

## EFFICACY OF HIJAMAT BILA SHURT (DRY CUPPING) ON PAIN RELIEF IN PRIMARY DYSMENORRHEA

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### ABSTRACT

Usre Tams (Dysmenorrhea) is the most common of gynecologic complaints. It affects half of all female adolescents today and represents the leading cause of periodic college/school absenteeism among that population. Since ancient times, hijamat bila shurt (Dry cupping) is a method of treatment for this disease. Therefore, objective of this preliminary study was to evaluate the efficacy of hijamat bilas shurt on intensity of pain in Usre Tams by using verbal multi-dimensional scoring system. It was conducted from November 2011 to November 2012 on 40 patients in A&U Tibbia College Karol Bagh. Patients suffering from primary dysmenorrhoea with regular cycles, age group 15-40 years were selected. For dry cupping, six cups of medium size were applied around the umbilicus for 10 minutes on alternate days for two cycles and pain intensity was assessed by verbal multi-dimensional scoring system for pain before and after the treatment. Effect of cupping on pain during periods was reduced and was statistically significant. The Mean and Standard Error Mean for pain intensity before and after the treatment was 8.75 (1.06) and 3.45 (1.79) respectively with  $P < 0.001$ .

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### INTRODUCTION

Menstrual disorders are a common presentation by late adolescence, 75% of girls experience some problems associated with menstruation (1). Dysmenorrhea is a Common problem in women of reproductive age. Primary dysmenorrhea is defined as painful menses in women with normal pelvic anatomy usually begins during adolescence (2) and it occur about 50% of menstruating females (3). It is unusual for symptoms to start within first six months after menarche. Affected women experience sharp, intermittent spasm of pain usually concentrated in the supra pubic area. Pain may radiate to the back of the legs or the lower back. Systemic symptoms of nausea, vomiting, diarrhea, fatigue, mild fever and headache or lightheadedness are fairly common. Pain usually develops within hours of the start of the menstruation and peaks as the flow becomes heaviest during the first day or two of the cycle. It is usually possible to differentiate dysmenorrhea from premenstrual syndrome (PMS) based on patient history. The pain associated with PMS is generally related to breast tenderness and abdominal bloating rather than a lower abdominal cramping pain. PMS symptoms begin before the menstrual cycle and resolve shortly after menstrual flow begins (4). Dysmenorrhea is the

most common gynecologic disorder among female adolescents, with a prevalence of 60% to 93% (5-6). In the United States, dysmenorrhea is the leading cause of recurrent short-term school absenteeism (7). Several studies have shown that adolescents with dysmenorrhea report that it affects their academic performance, social and sports activities (8). The prevalence of primary dysmenorrhea decreases with increasing age: prevalence is highest in the 20- to 24-year-old age group and decreases progressively thereafter (9). There appears to be no relationship with parity when age is factored in. Dysmenorrhea is increased with smoking (10). Primary dysmenorrhea occurs only during ovulatory cycles (11). Limited studies have suggested a decline in dysmenorrhea with physical exercises, but critical analysis and other studies do not support any evidence-based relationship between exercise and primary dysmenorrhea (12). One reason that has been suggested as an explanation for primary dysmenorrhea is an increased production of uterine prostaglandins derived from cyclooxygenase (COX)-2 activities (13,14). Studies have shown that an inhibition of prostaglandin synthesis occurs through inhibition of COX-2 that could be exerted by

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nonspecific non steroidal anti inflammatory drugs (NSAIDs). These drugs have useful effects such as anti-inflammatory, antipyretic and analgesic (15, 16). Moreover studies have indicated that the conventional treatment for primary dysmenorrhea has a failure rate of 20% to 25% (17). These procedures may be contradictory or not tolerated by some women with primary dysmenorrhea (18). Given the contraindications and side effects of NSAIDs as well as their limited efficacy, an investigation of alternative treatments with low toxicity such as herbal products is warranted. The risk factors for dysmenorrhea are; age<20 years, nulliparity, heavy menstrual flow,smoking, high/upper socioeconomic status; attempts to lose weight, physical activity,disruption of social networks, depression and anxiety (19). But several observational studies have found controversial results. In Unani system of medicine dysmenorrhea is described under the heading of *Usre Tams* .According to Hippocrate *usre tams* occurs due to stagnation of menstrual blood secondary to cervical obstruction and causes painful menstrual period (20). According to shaikhur Rayees Abu Ali Husain bin Abdullaha bin Sina *Usre Tams* occurs due to obstruction in the menstrual blood flow. He also described that if the menstrual blood is balanced in quality and quantity, the cycle is regular. If the menstruation is irregular and abnormal, it may cause many diseases like amenorrhea and oligomenorrhea.He also mentioned that Wajuz Zuhar occur due to involvement of uterus just before menstruation (22). In classical Unani literature hijamat bila sharat (dry cupping) over the umbilicus has been used to relieve the colic pain of gaseous distension and the menstural pain( 23). With this preview this syudy was conducted to assess role of *Hijamah Bila Shurat* (Dry Cupping) in management of *Usr-e-Tams*(Dysmenorrheaa).

### MATERIAL AND METHODS

A cross sectional study was conducted on 40 eligible women to assess effect of dry cupping in dysmenorrhoea. The inclusion criteria were women aged between 15- 40 years of age, no history of hormonal disorders and willing to participate in the study. Those having any metabolic disorder or hormonal abnormalities or any systemic disease were excluded from the study. After taking informed consent of the patient , the complete history and examination of the patient was taken using a interview schedule which was divided into three parts .First part comprised demographic data of the participants. Second part comprised history and examination of the participants and pain during menstruation was assess by verbal analogue scale of pain (1-10 point 10 being the most severe pain). Third part comprised of the dry cupping site and effect of dry cupping on pain. One menstrual cycle was taken as one treatment course, and two courses of treatments were given. The data was analysed 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.

### OBSERVATION AND RESULTS

A cross-sectional study was conducted on 40 eligible women to assess effect of dry cupping in dysmenorrhea. The observations and results are as under: Majority of the patients were below 25 years (57%) {Table,Figure1}.

Majority of the participants were from middle class {Table,Figure 2}. Majority of the participants were 10+2 educated (84.5%) {Table, Figure 3}. Majority of the participants had positive family history of dysmenorrhoea {Table,Figure 4}. All participants had positive history of pain in hypogastric region (100%) followed by pain in thigh (63.5%) {Table,Figure 5}. Intensity of pain in dysmenorrhoea was more in Balghami Mizaj (75%){Table,Figure 6}.Intensity of pain in dysmenorrhea was more in participants with high school education and was stastically significant.  $\chi^2 = 7.6$  at D.F 1,C.I 95% {Table 7}. It means that education status is related to dysmenorrhoea. Intensity of pain in dysmenorrhea was more in participants in the age group of 15-25 years and was stastically significant  $\chi^2= 5.05$  at D.F 1,C.I 95% {Table 8} which can be attributed to the fact that at the age of menarche hormonal disturbances may be a contributory factor for dysmenorrhea. Intensity of pain in dymenorrhea was more in participants with Balghami Temperament and it was found stastically significant  $\chi^2 = 3.5$  at D.F 1,C.I 95% {Table 9} . Effect of cupping on pain during periods was reduced and was stastically significant. The Mean and Standard Error Mean for pain intensity before and after the treatment was 8.75 (1.06) and 3.45 (1.79) respectively with  $P<0.001$ . The table 9 & 10 show that there is a statistically significance difference in Pain Visual Analogue Scale in dysmenorrhea before and after Cupping Therapy;  $p \leq 0.05$  in all outcome measures.  $T=5.89$  d.f 39 at P value .001 which is considered sigificant.

Table 1 :Distribution of participants according to age

Age group	Total	Percentage
15-25 years	23	57.5
25-35 years	14	35
Above 35 yrs	3	8.57

Inference : Majority of the patients were below 25 years (57%).

Figure 1: Age wise distribution of participants

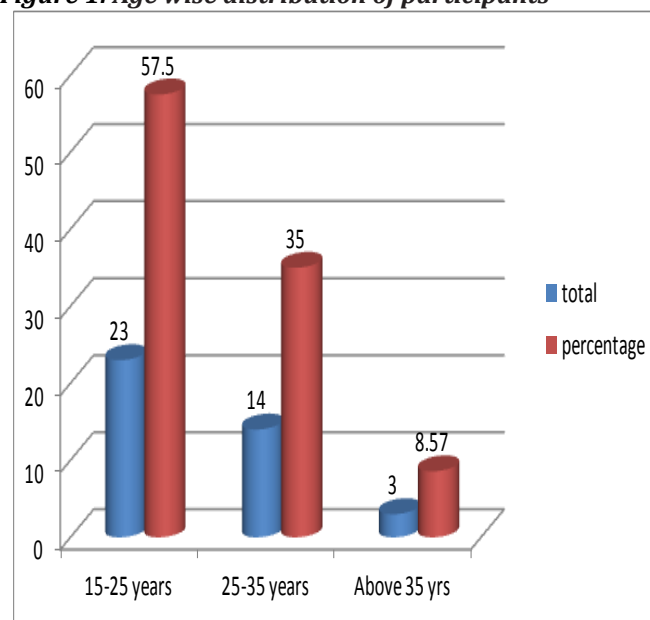


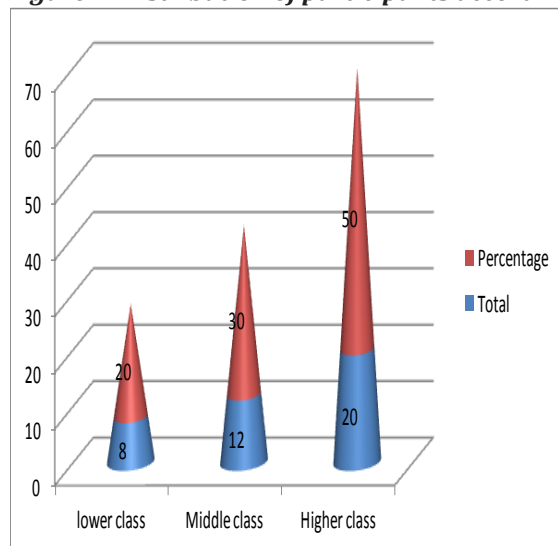
Table 2: Distribution of participants according to SES

SES	Total	Percentage
lower class	10	25%
Middle class	22	55%
Higher class	8	20%
Total	40	100%

Inference: Majority of the participants were from middle class.

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**Figure 2: Distribution of participants according to SES**

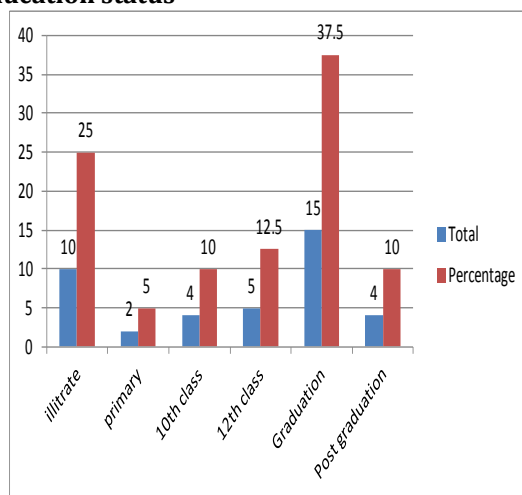


**Table 3: Distribution of patients according to their education status**

Education status	Total	Percentage
illiterate	3	7.5%
Primary	8	20%
10th class	11	27.5%
12th class	12	30%
Graduation	4	10%
Post graduation	2	5%
<b>Total</b>	<b>40</b>	<b>100%</b>

**Inference:** Majority of the participants were from 10+2 educated (84.5%)

**Figure 3 : Distribution of patients according to their education status**



**Table 4 : Distribution of patients according to their family history**

Family History	Total	percentage
positive	30	75%
Negative	10	25%
<b>Total</b>	<b>40</b>	<b>100%</b>

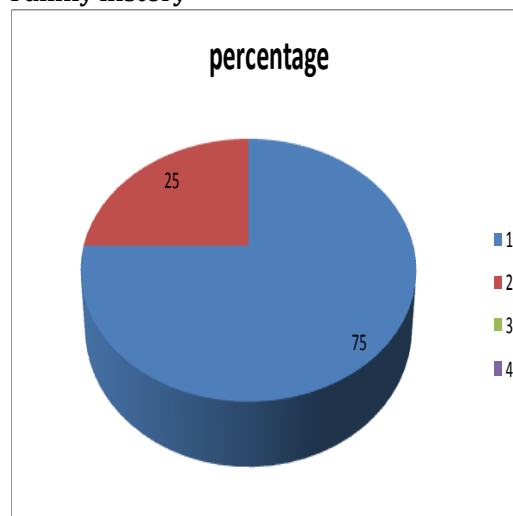
**Inference:** Majority of the had positive history of dysmenorrhea(75%).

**Table 5: Distribution of patients according to their symptoms N=40**

Symptoms	Total	percentage
Pain in hypogastric	40	100%
pain in thigh	25	62.5%
LBA	10	25%
headache	3	7.5%
vomiting	2	5%

**Inference:** All participants had positive history of pain in hypogastric region (100%) followed by pain in thigh (63.5%).

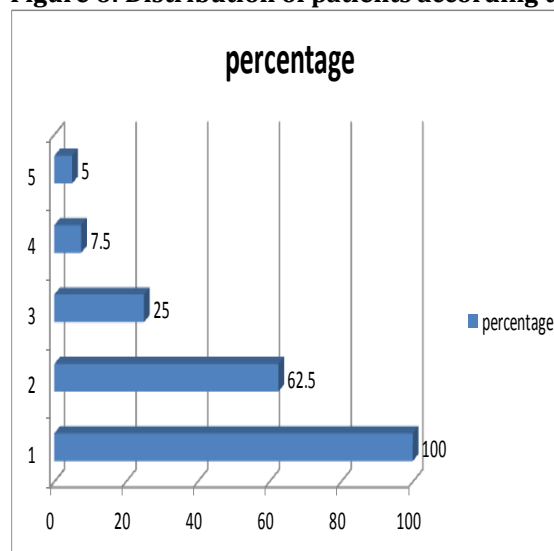
**Figure 4: Distribution of patients according to their Family history**



**Table 6: Distribution of patients according to their Mizaj**

Mizaj	Total	percentage
Damavi	6	15%
Balghami	30	75%
Safravi	2	5%
Saudavi	2	5%

**Figure 6: Distribution of patients according to their Mizaj**



**Inference:** Intensity of pain in dysmenorrhea was more in Balghami Mizaj (75%).

**Table 7: Analysis of Severe dysmenorrhea with Education N=40**

Education status	Mild	severe	Total
Below 10 <sup>th</sup> class	08	03	11
Above 10 <sup>th</sup> class	08	21	29
<b>Total</b>	<b>16</b>	<b>23</b>	<b>40</b>

$\chi^2 = 7.6$  at D.F 1, C.I 95%

**Inference:** Intensity of pain in dysmenorrhea was more in participants with high school education and was stastically significant.

**Table 8: Analysis of intensity of pain in dysmenorrhea with Age**

SES	Mild	severe	Total
lower class	03	07	10
Middle class	12	18	30
<b>Total</b>	<b>15</b>	<b>25</b>	<b>40</b>

$\chi^2 = 5.05$  at D.F 1, C.I 95%

**Inference:** Intensity of pain in dysmenorrhea was more in participants in the age group of 15-25 years and was stastically significant

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Table 9 : Analysis of intensity of pain in dysmenorrhea with SES

Age group	mild	severe	Total
15-25 years	05	18	13
25-35 years	08	09	17
<b>total</b>	13	27	40

Table 9: Analysis of intensity of pain in dysmenorrhea with Mizaj N=40

Mizaj	Mild	severe	Total
Balghami	08	22	30
Non Balghami	06	04	10
<b>Total</b>	14	26	40

$\chi^2 = 3.5$  at D.F 1,C.I 95%

Inference: Intensity of pain in dysmenorrhea was more in participants with Balghami Temperament and it was found stastically significant.

Table 9: Effectiveness of cupping on pain

	Mean	S.D	T Test
Pain (VAS) before cupping	8.75	1.06	
Pain (VAS) after cupping during periods	3.45	1.79	
Paired T.Test value 5.89 at d.f 39 and P value .001			

Table 10:VAS Before and after cupping in dysmenorrhea

Before Treatment	After treatment
0	1
10	5
10	5
8	4
8	3
8	4
8	4
8	3
8	2
8	1
8	3
8	2
10	3
10	4
10	5
10	6
10	6
10	6
10	7
10	4
10	3
8	2
8	6
8	7
9	5
7	2
5	1
10	3
9	5
9	2
9	2
9	1
9	3
9	2
9	2
9	1
9	2
9	2
9	2

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