

Cupping Therapy (Al-Hijama): It's Impact on Persistent Non-Specific Lower Back Pain and Client Disability

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Abstract: Low back pain is a common musculoskeletal disorder affecting 80% of people at some point in their lives. It is the most common cause of job-related disability, a leading contributor to missed work, and the second most common neurological ailment. Cupping is used in the treatment and cure of a broad range of conditions; general physical as back pain and mental well-being. This study *aimed* to evaluate effectiveness of cupping therapy (Al-Hijama) on management of persistent non-specific lower back pain and client disability. **Subjects & Methods,** The study was conducted at Islamic Al-Hijama Centre – Yanbu City – Al Madinah Al Munawarah - Kingdom of Saudi Arabia. Thirty adult clients diagnosed with nonspecific low back pain were enrolled in the study with inclusive and exclusive criteria; Data collection tools: Client assessment sheet; American Pain Society Client Outcome Questionnaire and Oswestry Low Back Pain Disability Questionnaire, **Results,** sample included (86.7%) males used wet cupping therapy (76.7%), there were highly statistical significant for assessment of pain pre and post cupping therapy; and client's ability to manage everyday life. **Conclusion,** cupping therapy is effective in relieving persistent non- specific lower back pain and client disability; no adverse effects were reported from subjects after the treatment. It is **recommended** that using cupping therapy for enhance disability and decrease pain of lower back pain.

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1. Introduction

Pain in the lower back or low back pain (LBP) is among the most debilitating, expensive, and most common clients' complaints rise during routine physical examinations worldwide. It is widespread in many countries, and is associated with substantial financial costs and loss of quality of life (*Farhadi et al., 2009*)

Low back pain is not a specific disease; rather it is a symptom that may occur from a variety of different processes. Low back pain is usually described as discomfort in the lumbosacral region of the back that may or may not radiate to the legs, hips, and buttocks. The pain may be due to a variety of causes, and many individuals may never receive a clear diagnosis for the cause of the pain. A small percentage may have a serious disease unrelated to the back. In up to 85% of people with low back pain, despite a thorough medical examination, no specific cause of the pain can be identified (*Shiel, 2012*).

While there are many causes of lower back pain, most cases of low back pain can typically be linked to either a general cause - such as muscle strain - or a specific and diagnosable condition, such as degenerative disc disease or a lumbar herniated disc (*Ullrich, 2007*).

Low back pain is typically classified as either acute or chronic: Acute lower back pain is short term, generally lasting from a few days to a few weeks.

Some acute pain syndromes can become more serious if left untreated. Chronic lower back pain is generally defined as pain that persists for more than three months. The pain may be progressive, or may occasionally flare up and then return to a lower level of pain. With chronic pain, the exact cause of the pain can sometimes be difficult to determine (*Ullrich, 2007*).

Persistent non-specific low back pain (PNSLBP) is one of the most common pain disorders in primary care. Eighty percent of the population experiences low back pain at least once in a lifetime, and 60% of the clients have recurrences (*Last, 2009*).

Non-pharmacological therapies in pain management. It is considered that these therapies help the standard pharmacological treatment in pain management. While medical drugs are being used for treating the somatic (physiological and emotional) dimension of the pain non pharmacological therapies aim to treat the affective, cognitive, behavioral and socio-cultural dimensions of the pain. These therapies can treat the pain as adjuvant or complementary at middle level and severe pain experiences as an adjuvant or complementary treatment (*Demir, 2012*).

Non-pharmacological methods used in pain management can be classified in different ways. In general; they are stated as physical, cognitive, behavioral and other complementary methods or as invasive or –non invasive methods. Meditation,

progressive relaxation, dreaming, rhythmic respiration, biofeedback, therapeutic touching, transcutaneous electrical nerve stimulation (TENS), hypnosis, musical therapy, acupressure and cold-hot treatments are non-invasive methods (*Black, 1997*). The most famous and common method among the invasive methods is acupuncture (*Menefee, 2005*).

Al-Hijama means cupping, but in Arab and Muslim culture it refers to wet cupping (*AlBedah, 2011*). Cupping therapy is a special treatment within traditional Chinese medicine. Due to its characteristics of being easy to learn and apply and having no side effects with effectiveness and safety. Cupping therapy is widely used all over the world, which a hollow vessel is attached to the skin surface by suction in order to prevent and cure diseases. In ancient times it was also known as "horn cupping and bamboo jar therapy" (*Shixi and Yu, 2006*).

History and origins of Cupping Therapy

Traditionally, Cupping Therapy has been practiced in most cultures in one form or another. The Arabic name for Cupping Therapy is Al-Hejamah which means to reduce in size i.e. to return the body back to its natural state. The practice of Al-Hejamah has been part of Middle-Eastern cultural practice for thousands of years with citations dating back to the time of Hippocrates (400 BC). Of the western world, the first to embrace Cupping Therapy were the ancient Egyptians, and the oldest recorded medical textbook, Ebers Papyrus, written in approximately 1550 BC in Egypt mentions cupping (*Curtis, 2005*). Anthropologists also found evidence in China of cupping dating as far back as 1,000 B.C. Its administration was first documented by *Ge Hong*, in an ancient article called Handbook of Prescriptions for Emergencies (*Baird, 2011*).

Cupping Therapy can be divided into two broad categories: Dry Cupping and Wet Cupping. Dry Cupping Therapy tends to be practiced more commonly in the Far-East whereas Wet Cupping is favored in the Middle East and Eastern Europe (*Stovner, 2007*).

Medical effects of Cupping Therapy

According to (*Hennawy, 2004*), Cupping Therapy is indicated for blood disorders, pain relief, inflammatory conditions, mental and physical relaxation, varicose veins and deep tissue massage and quotes up to 50% improvement in fertility levels.

Cupping is an ancient method of treatment that has been used in the treatment and cure of a broad range of conditions; blood diseases such as haemophilia and hypertension, rheumatic conditions ranging from arthritis, sciatica, back pain, migraine, anxiety and general physical and mental well-being.

The aim of Cupping is to extract blood that is believed to be harmful from the body which in turn rids the body of potential harm from symptoms leading to a reduction in well-being (*Ullah, 2007*).

Wet-cupping has been used as an alternative treatment method throughout the world, especially in Asia, the Middle East and Europe. The main purpose of this therapy is to precipitate the circulation of blood and to remove blood-stasis and waste from the body (*Kim, 2011*).

Benefits of Cupping: By creating suction and negative pressure, cupping has been found to affect the body up to four inches into the tissues, which is used to treat muscle pain and spasms, drain excess fluids and toxins, loosen adhesions, connective tissue and stubborn knots in soft tissue, stimulate blood circulation and bring blood flow to nourish stagnant muscles and skin, enhance the flow of energy, stimulate the peripheral nervous system, activate the lymphatic system, clear colon blockages, help activate and clear the arteries, veins, and capillaries, and improve varicose veins. Cupping draws the inflammation out, yet does not add to it. Due to its stimulating and strengthening effects cupping has been used successfully to treat all of the following: bowel conditions (IBS, constipation and diarrhea), headaches, back pain, arthritis, period pain, injuries, asthma, cellulite, fatigue (ME), anemia, depression and emotional problems, atrophy, sciatica, common cold and flu, skin problems, blood pressure, ladies problems, weight loss, and more (*Baird, 2011*).

Back pain is a very common presenting problem in general practice. Approximately 85% of the Australian population will experience back pain at some stage of their lives, while 70% of the world's population will have at least one disabling episode. At least 50% of these people will recover within two weeks and 75% within the month, but recurrences are frequent and have been reported in 40-70% of patients.¹ In the U.S.A., back pain is the most common cause of limitation of activity in people under 45 years of age (*Murtagh, 1994*).

Nowadays, Health practitioners of many modalities are using cupping to assist them in providing more effective methods for healing and recovery. Massage therapists, acupuncturists, physiotherapists, nurses, and doctors should train in cupping. It is the responsibility of the practitioner to carefully screen, educate and support their clients in this matter (*Cupping, 2006*).

Back pain is the leading cause of disability and it is the second most common reason people go to the doctors. Low back problem affect the spine's flexibility, stability and strength, which can cause pain, discomfort, and stiffness (*UMMC, 2011*)

Aim of the study:

This study aimed to evaluate effectiveness of cupping therapy (Al-Hijama) on management of persistent non-specific lower back pain and client disability.

Research Hypothesis

There are positive relationship between cupping therapy and decreasing lower back pain and disability.

2. Subjects & Methods

The present study was carried out to evaluate effectiveness of cupping therapy (Al-Hijamah) on management of persistent nonspecific lower back pain and client disability. The following methodology pursued in conducting the study.

Research Design:

Quasi-Experimental Design was used to achieve the aims of the study.

Setting:

The study was conducted at Islamic Al-Hijama Centre – Yanbu City –Al-Madinah Al Munawarah - Kingdom of Saudi Arabia.

Subjects:

Convenient samples of thirty adult clients diagnosed with nonspecific low back pain were enrolled in the study with inclusive and exclusive criteria.

- **Inclusion criteria:**(a) non-specific lower back pain persisting for 4 weeks or more; (b) age 20—60 years
- **Exclusion criteria** included possible spinal pathology (e.g., carcinoma), severe or progressive motor weakness or central disc prolapsed, pending litigation (e.g., workplace injury) bleeding disorders (e.g., hemophilia), anticoagulant use, and Subjects suffering from serious heart troubles, and pregnant women.

Data collection tools:

The data was collected using the following tools:-

1. Client assessment sheet; it is constructed by the researchers after reviewing the literatures (*Cao, 2010*)It includes
 - a. Sociodemographic characteristics of clients such as (age, sex, educational level, occupation, marital status...etc).
 - b. Client's assessment regarding cupping therapy (types of cupping therapy, using cupping therapy previously, number of

session, number of cups used during session and complains after cupping).

2. American Pain Society Client Outcome Questionnaire (APS-POQ) was adopted from (*Gordon, 2010*)and modified by the researchers .It is a numeric rating scale (NRS) in which six core quality indicators were recommended to provide measurement of the processes and outcomes of pain management. including (1) pain severity and relief; (2) impact of pain on activity, sleep, and negative emotions; (3) side effects of treatment(safety);, (4) helpfulness of information about pain treatment; and (5) perceptions of care (satisfaction);ability to participate in pain treatment decisions; and (6) use of non pharmacological strategies. This questionnaire used pre and post cupping therapy.

Scoring system**Pain Severity**

The original APS-POQ included pain severity ratings (0= no pain, 10 = worst pain possible) Horizontal scale of a percentage (0% to 100%) to measure the percentage of time the client experienced severe pain. In which 0% =never in severe pain, 100%always in severe pain.

Pain Interference Scale for Physical and Emotional Function

Interference with activity such as activities in bed, activities out of bed, falling asleep, and staying asleep that is scored 0= does not interfere,10 = completely interferes.

Interference with mood and emotions such as anxious, depressed, frightened, and helpless that is scored 0= not at all, 10= extremely

Developing side effects such as nausea, drowsiness, itching, dizziness that is scored 0=none, 10= sever.

How much pain relief have client received that is scored0= no relief, 100% = complete relief.

How client are satisfied with the results of pain treatment that is scored 0= extremely dissatisfied, 10= extremely satisfied

Information about pain treatment that is scored0=not at all helpful, 10= extremely helpful

3. Oswestry Low Back Pain Disability Questionnaire

This questionnaire was adopted from (*Fairbank, 2000; Davidson, 2002; Mehra et al., 2008*) and modified by the researchers. This questionnaire has been designed to give us information as to how back or leg pain is affecting client's ability to manage everyday life.

The Questionnaire including the following assessment items: (1) Pain intensity. (2) Personal care

(washing, dressing etc), (3) Lifting, (4) Walking, (5) Sitting, (6) Standing, (7) Sleeping, (8) Sex life (if applicable), (9) Social life, (10) Travelling.

Scoring systems

For each section the total possible score is 5: if the first statement is marked the section score = 0; if the last statement is marked, it = 5. If all 10 sections are completed the score is calculated as follows:

Example: 16 (total scored)

$(50 \text{ total possible score}) \times 100 = 32\%$

$\square 16/50 \times 100 = 32\%$

If one section is missed or not applicable the score is calculated:

Example: 16 (total scored)

$(45 \text{ total possible score}) \times 100 = 35.5\%$

$\square 16/45 \times 100 = 35.5\%$

The total score was calculated as the following:

0% to 20%: minimal disability.

21%-40%: moderate disability.

41%-60%: severe disability.

61%-80%: crippled.

81%-100%: These clients are either bed-bound or exaggerating their symptoms.

Pilot study: A pilot study was conducted to test the feasibility and applicability of the tools and the maneuvers of the interventions, and to estimate the time needed. It was carried on 5 clients; these clients were excluded from the study.

Ethical consideration of the study

To carry out the study, the necessary official approval was obtained from director of Islamic Al-Hijamah Centre. Oral informed consents were secured from each subject to participate after explaining the nature, purpose, and benefits of the study.

Subjects were provided information sheets detailing the research procedure, subject understanding of the research was considered and a consent form was provided prior to commencing the study. Subjects wishing at any time to withdraw from the study, or withhold any information were allowed to do so.

The cupping procedure involved the following steps:

- Instrumentation

Basic Cupping therapy equipment was utilized including a hand suction pump, plastic cups of the same size and anti-septic solution.

- The procedure

The following procedure as used:

Prior to commencing application of treatment, we ensured that:

- The subjects had complied with the pre-cupping requirements (inclusion criteria).
- Contra-indications were eliminated
- Equipment was sterilized
- Subjects were interviewed by the same researcher.
- Subjects were reassure/reminded of minor side effects (pain in sites of cups, redness and swelling, it is relieve after 24 hours from procedures).
- Vital signs for subjects were measured in a sitting position only to monitor subject general condition, and then subjects were asked to identify the level of their pain translation and fulfill disability questionnaires.
- Back observations were conducted for any abnormalities while placing the patient on prone position by the same researcher.
- The skin was disinfected; superficial incisions were made with disposable micro lancet at the areas of pain and voluminous glosses; double-walled glass cups (2–6 glasses with diameters from 25 to 50mm) were held inverted over an open flame to heat the air inside; the glass cup was placed on the incision.
- The air inside the cup cooled down and created a vacuum which sucked blood out through the incisions. The glasses were removed after 10 to 15 minutes, and the skin was disinfected and a plaster was applied. However, since bleeding generally stopped during treatment.
- The cupping application was performed at the back utilizing a razor for sterility purposes and control of depth and breadth of cuts. Cups were applied to the treatment region and the blood was carefully drained three times. The cupped region was managed as according to basic wound management procedures (i.e. antiseptics and gauze application)
- All measurements (level of their pain translation and client disability questionnaires) were repeated by the same researcher after three weeks after cupping.

Study maneuver:

- Written informed consent was obtained.
- A baseline assessment for study participants was done by the researcher through filling out the following questionnaires: 1. Client assessment sheet, 2. American Pain Society Client Outcome Questionnaire (APS-POQ), 3. Oswestry Low Back Pain Disability Questionnaire in pre procedures for cupping therapy.

- Two measures were used to assess outcome: pain and ability pre and after three weeks.
- Session for collecting data take about 40 minutes for every patient. Data collection for this study was carried out in the period from January 2012 until March 2012.
- Date was collected two days per week (Saturday and Wednesday). Every day take 2 clients. The pretest for all subjects took about five weeks.
- Posttest was done after three weeks using the same pretest tools and it took about 5 weeks also.

Administrative Design

Written approval was sought from manager of Islamic Al-Hijamah Centre – Yanbu City - Kingdom of Saudi Arabia.

Statistical Design:

The data was analyzed using descriptive analysis in the form of minimum, maximum, mean, and Standard Deviation (SD). The paired sample t-test was employed to determine the difference between subjects before and after cupping. The level of significance of this study was set at 5%. All data analysis was performed using Statistical Package for Social Sciences (SPSS) v.16 for Windows.

3. Results

Table (1) displays basic demographic characteristics of clients. It shows that mean \pm SD of age Mean \pm SD 35.63 \pm 8.81 while minimum and maximum of age was 21 to 60 year. As regard to sex, males was present (86.7%). As regards jobs of clients, this table revealed that heavy work and office work were (36.6%), (40.0) respectively. While as regards level of education clients have bachelor or diploma represent (40.0%) in the study.

Table (2) showed the client's assessment regarding cupping therapy, there was two third of them (76.7%) used wet cupping therapy. Regarding how many time used of cupping therapy previously, about two third (66.6%) of clients were used it one time. As regards number of session for cupping therapy, 40% of study sample were used two sessions. Also, more than half (53.3%) of clients taken 40 minutes in duration of cupping therapy session with used from 6 to 10 cups, and (90.0%) of clients sensation with comfortable after cupping therapy.

Table (3) showed that distribution of pre cupping therapy for client's ability to manage everyday life, more than half (63.3%) of clients with sever disability while minimal and moderate disability were 30.0% and 6.7% respectively, while in

the post cupping therapy for client's ability to manage everyday life, all (100.0%) of clients with minimal disability.

Table (4) showed the comparison between pre and post assessment of pain for client received cupping therapy there were highly statistical significant for severity and minimal sensation with pain, duration which client was suffering from severity of pain, negative effect of pain on ability of client included (ability to movement in bed as get up or change posture during sleeping, ability to movement in bed as standing or working or sitting, easy sleeping, continuous sleeping without disturbance) and negative effect of pain on client mood and feeling included (anxiety and sadness, depression) feeling with irritability when pain relieve with other methods, client have decision making for pain relieving, client satisfaction with pain treatment, client received any information or instruction about pain treatment, (9.186, 10.068, 9.515, 12.525, 7.371, 6.136, 7.884, 7.529, 5.025, -2.465, -3.733, -24.414, and -3.827) respectively.

Table (5) showed that comparison between total score for pre and post cupping therapy of client's ability to manage everyday life, there was highly statistical significant $t = 14.983$, $p < 0.01$.

Table (6) showed that no correlation between client's ability pre / post cupping therapy and number of cupping therapy, duration of session and number of cups used.

Table (7_a) reveals that; There are no correlation statistical significant between pre – post pain (physically) for patient received cupping therapy and number of cupping session, duration of session and number of cups used include that severity sensation with pain, minimal sensation with pain, duration which client was suffering from severity of pain, ability to movement in bed as get up or change posture during sleeping, ability to movement out bed as standing, can easy sleeping and continuous sleeping without disturbance ($p > 0.05$).

Table (7_b) reveals that; There are no correlation statistical significant between pre – post pain (psychologically) for patient received cupping therapy and number of cupping session, duration of session and number of cups used include that anxiety and sadness, depression, fear and irritability, weakness, feeling with irritability when pain relieve with other methods, client have decision making for pain relieving, client satisfaction with pain treatment, information or instruction about pain management whose helpful and using of other non - pharmacological method for pain relieving ($p > 0.05$).

Table (1): Socio-demographic data for clients received cupping therapy

Items	N= 30	%
Age :		
Minimum = 21.00		Mean±SD 35.63± 8.81
Maximum = 60.00		
Sex :		
Female	4	13.3
Male	26	86.7
Jobs :		
Heavy work	11	36.6
Office work	12	40.0
Academic work	2	6.7
Other	5	16.7
Education level:		
• Master or doctorate	2	6.7
• Bachelor (BNS)	12	40.0
• Diploma	12	40.0
• Less than diploma	4	13.3

Table (2): Client assessment's regarding client cupping therapy session

Items	N= 30	%
Types of cupping therapy		
▪ Dry cupping	7	23.3
▪ Wet cupping	23	76.7
Number of cupping therapy taken previous?		
▪ One time	20	66.6
▪ Two time	8	26.7
▪ More time	2	6.7
Number of sessions?		
▪ One session	17	56.7
▪ Two session	12	40.0
▪ More than	1	3.3
Duration of session to cupping therapy :		
▪ 60 min	12	40.0
▪ 40 min	16	53.3
▪ 30 min	2	6.7
Number of cups used		
▪ 1 ≤ 5	14	46.7
▪ 6≥10	16	53.3
Complains after cupping therapy:		
▪ Sever pain on site of cups.	3	10.0
▪ Sensation with comfortable	27	90.0
▪ No change occurrence	0	0.0

Table (3):Distribution of pre and post cupping therapy for client's ability to manage everyday life.

Items	Pre –Cupping Therapy		Post –Cupping Therapy	
	NO = 30	%	NO = 30	%
Minimal disability	2	6.7	30	100.0
Moderate disability	9	30.0	0	0.0
Sever disability	19	63.3	0	0.0
Crippled	0	0.0	0	0.0
Client are symptoms	0	0.0	0	0.0

Table (4): Comparison between pre and post assessment of pain for clients received cupping therapy.

Items	Pre-assessment	Post assessment	Pair t- test	P- value	Significance
	Mean ± SD	Mean ± SD			
1. Severity sensation with pain	6.5667 2.17641	1.3667 2.05918	9.186	<0.01	H.S
2. Minimal sensation with pain	5.8000 2.65746	0.3667 0.76489	10.068	<0.01	H.S
3. Duration which client was suffering from severity of pain	54.3333 21.76415	9.0000 12.68994	9.515	<0.01	H.S
4. Negative effect of pain on ability of client as.					
a. Ability to movement in bed as get up or change posture during sleeping.	6.1667 2.49252	0.2333 0.62606	12.505	<0.01	H.S
b. Ability to movement out bed as standing, working or sitting	4.8333 3.21723	0.5000 1.40810	7.371	<0.01	H.S
c. Can easy sleeping	3.9667 3.39861	0.1000 0.40258	6.136	<0.01	H.S
d. Continuous sleeping without disturbance	5.4333 3.53976	0.2000 0.48423	7.884	<0.01	H.S
5. Negative effect of pain on client's mood and feeling					
a. Anxiety and sadness	5.0667 3.38285	0.2000 0.61026	-7.529	<0.01	H.S
b. Depression	3.2000 3.48791	0.0000 0.0000	5.025	<0.01	H.S
6. Feeling with irritability when pain relieve with other methods	47.0000 28.05782	62.6667 28.75981	-2.465	<0.05	S
7. Client have decision making for pain relieving	2.9667 3.32683	5.9667 3.43896	-3.733-	<0.01	H.S
8. Client satisfaction with pain treatment	0.7667 1.25075	8.7000 1.64317	-24.414-	<0.01	H.S
9. Information or instruction about pain management whose helpful.	0.6667 1.80676	2.9667 3.17841	-3.827-	<0.01	H.S
10. Using of other Non pharmacological method for pain relieving.	10.4000 33.09922	0.0333 0.18257	1.715	>0.05	N.S

Table (5): Comparison between total score for pre and post cupping therapy of client's disability to manage everyday life.

Item	Pre - Cupping Therapy	Post- Cupping Therapy	Pair t- test	P- value	Significance
	Mean ±SD	Mean ± SD			
Total score for pre and post cupping therapy of client's ability to manage everyday life.	21.1333 5.56921	5.2000 2.48305	14.983	<0.01	H.S

Non significant (NS) = $P > 0.05$, Significant (S) = $P < 0.05$, High significant (HS) = $P < 0.01$

Table (6): Correlation between pre and post cupping therapy of client's ability to manage everyday life and number of cupping therapy; duration of session and number of cups used.

Items	Client's ability	
	Pre	Post
Number of cupping therapy taken previous.	r = .069 sig =.717 NS	r = .190 sig =.315 NS
Duration of session	r = .014 sig =.943 NS	r = .229 sig =.224 NS
Number of cups used.	r = .169 sig =.371 NS	r = 0.49 sig =.798 NS

Table (7a): Correlation between pre – post pain (physically) for patient received cupping therapy and number of cupping session, duration of session and number of cups used.

Items	Number of Cupping Session		Duration of Session		Number of Cups Used.	
	Pre No.= 30	Post No.= 30	Pre No.= 30	Post No.= 30	Pre No.= 30	Post No.= 30
1. Severity sensation with pain	r = -0.057- Sig = 0.766 NS	r = -0.125- Sig = 0.509 NS	r = 0.122 Sig = 0.521 NS	r = 0.350 Sig = 0.058 NS	r = -0.003- Sig = 0.989 NS	r = -0.289- Sig = 0.121 NS
2. Minimal sensation with pain	r = 0.092 Sig = .629 NS	r = -0.007- Sig = -0.696 NS	r = 0.150 Sig = 0.430 NS	r = -0.322- Sig = 0.083 NS	r = -0.170- Sig = .370 NS	r = -0.008- Sig = .968 NS
3. Duration which client was suffering from severity of pain	r = 0.134 Sig = 0.40 NS	r = -0.053- Sig = 0.781 NS	r = - 0.0174- Sig = 0.357 NS	r = 0.134 Sig = 0.479 NS	r = -0.101- Sig = 0.590 NS	r = -0.096- Sig = 0.615 NS
4. Ability to movement in bed as get up or change posture during sleeping.	r = -0.006- Sig = 0.976 NS	r = 0.117 Sig = .540 NS	r = -0.259- Sig = 0.168 NS	r = 0.121 Sig = 0.534 NS	r = 0.165 Sig = 0.385 NS	r = -0.074- Sig = 0.698 NS
5. Ability to movement out bed as standing, working or sitting	r = 0.070 Sig = 0.027 NS	r = -0.090- Sig = .637 NS	r = -0.012- Sig = 0.951 NS	r = -0.162- Sig = 0.394 NS	r = 0.088 Sig = 0.644 NS	r = 0.006 Sig = 1.000 NS
6. Can easy sleeping	r = 0.403 Sig = 0.027 NS	r = 0.063 Sig = .742 NS	r = -.128- Sig = 0.499 NS	r = -0.282- Sig = 0.130 NS	r = -0.063- Sig = 0.741 NS	r = 0.172 Sig = .363 NS
7. Continuous sleeping without disturbance	r = 0.227 Sig = 0.228 NS	r = 0.104 Sig = 0.583 NS	r = 0.262 Sig = 0.161 NS	r = -0.117- Sig = 0.537 NS	r = -0.106- Sig = 0.577 NS	r = 0.107 Sig = .572 NS

*Correlation is (not significant NS at > 0.05, significant S at <0.05, highly significant HS at <0.01).

Table (7b):Correlation between pre – post pain (psychologically) for patient received cupping therapy and number of cupping session, duration of session and number of cups used.

<u>Items</u>	Number of Cupping Session		Duration of Session		Number of Cups Used.	
	<i>Pre</i> No.= 30	<i>Post</i> No.= 30	<i>Pre</i> No.= 30	<i>Post</i> No.= 30	<i>Pre</i> No.= 30	<i>Post</i> No.= 30
1. Anxiety and sadness	r = -0.161- Sig = 0.396 NS	r = 0.221 Sig = 0.241 NS	r = 0.179 Sig = 0.343 NS	r = -0.373 Sig = 0.043 NS	r = 0.003 Sig = 0.986 NS	r = -0.057- Sig = 0.765 NS
2. Depression	r = 0.111 Sig = 0.559 NS	No. = 30	r = -0.098- Sig = 0.607 NS	No. = 30	r = 0.124 Sig = 0.513 NS	No. = 30
3. Fear and irritability	r = -0.006- Sig = 0.975 NS	No. = 30	r = 0.284 Sig = 0.18 NS	No. = 30	r = -0.184- Sig = 0.331 NS	No. = 30
4. Weakness	r = 0.111 Sig = 0.559 NS	No. = 30	r = 0.187 Sig = 0.321 NS	No. = 30	r = -0.136- Sig = 0.474 NS	No. = 30
5. Feeling with irritability when pain relieve with other methods	r = -0.132- Sig = 0.487 NS	r = -0.172- Sig = .364 NS	r = -0.061- Sig = 0.750 NS	r = 0.264 Sig = 0.159 NS	r = 0.037 Sig = 0.846 NS	r = 0.032 Sig = 0.866 NS
6. Client have decision making for pain relieving	r = 0.183 Sig = 0.333 NS	r = 0.091 Sig = 0.631 NS	r = -0.177- Sig = 0.351 NS	r = 0.028 Sig = 0.885 NS	r = 0.113 Sig = 0.552 NS	r = -0.007 Sig = 0.972 NS
7. Client satisfaction with pain treatment	r = 0.025 Sig = 0.333 NS	r = -0.123- Sig = 0.517 NS	r = 0.212 Sig = 0.260 NS	r = 0.346 Sig = 0.061 NS	r = -0.171- Sig = 0.360 NS	r = -0.053- Sig = 0.782 NS
8. Information or instruction about pain management whose helpful.	r = 0.085 Sig = 0.897 NS	r = -0.338- Sig = 0.068 NS	r = -0.168- Sig = 0.375 NS	r = 0.155 Sig = 0.413 NS	r = 0.093 Sig = 0.626 NS	r = -0.024- Sig = 0.901 NS
9. Using of other Non pharmacological method for pain relieving.	r = -0.003- Sig = 0.986 NS	r = -0.108- Sig = .572 NS	r = -0.347- Sig = .060 NS	r = 0.415 Sig = 0.023 NS	r = 0.292 Sig = 0.117 NS	r = -0.253- Sig = 0.177 NS

*Correlation is (not significant NS at > 0.05, significant S at <0.05, highly significant HS at <0.01).

4. Discussion

A discussion of the finding will cover three main areas; **first**: socio-demographic data and assessment for client's received cupping therapy; **second**: pain assessment for client in pre and post cupping therapy; and **third**: client's disability for manage every daily life.

First, client's socio-demographic data and assessment about cupping therapy, the study results reveals mean± SD of age for clients' receiving cupping therapy was (35.63 ± 8.81 years) and the majority of them were males with heavy work or office work with different educational level as bachelor or diploma equal percentage. This finding congruent with (Katz,2006) report that an initial

episode of back pain typically occurs between 30 and 40 years of age. The likelihood of having low back pain increases with age.

The results of the current study revealed that two third of client were used wet cupping therapy. In the contradict with(Cao, 2010)added that There are seven major types of cupping practice in China. Usually, cupping practitioners utilize the flaming (dry) heating power to achieve suction (minus pressure) inside the cups to make them apply on the desired part of the body. This basic suction method of cupping therapy is called retained cupping, which is most commonly used in Chinese clinics as the first type of cupping. Besides this kind of suction, different types of cupping composed with different

methods. The second type of cupping is bleeding cupping (or wet cupping), which contains two-steps: before the suction of the cups, practitioners should make some small incisions with a triangle-edged needle or plum-blossom needle firmly tapping the cupping point for a short time to cause bleeding; the third one is moving cupping, which practitioners should control the suction.

The finding of the present study revealed that two third from clients used cupping therapy one time through one session, this finding contradict with (Kim, 2011) who reported that Pain is the most common reason for seeking therapeutic alternatives to conventional medicine and the more severe the pain, the more frequent is the use of such therapies. Frequently used treatments include cupping therapy, acupuncture, and massage and mind-body therapies.

The finding of the present study revealed that more than half of the subjects taken session through 40 minutes used from six to ten cups, this finding was congruent with (Lauche et al., 2012) who Based on used double-walled glass cups (2–6 glasses with diameters from 25 to 50 mm) were held inverted over an open flame to heat the air inside; the glass cup was placed on the incision. The air inside the cup cooled down and created a vacuum which sucked blood out through the incisions. The glasses were removed after 10 to 15 minutes, and the skin was disinfected and a plaster was applied. However, since bleeding generally stopped during treatment, this was only a precaution. Cupping process for one sitting will take up to average 45 minutes. (Can vary depending on patient) and times to do cupping, Depending on the health and disease of a patient concern doctor will prescribe.

The results of this study revealed the majority of clients were sensation with comfortable after cupping therapy which is conflict with (Lin, 2009) who reported that Cupping is a form of alternative pain therapy that cupping therapy this technique is the fact that the vacuum force on the particular point to relieve pain and other systemic disorders. Erythema, edema, and ecchymosis are the most common complications; however, they are created on purpose to affect acupuncture point microcirculation.

This results showed that comparison between pre and post cupping therapy of client's pain assessment, there was highly statistical significant which is agree with (Breivik, 2008) who reported that valid and reliable assessment of pain is essential for both clinical trials and effective pain management. The nature of pain makes objective measurement impossible. Acute pain can be reliably assessed, both at rest (important for comfort) and during movement (important for function and risk of postoperative complications), with one-dimensional tools such as

numeric rating scales or visual analogue scales. Both these are more powerful in detecting changes in pain intensity than a verbal categorical rating scale. In acute pain trials, assessment of baseline pain must ensure sufficient pain intensity for the trial to detect meaningful treatment effects. Chronic pain assessment and its impact on physical, emotional, and social functions require multidimensional qualitative tools and health-related quality of life instruments.

Also; the outcome measurements used in this study seem to be suitable for evaluating the pain and disability of Persistent non-specific low back pain (PNSLBP) patients and for assessing the therapeutic effect of wet-cupping. The result of study implies that may have a potential effect to reduce current pain associated with PNSLBP. (Kim, 2011).

The finding of this study reveal that comparison between total score for pre and post cupping therapy of client's ability to manage everyday life, there was highly statistical significant which is agreement with (Lauche et al., 2012) say Chronic back pain is associated with functional changes and besides this pain is related impairment in daily activities. And (Farhadi et al., 2009) Those individuals in the wet cupping intervention group reported less pain intensity, less pain-related disability, and less medication use than those in the usual care group. Duration of pain also emerged as a predictor of the three outcomes in the linear regression models, with better outcomes in individuals with a shorter duration of pain. Finally, previous spinal surgery was a significant predictor of pain-related disability, with those patients who had a history of surgery reporting more pain-related disability.

The finding of this study reveal that no correlation between client's ability pre / post cupping therapy and number of cupping therapy, duration of session and number of cups used, this are compatible with our result in which about two third of the subjects make cupping therapy once time and for one session only and which is disagreement with (Lauche et al. 2012) reported that Patients treated with cupping therapy showed significant improvements in their symptoms. Pain at rest (PR), maximal pain related to movement (PM), and bodily pain were reduced after a single cupping treatment. Pain diary (PaDi) showed a significant decline in pain ratings already on the day after cupping. According to the quality of life questionnaires (SF-36), the cupping treatment also significantly decreased bodily Pain and improved Physical Functioning as well as the Physical Component Score.

The finding of this study reveal that no correlation statistical significant between pre – post pain (physical & psychologically) for patient received cupping therapy and number of cupping session,

duration of session and number of cups which is disagreement with (Farhadi et al., 2009) who stated that traditional wet-cupping care delivered in a primary care setting was safe and acceptable to patients with nonspecific low back pain. Wet-cupping care was significantly more effective in reducing bodily pain than usual care at 3-month follow-up.

Also (Yoo, 2004) reported that; Cupping has been used for a number of ailments. Mainly described as treatment for chronic pain including lower back pain, and headache, it has also been used to treat other nonspecific disease processes including indigestion and menstrual disturbance. Also (Smith, 2001) report that Chronic pain and disability is not simply a physical problem. It is associated with severe and extensive psychological, social and economic factors, with high demand on the health services as a result, particularly primary care. Apart from poor general physical health and disability there may also be depression, unemployment, and family stress. Many of these factors interact, and the whole picture needs to be considered when managing individual patients.

The finding of this study reveal that no correlation between client's ability pre / post cupping therapy and number of cupping therapy, duration of session and number of cups used. In the contradict with (Van Tulder, 2001) define pain without an underlying diagnosis is treated conservatively with tolerable activity and reassurance. For acute back pain, it has been found that the resumption of activity as tolerated is superior to bed rest (activity facilitates recovery), but short periods of bed rest may be necessary for severe symptoms. In cases of chronic pain that is unresponsive to conservative treatment.

Conclusion and Recommendation

Results from the present study suggest that wet-cupping is associated with greater short term clinical benefit than usual care. No adverse effects were reported from subjects after the treatment. There are highly statistical significant for pain and disability for client between pre and post cupping therapy. It is recommended that using cupping therapy for enhance disability and decrease pain of lower back pain.

Cupping has also been found to affect the body up to four inches into the tissues, causing tissues to release toxins, activate the lymphatic system, clear colon blockages, help activate and clear the veins, arteries and capillaries, activate the skin, clear stretch marks and improve varicose veins. Cupping is the best deep tissue massage available. Cupping, the technique, is very useful and very safe and can be easily learned and incorporated into family health practices.

List of abbreviations

NRS: numerical rating scale; ODQ: Oswestry Disability Questionnaire; PNSLBP: Persistent non-specific low back pain; PPI: McGill Pain Questionnaire for pain intensity;

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