotion, prophylaxis and treatment of a variety of diseases around the world. Cupping therapy with a good safety profile has a checkered history and is a well-recognized traditional method for managing medical conditions. Currently, the scope of cupping therapy is expanding, and a growing body of research is providing additional evidence-based data for the further advancement of cupping therapy in the treatment of a variety of diseases.

Keywords: cupping; history; review

2 Methods

2.1 Search strategy
The relevant literature published in English (prior to December 2016) was searched in PubMed, Google Scholar and OvidSP databases. The Boolean operators and keywords used in multiple electronic searches were “history AND wet and dry cupping,” “history AND Hijama,” “history AND cupping instruments,” “cupping definitions OR cupping in ancient cultures” and “different cupping methods AND cupping safety.” The search strategy and the keywords were modified as appropriate according to the searched database. In addition, references included in full text articles, some history of traditional medicine books and treatises on history of CT/Hijama were reviewed for inclusion.

2.2 Search results
More than 625 articles were retrieved and reviewed by two independent researchers. Our focus was on full articles describing cupping history. However, we also reviewed articles that gave brief descriptions of the history of cupping. These brief sketches were reviewed critically and their important contents were incorporated in this paper. The additional inclusion criteria were access to full articles, papers containing CT history information and all types of studies such as systematic reviews and meta-analysis, randomized clinical trials, observational studies, case series and single reports. After removal of duplications \(n = 241\), no cupping history at all \(n = 164\), no abstract \(n = 33\), non-English articles \(n = 17\), incomplete papers \(n = 37\) and full articles not accessible \(n = 21\), only 112 papers were left for further review. Furthermore, 42 articles were excluded because of duplications of cupping history information and containing irrelevant information. Finally, both reviewers agreed to include 70 published studies, including 12 historical traditional books on cupping, in the present narrative review. Thirteen further references suggested by reviewers were added to this paper. Now the total number of included studies is 83 (Figure 1).

3 History of CT

3.1 Historical definitions of cupping
Hijama, or cupping, has been defined differently in traditional and complementary medicine practice from various civilizations; however, a common element among its uses is the extraction of toxic substances...
(detoxification) from the body by creating negative pressure in the cup. Taber’s Cyclopedia Medical Dictionary reveals that the application of a glass vessel to the skin, from which air can be exhausted by heat or by a special suction apparatus, is known as cupping. In the English language, Hijama is called cupping. Several scholars of Unani medicine have defined cupping in their own words. Razi stated that cupping was a process in which blood (toxic) from superficial small vessels located in muscles is released. Sheikho described the process of making an incision, known as Pachhna (prick or puncture), in CT. Accordingly, the noxious matter accumulated close to the skin was effectively removed. Jurjani clarified that cupping was a process by which superficial bleeding was initiated from the smaller vessels or puncture), in CT. Accordingly, the noxious matter moved downward. CT further attracted these healing remedies including CT to patients. Sir Arthur Keith (1866–1955 B.C.) mentioned that CT was capable of treating diseases and health disorders. Interestingly, women practitioners have played a special role in perpetuating the use of traditional therapies, including CT, since ancient times. As a family tradition, women practitioners not only successfully practiced CT for healing purposes but also passed their skills and knowledge from generation to generation. Some studies found that women played a major role as folk healers in most cultures of the world. Evidently, CT was usually performed by women throughout Europe, Africa, Asia, Middle East and other continents. Unfortunately, by the 13th century, all universities excluded women from their classes. Despite a lack of importance given to folk medicine education during this period, women continued to provide various healing remedies including CT to patients. Archived documents and books recovered from ancient cultures especially in Egyptian, Chinese, Greek and Middle East are the main sources of information of the early history of cupping. Similar ancient civilizations were also the sources of a variety of instruments and tools used in CT practice, such as hollowed animal horns (Figure 2A), bones, bamboo (Figure 2B), nuts, seashells and gourds. These devices were used for suctioning harmful humors from ill people. Historically, the most common diseases managed by CT have been pains, bites, pustules, headache, infections and skin lesions. Many cupping instruments and tools, including animal horns and metal cups, used in early practices were slowly replaced by cups of different sizes, shapes and materials, such as glass, plastic, rubber and
silicone.\cite{1,23} Similarly, electric suction machines are new innovations that may replace manual suction instruments and fire as a method of decreasing the pressure inside of CT cups. Furthermore, instruments used for scarification, or bloodletting, such as traditional razors, have also been replaced by sterile surgical blades, plum blossom needles and the auto lancet.

3.3 Ancient Egyptians and CT

CT is an ancient medical art practiced and sustained by various human civilizations. According to Hasan et al.,\cite{7} CT was practiced in Egypt more than 5,500 years ago, and was symbolized in ancient hieroglyphics. Interestingly, ancient Egyptians were reported to practice CT earlier than all other civilizations.\cite{17,25} CT is considered to be one of the oldest medical therapies in ancient Egypt. Drawing found on famous Egyptian papyrus and in ancient Egyptian temples demonstrated that Egyptians were highly advanced in the treatment of various diseases through several treatment methods. Drawings of cupping instruments were found at the Temple of KomOmbo, Luxor.\cite{25} The Ebers Papyrus, an ancient medical textbook (1550 B.C.), discussed the application of cups for fever, pain, vertigo, dysmenorrhea, lack of appetite and constipation. This book also highlighted how to accelerate the “healing crisis” of diseases using CT.\cite{25} The ancient Egyptians introduced CT to the Greeks and subsequently CT spread to other European countries and eventually to the Americans.

3.4 Chinese culture and CT

Traditional Chinese medical practice, which has a history of several thousands of years, includes its own form of CT.\cite{26} The earliest discovered record of cupping in China was in the Wu Shi Er Bing Fang, an ancient book written on silk. This book was discovered in an ancient tomb of the Han Dynasty in 1973.\cite{27} Early written records in China (28 A.D.) strongly support the use of CT and acupuncture. It stated that “more than half of the illnesses will be cured by acupuncture and cupping.”\cite{27,31,32}

Zhao Xue-min, a Chinese doctor in the Qing Dynasty wrote a book entitled Bencao Gangmu Shi Yi (Supplements to Compendium of Materia Medica) about 200 years ago, describing details of the history and origin of different kinds of cupping, cup shapes, their functions and clinical uses in the treatment of diseases.\cite{31,32} Cupping has also been known as “Jiao Fa” which means the horn technique.\cite{13,28} In this method, hollowed horns were used in CT practice (Figure 2A). Many other names were used to describe cupping techniques, including “sucking method,” “fire cupping” and “boiling bamboo cylinder” in early Chinese practice.\cite{30} In fact, Chinese practitioners have continuously contributed to the advancement of CT methods and their efficacy against various diseases through research.\cite{31,32}

3.5 Arabic medicine and CT

The practice of CT in Arabic medicine began around 3500 B.C. and Assyrians were the first recorded Arab practitioners. In the Arabic medical context, CT is a technique that returns an ill state to its original state.\cite{10} CT was used in the treatment of hypertension, polycythemia, headache and migraine and drug intoxication among Arabian communities.\cite{17,22,36,37} Interestingly, Arabic practitioners diagnosed polycythemia based on excessive pink color of the skin.\cite{36} Venesection, a form of phlebotomy used in the treatment of polycythemia, differs from cupping. In this process, some blood is drawn out from veins and is replaced by saline infusion.\cite{37}

3.6 Unani medicine and CT

Unani (means “Greek” in Arabic) medicine is an Islamic healing philosophy. It mainly focuses on four major elements of ancient Greek medicine, which include earth, fire, water, air and four corresponding humors including phlegm (balgham), blood (dam), yellow bile (safran) and black bile (sauda). A balance in the humors in the body indicates good health while a disturbance in their equilibrium results in disease.\cite{14,15} According to Unani medicine, Hijama is an Arabic word which has two different meanings. Hijama refers to the process of scalp hair removal (Hijamat) or the application of cups (Seenghi).\cite{13,28} Hijama has been practiced since ancient times, and the Unani physicians were the first to use CT in a systematic way.\cite{13,28} More than 70% of the Indian population lives in villages,\cite{6} and traditional medicine has historically been widely used in rural areas of India. Nonetheless, no records of CT were found there. Hippocrates (the father of modern medicine) described both dry and wet cupping in his treatise Guide to Clinical Treatment which has been widely employed for the cure of a variety of medical conditions.\cite{28} Galen, a prominent Greek physician, surgeon and philosopher in the Roman Empire was a known practitioner of CT.\cite{13,27,28} CT was also used in ancient Greece by Hippocratic medical practitioners.\cite{38,39} Herodotus, a Greek historian, wrote that Egyptian physicians used both wet cupping and dry cupping for a variety of diseases, including inflammatory diseases, in 400 B.C.\cite{20,27,34,40,41} Bayfield\cite{42} wrote in 1839
about Hippocrates, who advised practitioners to use cups of small diameter, spherical shape and light weight.\[^{[43]}\]

### 3.7 Prophetic medicine and CT

Prophetic medicine is a term given to the knowledge gained from teachings, advice and sayings (hadiths) of the prophet Muhammad (570 C.E.), related to health and the treatment of diseases.\[^{[46]}\] Prophetic medicine has both preventive and curative values, and addresses the problems of body and soul. Loukas et al.\[^{[45]}\] stated that information gathered from the Qur’an (the holy book of Islam) and hadiths may be a significant source of home remedies due to their surprising concordance with modern therapies.\[^{[45,46]}\] The Prophet Muhammad recommended many forms of therapies, including CT and honey. He also recommended cautery as a last choice of treatment.\[^{[45,46]}\] Prophetic medicine also recommended a variety of herbs and foods, such as *Nigella sativa* and dates,\[^{[47]}\] as well as applied therapy, such as hydrotherapy.\[^{[48]}\]

Many Arabic companions of the Prophet have reported his hadiths concerning CTs. In *Sahih Bukhari*, the messenger said, "indeed the best of remedies you have is cupping."\[^{[29,44,46]}\] The messenger said: “healing is to be found in three things including use of honey, cupping and cautery.”\[^{[44–46]}\] Ibn al-Qayyim Jawzi believed that cupping was considered as an effective medical practice.\[^{[29,30,49,56]}\] The author of the book entitled *Al-Qanoon*, Sina\[^{[51]}\] (980–1037 B.C.) said: “Cupping is neither preferred in the beginning nor the end of the month. It is preferred in the middle of the month when the toxic substances accumulate.” Furthermore, Ibn Sina said that CT can treat more than 30 different diseases. A different hadith states that “the Prophet used to have cupping done on the 17th, 19th and 21st day of the lunar month.” For other important hadiths of the Prophet concerning Hijama see this source.\[^{[52]}\] Overall, Islamic cupping practitioners (Islamic medicine) have played a significant role in reviving and sustaining CT across the Islamic countries.

### 3.8 European and American culture and CT

CT spread from ancient Egypt to the medical practices of many European countries and the Americans. In the UK, the practice of CT also dates back hundreds of years. One of the leading medical journals *The Lancet* is named after CT practice. A lancet is a piece of surgical equipment that was traditionally used to release excess blood through venesection and to prick boils.\[^{[4]}\] European and American physicians were widely using CT during the 19th century (1800s–1900s). Wet cupping was the most used CT modality. In the early 20th century, the use of CT significantly declined across the world. Revival of CT began in the mid-20th century. In the 1950s, collaboration between Chinese and Russian researchers confirmed the clinical applications of CT in Chinese hospitals\[^{[7,28]}\] and by extension to other healthcare settings in both countries and possibly elsewhere in the world.

### 3.9 Historical and modern cupping instruments

The earliest cupping instruments were hollowed animal horns with a small hole at the top through which the therapist would suck out the air.\[^{[24]}\] Subsequently, various natural objects began to be used for cupping practice. For example, natives along the west coast of North America, in the vicinity of Vancouver Island, used shells. In Europe, Asia, Africa and North America, animal horns were fashioned into an effective cupping devices.\[^{[26]}\] In North America, the natives made cupping instruments by slicing off the apex of a buffalo horn to making a hole.\[^{[27,31]}\] The base of the horn was then placed on a specific skin area and the air was sucked out by mouth. After creating a vacuum, the opening of the horn was closed off with a piece of wax. In the Babylon-Assyrian Empire, CT was also conducted with a buffalo horn. This information was found inscribed on clay tablets, which may have dated back to nearly 700 B.C.\[^{[29]}\] Cupping and bleeding instruments, such as various scalpels and cupping vessels, were found at the Temple of Asclepius at Athens.\[^{[30]}\] The use of horns slowly gave way to bamboo glass and plastic cups.\[^{[19,24,26,31]}\]

Since the 17th century, different types of cups have been used in CT around the world.\[^{[53]}\] Medical equipment manufacturers produce cupping sets from the middle part of the 20th century. CT instruments and tools have been further developed to include new glass cups, magnetic cups, manual pumps and electrical suction devices. Now, new cupping devices continue to be developed. Notably, manual vacuum pumps perform the same function that the traditional fire suction method did. The connecting tube and valve allow the therapist to create and release suction with precise control of pressure and ease of movement.\[^{[28–30]}\] Overall, this trend reflects continuing innovative progress in CT procedures, cupping types, instruments and classification.\[^{[5,17,21]}\]

### 3.10 Historical uses of cupping

CT has been used therapeutically around the world for thousands of years, dating back to the era of the ancient Egyptian civilization. CT can be divided into dry cupping and wet cupping. Dry CT used to be practiced more commonly in the Far East, while wet CT was preferred in the Middle East and Eastern Europe.\[^{[54,55]}\] CT has been used historically to treat many acute and chronic diseases, including several painful conditions, nausea and vomiting, urinary tract infections, disabilities, respiratory ailments and rheumatic disorders.\[^{[13,22,23,33,39,54,56]}\] Initially, CT was used primarily for the treatment of diseases associated with aches and pains; however, the clinical experience over the past few centuries has applied these techniques to the treatment of many chronic conditions, such as musculoskeletal diseases, cardiovascular disorders, skin
diseases, inflammatory disorders, neuropsychiatry problems and metabolic disorders.\[18,54\] According to some research, wet cupping may be used effectively in the treatment of a variety of diseases, such as hypertension and carpal tunnel syndrome.\[7,28,50\] A number of historical books mentioned the use of wet and dry CT.\[21,28,76–79\] Herodotus (a Greek historian, 400 B.C.) reported the use of CT for the treatment of headaches, lack of appetite, indigestion, fainting, abscess evacuation and narcolepsy.\[4,20,22\] In the early 2nd century, Aretaeus used both wet and dry cupping to treat prolapse of uterus, cholera and epilepsy. Galen was a great Greek physician who used cupping methods and described various types of cups such as horn, glass and brass cups.\[27,17,58\] Scholar Celsus (a Greek philosopher and encyclopedist best known for his medical writings) recommended cupping for the treatment of abscesses and for extracting poisons from bites made by men, apes, dogs, wild animals and snakes.\[27\] Interestingly, Hippocrates recommended CT for the management of musculoskeletal diseases of the back and extremities, gynecological complaints, pharyngitis, ear ailments, angina and lung diseases.\[11,4,33,38,41\] Similarly, traditional ancient Egyptians, Chinese and Middle-Eastern physicians used CT for a variety of ailments. In Europe, CT was used for healing purposes by monastic practitioners and folk healers up to the 19th century.\[38,59–63\] 3.11 Revival of cupping

CT was ignored for a long period from the mid-18th until its revival in the mid-20th century.\[67\] The Prophet Muhammad himself was treated with cupping and recommended it.\[58\] In the 17th and mid-18th centuries, cupping was used extensively across the world including China, Egypt, Greece, the Middle East and Europe. By the mid to late 1800s, the medical community strongly criticized CT and, hence, CT lost its popularity.\[22,32,64\] Consequently, the medical community of the Western world lost interests in CT.\[32,58\] Nevertheless, CT was globally revived after mid-20th century.

Cupping has regained popularity over the past six decades, as people have realized that some traditional practices have therapeutic values in some medical conditions.\[12,51,64\] CT’s revival can be attributed to its promotion by acupuncturists, cupping therapists, and holistic healthcare practitioners around the world. New and exciting CT types, such as cupping massage and magnetic cupping, have enhanced its reputation and popularity. Innovative training methods and safety tools developed for cupping also helped in its restoration.\[23,65,66\] One key element of the popularity of cupping is its great ability to promote a state of pleasure and relaxation with a good safety profile.\[60\] Currently, CT is most widely used in China as part of TCM. Chinese hospitals have recognized CT as a formal modality of treatment since 1950.\[21\] Furthermore, medical practitioners in China and Mongolia regularly practice CT for treating hypertension, pain and infectious diseases.\[7,21,67\] CT is now practiced in many countries of the Eastern and Western world.\[27\] Some of the European countries changed their attitude towards complementary medicine and decided to integrate it within the conventional healthcare system.\[69,68\] In the United States, there have been a gradual increase in the use of CT and other types of complementary and integrative remedies.\[69\] In a recent report from Harvard Medical School about pediatric patients with chronic pain, authors reported that cupping and acupuncture treatments were pleasant and helpful for pain conditions.\[70\] Cupping treatment is used to reduce musculoskeletal inflammation and pain, and may consequently increase physical performance during sport activity.\[71\] The value of CT as a prophylactic method and its promotion of health and energy was implied during the 2016 Olympic Games held in Rio de Janeiro, Brazil, when an outstanding swimmer used it prior to a swimming event and broke the world record.\[72\] However, whether or not CT effectively enhances athletes’ performance is still questionable and needs further study. CT has a very long history, as shown in the timeline in Figure 3. In addition, CT studies, including randomized clinical trials,\[39,60,61,71–73\] systematic reviews and overviews of systematic reviews,\[21,28,76–79\] observational research and case studies\[7,23,54,62,63\] add to an increasing body of evidence-based data supporting the effectiveness of CT in the treatment of various diseases and recommend its continued practice and standardization in the future. Although these studies supported the effective use of CT against a plethora of diseases, it is recommended to conduct rigorous and high-quality studies to show further effectiveness of CT in various medical conditions. An extensive review of current studies on CT is beyond the scope of this historical review.

![Cupping Therapy Timeline](image)

Figure 3 Cupping therapy timeline

4 Discussion

The history of CT is as old as the history of human civilization. The first use of CT was recorded by ancient Egyptians in the Ebers Papyrus.\[1,17,28\] Later on, the Chinese practitioners used cupping to treat medical conditions for several thousands of years. Cupping is known by several names, as revealed in some
historical books written by ancient Chinese doctors and historians. Consequently, CT became one of the key components of TCM, and was used historically in the treatment of many conditions including human and animal bites, infected wounds, high blood pressure, skin diseases and other numerous diseases associated with or without pain. Other painful conditions, such as some types of headaches and migraines may also be treated with CT. These diseases are known to impose a large burden on public health around the world. However, further studies are needed to provide strong evidence that CT is effective in medical conditions associated with or without pain. Studies that estimate the cost-effectiveness of CT in various diseases are also needed.

Ancient Egyptians transferred cupping to Greek and Roman cultures, where Hippocratic physicians and Herodotus recommended the use of cupping for many medical conditions, including gastrointestinal and brain diseases. Ancient Greek physicians passed the skills of CT to Middle East societies. Prophet Muhammad was treated with CT and also recommended its use against a variety of diseases such as eye, skin, brain and digestion problems. Notably, only hollowed animal horns and bamboo cups were used in CT in Middle East cultures for the effective management of multiple ailments.

CT is known to have had periods of disfavor among clinicians. CT was criticized and overlooked by its opponents for many decades in the late 19th to early 20th century. Nonetheless, traditional practitioners continued to use CT in some areas of the world. With time, definitions of CT evolved, its medical use was expanded, cupping instruments were developed, medical research was conducted, its contraindications were identified and its mechanisms of action were suggested. Finally, CT is a promising therapy, as many studies are providing evidence-based data in favor of its effectiveness and safety.

Many theories describing the therapeutic mechanisms of CT, have been put forward over the centuries of its practice. Shaman in primitive societies believed it to suck devil and infirmity from the body. Beliefs that CT extracts toxic or poisonous substances (detoxification) in the blood were promoted in ancient times and continue to be part of our understanding of the technique. Sucking contaminated blood from the affected, inflamed area reduces congestion, increases fresh blood supply and may speed up recovery. CT also corrects imbalance in the internal bio-field through restoring the flow of Qi. Its other suggested mechanisms of action include boosting immunity and promoting anti-inflammatory process through the removal of oxidants and reduction of oxidative stress. CT applied to the inter-scapular area may help in discharging waste materials, invigorating the body metabolism and also regulating blood chemistry. In summary, the understanding of CT’s mechanisms of action has evolved over the centuries of its practice, and its detailed description is not the focus of this historical review paper.

This study has some limitations. Lack of specific research in the field of CT history, fragments of information, conflicting information and the lack of proper documentation of traditional healing practices are the main limitations. In addition, old archived sources of cupping history were difficult to access. In these cases, we have quoted them from other articles whose authors fortunately read the whole articles. Publication and selection biases are two other limitations of this paper. This is a narrative, qualitative review of cupping history; the quantitative data presentation in a tabulated form is beyond the scope of this study. However, the timeline of cupping history and its sequential map of different civilizations since ancient time are shown in Figure 3 and Figure 4, respectively.

There are some strengths to this review. This historical review of CT is based on scientific qualitative data collected from a large number of reliable sources. Lastly, this review has focused on all the ancient civilizations (Figure 4) that have contributed to the continuing development and continuation of CT around the world.

To conclude, Ancient Egyptians were the first to practice CT in the Western world and then they spread its practice to Greeks. Ancient Chinese, Greeks and Middle-East civilizations practiced CT and contributed

Figure 4 Ancient to modern civilizations and cupping therapy
to its continuous development. Simultaneously, cupping instruments and methods were improved and in each civilization, cupping was used effectively against a variety of ailments. Currently, the use of cupping is increasing for health promotion and treatment of variety of diseases across the world. CT has a good safety profile but is reported to have some side effects when used by untrained practitioners. There is a need for more research on the mechanisms of action, efficacy and safety of CT to provide evidence-based data and support in setting up CT standards, guidelines and regulations.

5 Conflicts of interest

The authors declared no conflicts of interest in this work.

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