WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

An Overview of Cupping Therapy in Gynaecological disorders: Current Evidence and Future Directions

***[1]Sana Jameel, [1]Prof. Suboohi Mustafa, [2]Rashmi Chauhan, [3]Hina Meraj**

[*1]PG Scholar, [1]Professor, Department of Niswan wa Qabalat, Ajmal Khan Tibbiya College, A.M.U, Aligarh, UP, India.
[2]PG Scholar Department of Ilmul Saidla, Ayurvedic & Unani Tibbia College and Hospital, Karol Bagh, New Delhi, Delhi, India
[3]PG Scholar, Department of Niswan wa Qabalat, Ajmal Khan Tibbiya College, A.M.U, Aligarh, UP, India.

ABSTRACT:

Introduction: The exploration of complementary and alternative therapies in healthcare has led to increased interest in cupping therapy for the management of gynaecological disorders. This review seeks to critically examine existing evidence on the efficacy of cupping in addressing symptoms associated with gynaecological conditions such as menstrual pain, infertility and abnormal uterine bleeding etc. As an ancient practice, cupping involves creating suction on the skin using cups, purportedly promoting blood flow and alleviating various ailments. Despite historical use, the scientific validity of cupping in gynaecology remains unclear. This review aims to contribute to the current understanding by synthesizing available literature, identifying gaps in knowledge and emphasizing the necessity for high-quality research in this evolving area of healthcare.

Methods: A comprehensive search of electronic databases was conducted to identify relevant studies including randomized controlled trials, observational studies, pilot studies, quasi-experimental study and preliminary studies. Studies assessing the use of cupping therapy in gynaecological disorders were included.

Results: This review identified a range of studies including four randomized controlled trials, two preliminary, one quasi experimental study, one observational study and one pilot study comprising 645 patients with various gynaecological disorders such as dysmenorrhoea, amenorrhoea, infertility, polycystic ovarian syndrome etc. Majority of the studies showed positive result.

Discussion: The evidence from all studies of cupping seems positive. None of the reviewed trials reported severe adverse events. The number of trials and the total sample size are too small to distinguish between any non-specific and specific effects, which preclude any firm conclusions. Moreover the methodological quality was often poor. Key outcomes assessed included changes in symptoms, hormonal profile and fertility-related parameters.

Conclusion: Despite promising findings in some studies, the overall evidence on the effectiveness of cupping therapy in gynaecological disorders is limited and heterogeneous. . Further research efforts guided by rigorous methodology and transparent reporting are needed to clarify the potential benefits and limitations of cupping therapy in this context.

Keywords: cupping therapy, gynaecological disorders, randomized controlled trials, heterogeneous.

I. Introduction:

Cupping is a physical therapy administered by acupuncturists and other therapists that involves applying suction to the skin over an acupuncture point or painful area using a glass or bamboo cup. It has been reported to lessen a variety of symptoms, including pain, and is primarily utilized in Asian and Middle Eastern nations. (Kim J. I. et al, 2021). Wet cupping and dry cupping are the two forms of cupping therapy that are currently in use. The local underlying tissue is merely drawn up into the suctioning cup by dry cupping. Wet cupping uses the same method, but adds scarification and bloodletting (Ahmadi A et al, 2008). Cao et al conducted a comprehensive study in which they listed eight different forms of cupping therapy: water cupping, herbal cupping, needle cupping, moxa cupping, wet cupping, moving cupping, retained (dry) cupping, and empty (flash) cupping (Al-Bedah A et al, 2018).Earthenware, glass, or bamboo can be used to make the cup itself. The exact process underlying cupping therapy remains unclear, however, some researchers propose that applying cups to specific acupoints on the skin causes hemostasis or hyperemia, which in turn generates a therapeutic effect (Cao, H. et al, 2012). In a review, Abdullah M.N. Al-Bedah listed some potential cupping therapy mechanisms based on certain ideas. Pain reduction and changes in biomechanical features of the skin could be described by “Pain-Gate Theory”, “Diffuse Noxious Inhibitory Controls” and “Reflex zone theory”. The "Nitric Oxide theory" may provide an explanation for changes in local tissue architecture, increased blood circulation, and muscle relaxation. One possible explanation for immunological impacts and hormonal changes is the "Activation of immune system theory." A possible explanation for the release of toxins and the elimination of wastes and heavy metals is the "Blood Detoxification Theory"(Al-Beda et al, 2018). Cupping therapy has showed considerable advantages in resolving various forms of pain, notably musculoskeletal pain such as knee osteoarthritis (Li J.Q. et al, 2017) and migraines

(Ersoy S. et al, 2020) etc. Apart from pain, wet cupping is also helpful in reducing blood pressure (Aleyeidi, et al, 2015). Cupping therapy has been increasingly explored as a complementary treatment in gynaecology. Although its use in managing gynaecological conditions is still under scientific investigation, traditional medical systems like Chinese medicine and Unani have long employed cupping for reproductive health issues. Below we discuss its potential applications for specific gynaecological disorders, supported by available studies. By synthesizing data from diverse sources, we aim to provide a comprehensive overview of the outcomes associated with cupping therapy in the management of gynaecological disorders such as menstrual irregularities, dysmenorrhea, infertility and menopausal symptoms. Through this rigorous analysis, we intend to offer insights into the potential mechanism of action identify gaps in current research and guide future investigations.

II. Material and method:

In this narrative review, PubMed, Science Direct and Google Scholar were searched without time limit. Studies included were from 2010 to 2021. Keywords such as dry and wet cupping, gynaecological disorders, menstrual disorders, pelvic, clinical trial and related terms were searched. Studies assessing the role of cupping therapy in treating gynaecological disorders, including randomized controlled trials, observational studies and other research designs were included. Studies without clear relevance to cupping therapy in gynaecological conditions, non-English language studies and studies lacking sufficient methodological quality were excluded.

Table 1:

First author and Year of Publication	Sample size	Condition/ Disease	Type of Study	Intervention	Duration	Result/Conclusion
Yazdanpanahi Z et al, 2017	150	Postpartum low back pain	RCT	G I: Dry Cupping (n=50); G II: Acupressure (n=50) CG: No treatment (n=50)	2 weeks	In the cupping group, the mean difference of postpartum low back pain intensity reach from 31.8±10.8 before the intervention to 4.1±3.6 2 weeks after intervention, showed a significant difference ($p < 0.05$).
Abduljabbar H et al, 2016	59	Female infertility	Pilot study	Dry Cupping (n=59)	Each month at day 2 of menses until pregnancy occur (Maximum 7 cycle)	Out of 59 women who had Hijama, 12 (20.3%) got pregnant. There was significant reduction in the level of LH ($p= <0.05$) and FSH ($p= <0.001$). There was no significant reduction in the level of TSH ($p= 0.012$) nor prolactin ($p=0.545$)
Maryam T et al, 2018	150	Primary Dysmenorrhea	RCT	Dry Cupping Group (n=75) CG (n=75)	three consecutive cycle	The mean scores of dysmenorrhea severity and systemic symptoms in the intervention group significantly decreased over time as compared to CG ($p=0.03$).
Sultana A et al, 2010	25	Primary & Secondary Dysmenorrhea	Preliminary study	Dry cupping Primary dysmenorrhea (n=12); secondary dysmenorrhea (n=13)	one cycle	The mean and standard error mean of pain intensity, calculated by VAS before and after treatment was 6.48 (0.32) and 2.12 (0.32) respectively with $p<0.001$ considered significant.
Parveen R et al, 2014	40	Secondary Amenorrhea	RCT	Wet cupping group (n=20); CG= 20	3 consecutive cycle	The effect of wet cupping in initiation of menstruation was clinically significant as compared to CG. Changes in serum estradiol were strongly significant in cupping group with $p <0.001$.
Meyari A et al, 2022	66	PCOS	Quasi-experim	Wet cupping (n=66)	3 consecutive cycle	Wet cupping on calf muscles significantly improved menstrual cycle's

			ental study			frequency 0.37, p=0.001 and hirsutism after 12 weeks of intervention was -1.4, p-value <0.001.
Nasrat A M et al, 2015	80	Pelvic Congestion Syndrome	Observational study	Wet cupping (n=80)	1 year 4 months	60 patients (75%) expressed relief of their pain after cupping. Among them, 10 patients with dysmenorrhea needed revision of the cupping session once, while 5 patients with CPP required a third session in order to achieve complete pain relief.
Pinar G et al, 2021	60	Menopause specific quality of life	RCT	Wet cupping (n=30); CG (n=30)	2 weeks	Women treated with wet cupping showed significant improvements in their vasomotor, physical and sexual symptoms (p<0.001). No significant effect was found for pyscho-social area (p>0.05). No adverse effects were recorded after treatment.
Sultana A et al, 2012	15	Heavy menstrual bleeding	Preliminary study	Dry cupping (n=15)	3 consecutive cycle	The mean scores of menstrual blood loss before and after the treatment was 400.26 (277.95) and 48.4 (32.082) ml respectively, p=0.002, considered statistically significant.

RCT= Randomized Controlled Trial; G= Group; CG= Control Group; VAS= Visual Analogue Scale; PCOS= Poly Cystic Ovarian Syndrome; CPP= Chronic Pelvic Pain

III. Result:

This review included 9 studies. Four RCTs (Yazdanpanahi Z et al, 2017; Maryam T et al, 2018; Parveen R et al, 2014; Pinar G et al, 2021), two preliminary studies (Sultana A et al, 2010; Sultana A et al, 2012), one quasi experimental study (Meyari A et al, 2022), one observational study (Nasrat A M et al, 2015) and one pilot study (Abduljabbar H, 2016) met our inclusion criteria and their key data are listed in table 1. Two of the included RCTs (Yazdanpanahi Z et al, 2017; Maryam T et al, 2018) and one quasi experimental study (Meyari A et al, 2022) were originated from Iran. Two of the preliminary studies (Sultana A et al, 2010; Sultana A et al, 2012) and one RCT (Parveen R et al, 2014) was from India. One RCT (Pinar G et al, 2021) was from Turkey. One observational study (Nasrat A M et al, 2015) and one pilot study (Abduljabbar H et al, 2016) was from Saudi Arabia. Five studies employed dry cupping (Yazdanpanahi Z et al, 2017; Abduljabbar H et al, 2016; Maryam T et al, 2018; Sultana A et al, 2010; Sultana A et al, 2012) while four with wet cupping (Parveen R et al, 2014; Meyari A et al, 2022; Nasrat A M et al, 2015; Pinar G et al, 2021). Four RCTs employed the methods of randomization (Yazdanpanahi Z et al, 2017; Maryam T et al, 2018; Parveen R et al, 2014; Pinar G et al, 2021) but the method of randomization in one trial was unspecified (Maryam T et al, 2018). Among those that did, one study used block randomization (Yazdanpanahi Z et al, 2017), one used lottery method (Parveen R et al, 2014) and one used random number table (Pinar G et al, 2021).

The treated conditions were Postpartum low back pain (Yazdanpanahi Z et al, 2017), Female infertility (Abduljabbar H et al, 2016), Primary (Maryam T et al, 2018; Sultana A et al, 2010) and Secondary (Sultana A et al, 2010) Dysmenorrhea, Secondary Amenorrhea (Parveen R et al, 2014), PCOS (Meyari A et al, 2022), Pelvic Congestion Syndrome (Nasrat A M et al, 2015), Menopause specific quality of life (Pinar G et al, 2021) and Heavy menstrual bleeding (Sultana A et al, 2012). One study compared the effect of dry cupping on postpartum low back pain (Yazdanpanahi Z et al, 2017) with acupressure and no treatment and reported favourable effects of cupping after 2 weeks intervention (p<0.05). Another study (Abduljabbar H et al, 2016) showed the effect of dry cupping on female infertility and suggested that 20.3% women who had cupping got pregnant. Third study (Maryam T et al, 2018) suggested that the dry cupping significantly decreased the dysmenorrhea severity (52%) and systemic symptoms (78%) over time (p=0.03). The fourth study (Sultana A et al, 2010) also tested dry cupping for primary and secondary dysmenorrhea and suggested significant difference in pain intensity calculated by VAS score (p<0.001). The fifth study (Parveen R et al, 2014) reported that six sessions of wet cupping were more effective than compared to habbe mudir in inducing menstruation (<0.001). The sixth, Quasi-experimental study (Meyari A et al, 2022) showed favourable effect of wet cupping on PCOS on day 26 of their last menstrual cycle for 3 consecutive weeks. Another observational study (Nasrat A M et al, 2015) on pelvic congestion syndrome for duration of 1 year and 4 months suggested effective pain relief (75%) after wet cupping with a maximum of three sessions. A further RCT (Pinar G et al, 2021) of wet cupping on menopausal symptoms compared with routine self-care showed significant improvements in their vasomotor, physical and sexual symptoms (p>0.001), though no significant effect was found for psycho-social area. A preliminary study (Sultana A et al, 2012) on heavy menstrual bleeding reported significant result on the reduction in the amount of menstrual blood loss with a mean score 400.26 ml and 48.4 ml before and after treatment respectively with a p-value of 0.002.

IV. Discussion:

This comprehensive review on cupping therapy in gynaecological disorders presents a thorough examination of existing research, aiming to evaluate the efficacy and safety of this traditional practice. Few rigorous studies have tested the effects of cupping on various gynaecological disorders. The evidence from all studies of cupping seems positive. None of the reviewed trials reported severe adverse events. The number of trials and the total sample size are too small to distinguish between any non-specific and specific effects, which preclude any firm conclusions. Moreover the methodological quality was often poor. The outcomes assessed encompass changes in intensity of low back pain (Yazdanpanahi Z et al, 2017) as per McGill Pain Questionnaire, alterations in hormonal profiles and fertility achievement (Abduljabbar H et al, 2016; Parveen R et al, 2014; Meyari A et al, 2022), multidimensional dysmenorrhea severity scoring system & dysmenorrhea-associated systemic symptom scale (Maryam T et al, 2018), Visual Analogue Scale Score (Sultana A et al, 2010), restoration of normal menstruation, changes in body mass index, change in pelvic scan (Parveen R et al, 2014; Meyari A et al, 2022), relief in pain (Nasrat A M et al, 2015), improvement in menopausal symptoms (Pinar G et al, 2021) and changes in menstrual pictogram (Sultana A et al, 2012). The included studies vary in design, making it challenging to directly compare results and draw overarching conclusions. Some studies had small sample size and lack rigorous methodology, potentially affecting the reliability of findings. Variations in treatment durations and subjectivity of outcomes are the other limitations in this review. Assuming that cupping was beneficial for the management of various gynaecological disorders, its mechanism of action may be of interest.

In conclusion, the results of this review provide some suggestive evidence for the effectiveness of cupping in managing certain gynaecological disorders. However, the total numbers of studies included in the analysis were too low to draw firm conclusions. Ultimately, while cupping therapy may offer promising avenues for managing certain gynaecological conditions, its integration into clinical practice should approached with careful consideration, alongside evidence-based medical approaches, to ensure the safety and well-being of individuals seeking treatment for gynaecological issues. Further research efforts guided by rigorous methodology and transparent reporting are needed to clarify the potential benefits and limitations of cupping therapy in this context.

V. Reference:

1. Abduljabbar H et al. Hijama (wet cupping) for female infertility treatment: a pilot study. Int J Reprod Contracept Obstet Gynecol. 2016 Nov; 5(11):3799-3801.
2. Sultana A, Rahman K, Farzana M et al. Efficacy of Hijamat Bila Shurt (Dry Cupping) on intensity of pain in dysmenorrhoea- A preliminary study. Ancient Science of Life. 2010; 30(2): 47-50.
3. Pinar G, Gokgoz N. The effect of wet cupping therapy on menopause specific quality of Life: A randomized-controlled trial. J. Women Health Care and Issues. 2021; 4(5).
4. Meyari A, Tansaz M, Ramezani F et al. Wet cupping on calf muscles in polycystic ovary syndrome: a quasi-experimental study. Journal of Complementary and Integrative Medicine. 2022; 19(2):441-447.
5. Nasrat AM, et al. Role of blood-let out cupping therapy in female pelvic congestion syndrome. Gen Med (Los Angel). 2015; S1:S1-003.
6. Parveen R, Shameem I. Effect of wet cupping (Hijamat Bil Shurt) in the management of secondary Amenorrhea (Ehtebas Tams Sanwi). RRJoUSH. 2014;1(1):12-19.
7. Sultana A, Rahman KU. Effect of traditional dry cupping therapy on heavy menstrual bleeding in menorrhagia: A preliminary study. TANG (HUMINTAS MEDICINE). 2012; 2(4):1-33.
8. Maryam T, Maryam M, Azam K et al. The effects of dry cupping on primary dysmenorrhea: A randomized clinical trial. Nursing and Midwifery Studies. 2018; 7(4):151-156.
9. Yazdanpanahi Z, Ghaemmaghami M, Akbarzadeh M, Zare N, Azisi A. Comparison of the effects of dry cupping and acupressure at acupuncture point (BL23) on the women with postpartum low back pain (PLBP) based on short form McGill pain Questionnaires in Iran: A randomized controlled trial. J Family Reprod Health. 2017 Jun; 11(2):82-89.
10. Kim, Jong-In, et al. “Cupping for Treating Pain: A Systematic Review.” *Evidence-Based Complementary and Alternative Medicine*, vol. 2011, no. 1, Jan. 2011, p. 467014.
11. Ahmadi, Alireza, et al. “The Efficacy of Wet-Cupping in the Treatment of Tension and Migraine Headache.” *The American Journal of Chinese Medicine*, vol. 36, no. 01, Jan. 2008, pp. 37–44.
12. Al-Bedah, Abdullah, et al. “Classification of Cupping Therapy: A Tool for Modernization and Standardization.” *Journal of Complementary and Alternative Medical Research*, vol. 1, no. 1, Jan. 2016, pp. 1–10.
13. Cao, Huijuan, et al. “An Updated Review of the Efficacy of Cupping Therapy.” *PLoS ONE*, edited by German Malaga, vol. 7, no. 2, Feb. 2012, p. e31793

14. Al-Bedah, Abdullah M. N., et al. “The Medical Perspective of Cupping Therapy: Effects and Mechanisms of Action.” *Journal of Traditional and Complementary Medicine*, vol. 9, no. 2, Apr. 2019, pp. 90–97.

15. Ersoy, Suleyman, and Ali Ramazan Benli. “Continue or Stop Applying Wet Cupping Therapy (al-Hijamah) in Migraine Headache:A Randomized Controlled Trial.” *Complementary Therapies in Clinical Practice*, vol. 38, Feb. 2020, p. 101065.

16. Li, Jin-Quan, et al. “Cupping Therapy for Treating Knee Osteoarthritis: The Evidence from Systematic Review and Meta-Analysis.” *Complementary Therapies in Clinical Practice*, vol. 28, Aug. 2017, pp. 152–60.

17. Aleyeidi, Nouran A., et al. “Effects of Wet-Cupping on Blood Pressure in Hypertensive Patients: A Randomized Controlled Trial.” *Journal of Integrative Medicine*, vol. 13, no. 6, Nov. 2015, pp. 391–99.