

THE EFFECTIVENESS OF WET CUPPING THERAPY ON BLOOD PRESSURE AND PAIN: A QUASI EXPERIMENTAL STUDY

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ABSTRACT

Hypertension is essential to manage to prevent the un-comfortable pain and its complications. This quasi-experimental study was to investigate the effectiveness of cupping therapy on blood pressure and pain management. This study was to know the effect of wet cupping to blood pressure and pain. A number of fourteen people whose blood pressure was above normal and wanted to join in this study had included. A Wilcoxon Signed Rank Test was used to analyze a systolic blood pressure, diastolic blood pressure and pain number before and after a single intervention of wet cupping. The majority of the sample was in the middle aged, male and housewife (76%, 57%, and 36%, respectively). The statistical test results show that Asym. sign (2-tailed) was <0.05 (systolic blood pressure 0.017; diastolic blood pressure 0.036; pain 0.001). This showed that there was a statistical difference between systolic blood pressure, diastolic blood pressure, and pain before and after wet cupping. The findings of this study will contribute to the understanding of the potential benefits of cupping therapy in managing blood pressure and pain, providing valuable insights for healthcare practitioners especially a nurse and individuals seeking alternative treatment options.

Keywords: cupping, blood pressure, pain

INTRODUCTION

The medical condition known as hypertension, or high blood pressure, impacts millions of individuals globally. The prevalence of hypertension is expected to decline globally from 22.1% in 2015 to 20.3% (20.2-20.4%) in 2040, according to recent projections. But the prevalence varies a lot between areas and socioeconomic classes (Boateng & Ampofo, 2023; WHO, 2013). In 2019, it saw a 32% increase in the global age-standardized prevalence of hypertension in individuals 30-79 years old in women and a 34% (32-37) increase in men (WHO, 2024a). According to WHO data projection, Singapore is likely to have the lowest incidence of hypertension by 2040, with a reduction of 65.7% in females, while Croatia is predicted to have the greatest prevalence in males, at 41.1%. Low-income nations have the greatest rate of hypertension prevalence, with an estimated 29.4% for both conditions (Mills et al., 2017; Bantas & Gayatri, 2019; WHO, 2023).

As high blood pressure, or hypertension, frequently shows no symptoms, it is referred to as a "silent killer." On the other hand, symptoms like headaches, nosebleeds, and dizziness may occur in extreme cases. Regular blood pressure monitoring is essential because elevated blood pressure raises the risk of some diseases, regular blood pressure monitoring is crucial. Heart disease, strokes, and other serious illnesses exist (Alamgir, 2018; Tackling & Borhade, 2024; WHO, 2024b).

Patients with hypertension who believe in traditional therapy and are reluctant to see medical professionals may have several reasons for this, such as a lack of knowledge about the illness, cultural norms, and worries about adverse drug reactions. According to a South African study, patients felt that their antihypertensive therapy was essential to preserving their health, but they were also quite concerned about the side effects of the drug. A study conducted in Malaysia investigated the impact of spirituality, religion, and culture on the adherence to antihypertensive drugs. The results showed that cultural norms that negatively impacted

medicine adherence included the attitude that "natural is safe," ignorance, and faith in witness testimony (Azizah & Wahab, 2021;Sundararajan et al., 2023).

Cupping therapy is not a necessary treatment for every patient with hypertension. But, it might be an extra therapeutic alternative for those who prefer non-pharmacological treatments and appreciate traditional medicine. Cupping therapy is an effective tool for monitoring blood pressure changes and pain thresholds in hypertensive individuals (Lu et al., 2018; Imaningtias et al., 2019).

METHOD

With a sample size of fourteen, this study employs a one-group pretest-post-test design in a quasi-experimental study to investigate hypertension patients who report pain. The participants were collected with purposive technique. The participants in the study were hypertensive patients or people with blood pressure above normal who agreed to participate and who did not use medication during in 24 hour previously, and reported pain. Blood pressure and pain thresholds were evaluated on the samples both prior to and following the wet cupping technique. There were 5 (five) cupping points, 2 on the neck muscles, 1 on the nape of the neck, and 2 on both shoulders. The data result was analysed by Wilcoxon Signed Rank Test using IBM SPSS Statistics Version 26.

RESULTS AND DISCUSSION

Table 1
Demography Frequency of Participants (N=14)

Demography Data	N	%
Age (year)		
Middle age (45-59)	11	76
Elderly (60-74)	3	24
Gender		
Male	8	57
Female	6	43
Profession		
Housewife	5	36
Retired	2	14
Entrepreneur	3	22
Lecturer/Teacher	4	28

Table 1 Above showed that the majority of the sample was in the middle aged, male and housewife (76%, 57%, and 36%, respectively).

Table 2
Ranks of Systolic, Diastolic and Pain Before and After Wet Cupping

	N	Mean Rank	Sum of Ranks
Systolic After- Diastolic Before	Negative Ranks 11a	8.23	90.50
	Positive Ranks 3b	4.83	14.50

	Ties	0c		
	Total	14		
Diastolic After-Diastolic Before	Negative Ranks	9d	8.39	75.50
	Positive Ranks	4e	3.88	15.50
	Ties	1f		
	Total	14		
Pain After-Pain Before	Negative Ranks	14g	7.50	105.00
	Positive Ranks	0h	.00	.00
	Ties	0i		
	Total	14		

The systolic blood pressure, diastolic blood pressure, and pain Wilcoxon test scores were all negative (11, 9 and 14, respectively). This was an indication almost of the samples were reduction in diastolic, systolic, and pain levels following wet cupping therapy.

Table 3
The Wilcoxon Test of Systolic Blood Pressure, Diastolic Blood Pressure and Pain Before and After Wet Cupping

	Systolic Before - Systolic After	Diastolic Before - Diastolic After	Pain Before - Pain After
Z	-2.387b	-2.100b	-3.325b
Asymp. Sig. (2-tailed)	.017	.036	.001

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks

The statistical test results show that Asym.sign (2-tailed) is <0.05 (systolic blood pressure 0.017; diastolic blood pressure 0.036; pain 0.001). This shows that there was a statistical difference between systolic blood pressure, diastolic blood pressure and pain before and after wet cupping.

According to the study, wet cupping therapy significantly reduces discomfort, systolic and diastolic blood pressure. According to the statistical test, there was a significant change in pain, diastolic, and systolic blood pressure before and after the intervention ($p < 0,05$). The study's findings so demonstrated that wet cupping therapy successfully lowers blood pressure at both the systolic, diastolic, and pain levels.

This study supports the findings of Fadli and Fatmawati (2021), who found that wet cupping therapy effectively lowered the blood pressure of 21 elderly. Another study conducted by Fadli et al. (2021) found that blood pressure measurements taken after a 4-month follow-up period by 31 participants who used wet cupping showed a substantial change. Besides that, wet cupping decreased mean systolic blood pressure by 8.4 mmHg after 4 weeks of follow-up, according to a different study by Aleyeidi et al. (2015) in hypertensive patients. In Pain level, Wet cupping therapy has been shown by Apriza et al. (2023) to reduce discomfort in individuals with hypertension (Fadli & Fatmawati, 2021; Aleyeidi et al., 2015; Fadli et al., 2021; Apriza et al., 2023).

Because of its physiological effects, wet cupping therapy has been demonstrated to reduce both the systolic and diastolic blood pressure in hypertension patients as well as their pain. Wet cupping works by applying suction to the skin, which has the potential to boost general well-being, lower inflammation, improve blood circulation, and modify the immune system. It has been demonstrated that this treatment has systemic effects that help hypertensive people manage their blood pressure and experience less pain. Wet cupping's effectiveness in pain management has been further supported by reports that it can help treat chronic medical disorders and lower back pain. Wet cupping therapy can likely lower systolic and diastolic blood pressure and relieve discomfort in hypertension patients because it improves blood circulation, reduces inflammation, and triggers other physiological responses (Imaningtias et al., 2019; Fadli & Fatmawati, 2021; Fadli et al., 2021; Apriza et al., 2023; Jeni et al., 2023).

The potential benefits of cupping therapy include pain relief, relaxation, and improved blood circulation, which can be advantageous for hypertension patients who are in discomfort or are looking for non-pharmacological pain management solutions. A comprehensive approach to pain management and blood pressure monitoring is made possible by incorporating cupping therapy into the care plans of hypertensive patients. This also yields important data regarding the advantages and effects of the therapy for those who are managing their hypertension.

LIMITATION OF THE STUDY

The limited sample size, the sampling strategy, and the disregard for confounding variables are among the study's shortcomings. The results of this study might not therefore be applicable to a larger population.

CONCLUSIONS AND SUGGESTIONS

Wet Cupping therapy has shown an effect on reducing blood pressure, both systole and diastole, and pain around the neck and head which is generally felt by hypertension sufferers. To overcome the study's shortcomings, the following research should be Expand the sample size to improve statistical power and lessen the influence of confounding variables. Add extra variables, like cholesterol, that may have an impact on decreasing blood pressure and pain level. Choose the sample at random to get the best findings. Second, apply suitable sample techniques: More representative and varied sample strategies would guarantee that the results are more broadly applicable to the population

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ETHICAL CONSIDERATIONS

Samples from which the advantages and potential side effects of cupping were described were used in the study. Only the informed consent-signing sample is used in this investigation. Patient information was private and only researchers were aware of it.

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