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ORIGINAL RESEARCH PAIN MANAGEMENT

Wet cupping therapy is effective in alleviating general body fatigue

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ABSTRACT

Background & objectives: Fatigue is one of the most common complaints in the population and a normal response to physical exertion or stress, but can also be a sign of a physical disorder. Besides taking rest and massage therapy, various other modalities have been employed to combat severe or perpetual fatigue. This study aims to investigate the effectiveness of wet cupping therapy (WCT) in general body fatigue.

Methodology: We used a quasi-experimental design, a purposive sampling technique (non-probability) for sampling methods. A total of 50 participants from both genders were included. All participants were aged between 20 and 50 years and completed the questionnaire as a self-report measure. Data collection took place in multiple private nursing clinics, selected from different locations and during varied time intervals, to ensure broader coverage and accessibility. Individuals presenting with general body fatigue were identified and invited to report to clinical settings. Socio-demographic information, general health status, and score on a 10-point Fatigue Severity Scale (FSS), rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), were recorded and documented for each participant. Based upon these observations, the fatigue severity was classified as low or severe fatigue.

The study's aims and the intended procedures were clearly explained, and only those who voluntarily agreed to participate and fulfilled the inclusion criteria were enrolled in the final sample.

Results: WCT was effective in alleviating fatigue in the participants of this study. There was a highly significant difference between pre- and post-wet cupping, as the percentage of participants with low fatigue assessment fell from 38% to 74%, and in participants with severe fatigue, it decreased from 18% to 0%.

Conclusion: Wet cupping therapy has a statistically significant positive effect on reducing general fatigue among participants. The post-treatment assessments indicated a marked improvement in fatigue levels, highlighting the therapeutic potential of this traditional intervention in managing non-specific fatigue symptoms.

Abbreviations: CAM: complementary and alternative medicine, FSS**:** Fatigue Severity Scale, WCT: wet cupping therapy,

Keywords: General Fatigue; Hijama; Likert scale; Purposive sampling technique; Traditional Complementary Medicine; Wet Cupping Therapy

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1. INTRODUCTION

Fatigue is a personal perception of extreme tiredness that impairs their quality of life, physical and mental abilities, activity levels, and performance.[1] Fatigue accumulation, if not resolved, leads to chronic fatigue syndrome (CFS).[2] There are many different fatigue classification methods according to its duration; fatigue can be classified into acute fatigue and chronic fatigue. Acute fatigue can be quickly relieved by rest or lifestyle changes lead to a major challenge that threatens the physical and mental health of individuals, whereas chronic fatigue is a condition defined as a persistent tiredness lasting three months that is not ameliorated by rest.[1,3]

Fatigue can also be classified as mental fatigue, which refers to the cognitive or perceptual aspects of fatigue, and physical fatigue, which refers to the performance of the motor system. Psychological and behavioral factors also play a significant role in fatigue. Anxiety, depression, poor sleep quality, and lack of physical activity have all been consistently associated with increased fatigue severity.[4] The cyclical nature of fatigue, where exhaustion leads to reduced activity, which in turn contributes to further deconditioning, highlights the need for interdisciplinary treatment approaches.[5] As a multifactorial and intricate condition, fatigue has a wide range of underlying causes and significant effects on both personal well-being and public health. Its effective assessment and management require a comprehensive approach that incorporates biomedical, psychological, and social dimensions.[6] The significant burden of fatigue across diverse populations emphasizes the need for effective management strategies within public health systems.[7]

Cupping therapy is a major integral part of complementary and alternative medicine (CAM). It is described as a technique that involves a glass, plastic or bamboo cup to create localized pressure on the patient's skin over precise acupuncture points, painful area, or a reflex zone. To date, cupping therapy has been widely utilized and practiced in different cultures, like East Asia, the Middle East, and Central and Northern Europe.[8] Several techniques from traditional cupping, where skin incisions are made to allow blood and other body fluids to escape, to dry cupping and cupping massage, where no such incisions are made, are available. According to common theories, the effects of cupping may include increased microcirculation, tissue detoxification, and a subsequent relief of painful muscle tension and it is believed that many psychological modalities.[9,10]

Nurses play a vital role in the application of cupping therapy, particularly within integrative and complementary medicine settings. Their responsibilities include patient assessment, preparation for the procedure, procedure, monitoring for adverse reactions, ensuring infection control, providing education, and evaluating outcomes. Studies have emphasized that proper training and inclusion of cupping therapy within nursing education can significantly improve its safe and effective use in clinical practice.[11]

2. METHODOLOGY

A quasi-experimental design was used to investigate the relationship between wet cupping therapy (WCT)_and general fatigue. The researcher in the present study used informed consent to protect participant rights. Before beginning the study, the researcher obtains a formal agreement from the Medical Research Ethics Committee (MREC) for ethical study approval in compliance with the requirements for conducting human.

The Nursing Syndicate in Najaf was the designated site to obtain the necessary sample. The purposive sampling technique, which is a type of non-probability sampling method, was chosen in order to collect accurate and representative data, and 50 adults participated in a study. All individuals included in the study experience symptoms of fatigue and visit nursing clinics at varying frequencies to undergo cupping therapy. Some have previously received the therapy, while others are seeking it for the first time. The majority were motivated to pursue cupping based on recommendations from friends, aiming to improve their overall health status and alleviate the symptoms they were experiencing. The most commonly reported symptoms included tiredness, lightheadedness, sleep disturbances (insomnia or non-restorative sleep), inability to concentrate, lack of energy, headaches, and, in some cases, severe exhaustion. Fifty individuals were selected for the cupping therapy group based on specific

Adults aged between 20 and 50 years at the time of the study; individuals experiencing general fatigue symptoms such as chronic tiredness, lethargy, and poor concentration; participants who had either previously undergone cupping therapy or were seeking it for the first time; both males and females were included; all participants were of Arabic nationality; individuals were required to be cooperative, able to understand the study instructions, and willing to participate voluntarily. Participants with diagnosed psychiatric or neurological disorders, or those taking medications that could

Table 1: Demographic characteristics

Variables	Rating and Interval	n (%)
Age (years)	21-30	13 (26)
	31-40	13 (26)
	41-50	14 (28)
	>50	10 (20)
Gender	Male	33 (66)
	Female	17 (34)
Profession	Employer	25 (50)
	Free job	16 (32)
	House-Wife	7 (14)
	Jobless	2 (4)
Educational level	Illiteracy	4 (8)
	Primary school	9 (18)
	Intermediate school	7 (14)
	Tertiary school	7 (14)
	College	23 (46)
Residence	Urban	47 (94)
	Rural	3 (6)
Have you ever tried cupping therapy before?	Yes	29 (58)
	No	21 (42)
What motivated you to undergo cupping therapy?	Improving health condition	46 (92)
	Personal knowledge	4 (8)
Have you received any information about cupping therapy?	Medical knowledge	15 (30)
	From friend	29 (58)
	From Net work	6 (12)

interfere with fatigue symptoms, were excluded from the study.

1.1. Data Collection

The data in the current study consisted of three main parts.

Part I: Socio-demographic information of the participants undergoing cupping therapy consisted of five key items, and additional information related to accompanying individuals (when applicable) included three supplementary items.

Part II: General health status history comprising six objectives.

Part III: Fatigue Severity Scale (FSS), which includes 10 items, rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree), designed to assess the impact of fatigue on daily functioning.

Part IV: General responses after cupping therapy are composed of six items. This tool is suitable for adults and has been validated for distinguishing between normal fatigue levels and those related to chronic conditions.

3. RESULTS

The current study was conducted on 50 participants, with a mean age of 39.42 ± 10 years, ranging from 21 to >5 0years. The age group 41-50 years had the highest percentage 28%, while the age group >50 years had the lowest percentage 20% and most of them were males; 66% vs. 34%. 50% of the participants were employed, and 4% were jobless. The majority of participants, 94% were urban dwellers, and only 6% lived in rural areas.

Table 2: Responses of participants regarding general fatigue pre-wet cupping therapy (n = 50)

Response	Fatigue Severity Scale (FSS)			Evaluation
	Low	Moderate	Severe	
I feel fatigued	14 (28)	22 (44)	14 (28)	Moderate
I get tired very quickly	17 (34)	25 (50)	8 (16)	Moderate
I feel like I don't do much during the day	18 (36)	29 (58)	3 (6)	Moderate
I have enough energy for daily life	10 (20)	39 (78)	1 (2)	Moderate
I feel physically exhausted	16 (32)	28 (56)	6 (12)	Moderate
I have trouble stating tasks	18 (36)	29 (58)	3 (6)	Moderate
I have trouble thinking clearly	24 (48)	24 (48)	2 (4)	Moderate
I feel no desire to do anything	21 (42)	27 (54)	2 (4)	Moderate
I feel mentally exhausted	25 (50)	23 (46)	2 (4)	Moderate
When I do something, I cannot concentrate well	19 (38)	31 (62)	0 (0)	Moderate
Overall Assessment: 50 (Moderate); Data presented as n (%)				

Table 3: Responses of participants regarding general fatigue post-WCT

Response	Fatigue Severity Scale (FSS)			Evaluation
	Low	Moderate	Severe	
I feel fatigued	40 (80)	0	10 (20)	Low
I get tired very quickly	44 (88)	0	6 (12)	Low
I feel like I don't do much during the day	30 (60)	0 (0)	20 (40)	Moderate
I have enough energy for daily life	35 (70)	0 (0)	15 (30)	Low
I feel physically exhausted	40 (0)	0 (0)	10 (20)	Low
I have trouble stating tasks	34 (68)	0 (0)	16 (32)	Low
I have trouble thinking clearly	36 (72)	0 (0)	14 (28)	Low
I feel no desire to do any think	37 (74)	0 (0)	13 (26)	Low
I feel mentally exhausted	43 (86)	0 (0)	7 (14)	Low
when I do some think I can concentrate well	41(82)	0 (0)	9 (18)	Low
Overall Assessment: 50 (Moderate); Data presented as n (%)				

Table 4: Assessment of general fatigue pre- and post-WCT

Main Domain	Periods	FAS scale	Statistical Parameters		Paired Sample t-test df.=49	
			n (%)	Mean ± SD	t-value	P-value
General Fatigue Assessment (GFA)	Pre-Test	Low	19 (38)	3.026 ± 0.705	10.294	**0.000***
		Moderate	15 (30)			
		Severe	16 (18)			
		Total	50 (100)			
	Post-Test	Low	37 (74)	2.09 ± 0.406		
		Moderate	13 (26)			
		Severe	0 (0)			
		Total	50 (100)			
Low (Mean 1-1.66), Moderate (Mean 1.67-2.33), Severe (Mean 2.34-3); P < 0.05 is significant						

The percentage of participants who had used cupping therapy before this study was 58% for any cause. The motivation for cupping therapy to improve health conditions was 92% and personal knowledge was 8%, while 58% of them received information about cupping therapy from friends, and 12% from the internet.

Table 2 shows the responses of the participants about the assessment of general fatigue pre-WCT, where the overall assessment was moderate. The evaluation of all questions was moderate; regarding the evaluation of (enough energy for daily life) and (concentration when thinking) were the highest percentages (78% and 62%).

The responses of participants about the assessment of general fatigue post-WCT are given in Table 3. The overall assessment was low. Except that the evaluation regarding 'Don't do much during the day' question was moderate. Table 4 shows the responses of participants about their general fatigue. There is a highly significant difference between pre- and post-WCT responses, as the percentage of participants with low fatigue assessment increased from 38% to 74%. On the other hand, the percentage of participants with severe fatigue decreased from 18% to 0%.

Table 5 shows the association between participant's demographic data and fatigue assessment post-WCT. It was found that the relief in FSS was significantly associated with age and gender (P = 0.002, P = 0.015) respectively, while the remaining variables had no significant association with their socio-demographic characteristics.

4. DISCUSSION

The current study was conducted on a sample of 50 participants, with a mean age of 39.42 ± 10.94 years.

Table 5: Association between demographic data and fatigue assessment post-WCT

Demographic characteristics		Fatigue Severity Scale (FSS)			Total	P-value
		Low	Moderate	Severe		
Age (years)	21-30	13 (100)	0 (0)	0 (0)	13	0.002
	31-40	12 (92)	1 (8)	0 (0)	13	
	41-50	6 (43)	8 (57)	0 (0)	14	
	>50	6 (60)	4 (40)	0 (0)	10	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Gender	Male	28 (85)	5 (15)	0 (0)	33	0.015
	Female	9 (53)	8 (47)	0 (0)	17	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Profession	Employer	20 (80)	5 (20)	0 (0)	25	0.018
	Free job	14 (87.5)	2 (12.5)	0 (0)	16	
	House-Wife	2 (28.5)	5 (71.5)	0 (0)	7	
	Jobless	1 (50)	1 (50)	0 (0)	2	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Educational level	Illiteracy	3 (75)	1 (25)	0 (0)	4	0.078
	Primary school	6 (67)	3 (33)	0 (0)	9	
	Intermediate school	3 (43)	4 (57)	0 (0)	7	
	Tertiary school	4 (57)	3 (43)	0 (0)	7	
	College	21 (91)	2 (9)	0 (0)	23	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Residence	Urban	34 (72)	13 (28)	0 (0)	47	0.290
	Rural	3 (100)	0 (0)	0 (0)	3	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Have you ever tried cupping therapy before?	Yes	21 (72)	8 (28)	0 (0)	29	0.764
	No	16 (76)	5 (24)	0 (0)	21	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
What motivated you to undergo cupping therapy?	Improving health condition	33 (72)	13 (28)	0 (0)	46	0.216
	Personal knowledge	4 (100)	0 (0)	0 (0)	4	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	
Have you received any information about cupping therapy?	Medical knowledge	11 (73)	4 (27)	0 (0)	15	0.868
	From friend	20 (71.5)	8 (28.5)	0 (0)	28	
	From Internet	6 (86)	1 (14)	0 (0)	7	
Total		**37 (74)**	**13 (26)**	**0 (0)**	**50**	

**Significant difference between proportions using Pearson Chi-square test at 0.05 level.*

The majority of participants (28%) were within the 41–50 age group, while the smallest proportion (20%) was above 50 years. Experience with cupping therapy varied among participants; 58% had previously undergone the procedure, while 42% had not. The primary motivation for undergoing cupping therapy was to improve health status (92%), while 8% were driven by personal knowledge. Regarding sources of information, the majority of participants reported learning about cupping therapy from friends, whereas 12% received information via online networks. Participants' perceptions of general fatigue before receiving WCT

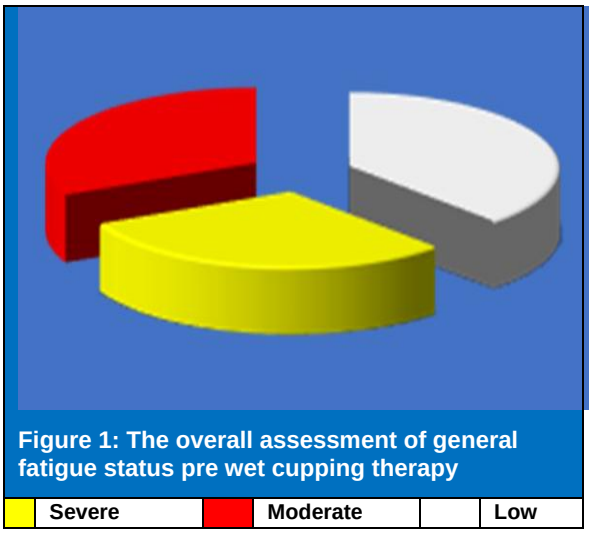

Figure 1: The overall assessment of general fatigue status pre wet cupping therapy

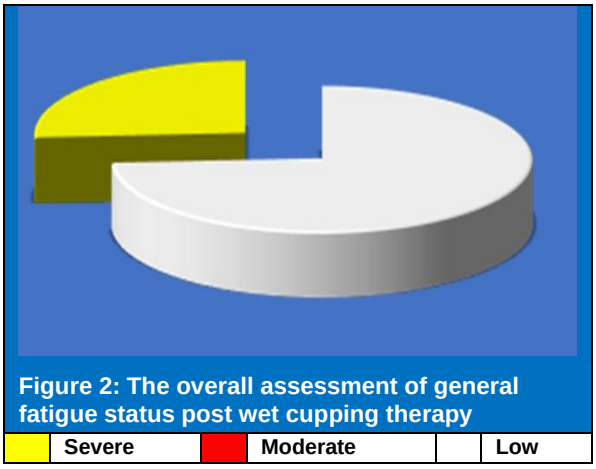

Figure 2: The overall assessment of general fatigue status post wet cupping therapy

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ndicated an overall moderate level. Most responses were evaluated as moderate, especially for items such as having enough energy for daily activities (78%) and the ability to concentrate (62%). Very few participants rated these symptoms as severe (2% and 0%, respectively). Following WCT, participants reported a general decrease in fatigue levels, with most responses shifting to a low fatigue assessment. The only exception was the item "not doing much during the day," which remained at a moderate level. A significant improvement was observed when comparing fatigue levels before and after the therapy: the percentage of participants reporting low fatigue increased from 38% to 74%, while those experiencing severe fatigue dropped from 18% to 0%. Finally, analysis of the association between demographic variables and post-therapy fatigue levels revealed a highly significant relationship with age (P = 0.002) and gender (P = 0.015). However, no significant associations were found with other socio-demographic factors.[11]

5. CONCLUSION

The findings of this study demonstrate that wet cupping therapy has a significant positive effect on reducing symptoms of general fatigue among adult participants. A marked improvement was observed in fatigue levels post-intervention, with a notable increase in the proportion of individuals reporting low fatigue and a complete elimination of severe fatigue. These outcomes suggest that wet cupping therapy can serve as an effective complementary approach in managing general fatigue, particularly among individuals seeking non-pharmacological interventions. These results support the integration of cupping therapy within nursing and holistic care practices, especially for populations experiencing chronic fatigue symptoms.

7. Data availability

The numerical data generated during this research is available with the authors.

8. Conflict of interest

All authors declare that there was no conflict of interest.

9. Funding

The study utilized the hospital resources only, and no external or industry funding was involved.

10. Authors' contribution

AMA: Study design and supervision, screening and eligibility assessment, quality assessment, review and editing of the manuscript. Final approval

MAF: Study design, systematic literature search, screening and eligibility assessment, writing the screening and eligibility assessment, review, and editing of the manuscript.

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