

## Tradition Practices Self Reported by Nursing Students to Relieve Dysmenorrhea

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### Abstract

**Introduction:** Child The study aimed to assess traditional practices self-reported by nursing students to relieve dysmenorrhea. **The study design** was descriptive design. **Setting:** the study was conducted in nursing technical secondary school at Benha university hospital. **Sampling:** purposive sample that consisted of 150 students suffered from dysmenorrhea in the three years of the nursing secondary school. **Tools of data collection:** structured interviewing questionnaire, knowledge assessment sheet and assessment of used traditional practices by nursing students. **Results:** 64.7% of the studied sample had unsatisfactory knowledge about dysmenorrhea, 37.1% of studied students always used many of traditional practices to relieve dysmenorrhea and 44% of studied sample satisfied with traditional practices used for menstrual pain relief. **Conclusion:** Less than two thirds of the studied students always used many of traditional practices to relieve dysmenorrhea. The most common traditional method was drinking natural herbs followed by taking a warm bath and massaging the abdomen as reported by females. **Recommendations:** Encouraging the student females to use traditional methods in the first days of menses for relieving dysmenorrhea.

**Key words:** Dysmenorrhea, traditional practices, nursing students.

### Introduction

Dysmenorrhea is defined as a severe, painful, cramping sensation in the lower abdomen that is often accompanied by other symptoms, such as sweating, headaches, nausea, vomiting, diarrhea, and tremulousness, all occurring just before or during the menses (Lentz *et al.*, 2013). There are two types of dysmenorrhea; primary dysmenorrhea refers to pain with no obvious pathological pelvic disease and almost

always first occurs in females 20 years or younger after their ovulatory cycles become established. The second type is secondary dysmenorrhea is caused by underlying pelvic conditions or pathology and is more common in females older than 20 years (Mickinney *et al.*, 2013).

Dysmenorrhea has different detrimental effects on females and the community. For instance, school and work absenteeism, interference with daily living activities. Mean while, limitation in socialization, and higher intake of sedative medications are positively

associated with the higher prevalence and intensity of dysmenorrhea (*Pitangui et al., 2013*).

Prevalence of dysmenorrhea vary between 50% and 90%. Dysmenorrhea results from the withdrawal of progesterone near the end of a menstrual cycle this withdrawal has been shown to increase the synthesis of prostaglandins F<sub>2</sub> (PGF<sub>2</sub>) and E<sub>2</sub> (PGE<sub>2</sub>). Current evidences suggest that, prostaglandins are released during menstruation due to endometrial cells destruction. PGE<sub>2</sub> stimulates uterine contractions, cervical narrowing and increases vasopressin release, which leads to ischemia and pain (*Liu et al., 2013*).

There are two types of treatment for managing dysmenorrhea: pharmacological and non-pharmacological. pharmacological treatment consists of non-steroidal anti-inflammatory drugs (NSAIDs) and oral contraceptives. NSAIDs inhibit prostaglandin synthesis and are usually considered the first line of treatment. These include aspirin, ibuprofen, and naproxen (*Rice and Bolick, 2012*). Non-pharmacological treatment as acupuncture, transcutaneous electrical stimulation, hypnosis and heat patches (*Hacker et al., 2016*).

Traditional medicine practices are the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in maintenance of health. The terms "complementary medicine" or "alternative medicine" are used interchangeably with traditional medicine in some countries. Traditional medicine practices are referred to a broad set of health care practices that are not part of that country's tradition and are not integrated into the dominant health care system. There are many traditional

practices such as the use of (herbal medicine, acupressure, yoga, acupuncture, aromatherapy, chiropractic medicine, massage, hydrotherapy and nutritional therapy (*WHO, 2013*).

Nurses can offer more than one alternative for alleviating menstrual discomfort and dysmenorrhea, giving females options to try and decide which works best for them. Heat (heating pad or hot bath) minimizes cramping by increasing vasodilatation and muscle relaxation and minimizing uterine ischemia. Massaging the lower back can reduce pain by relaxing par vertebral muscles and increasing pelvic blood supply. Soft, rhythmic rubbing of the abdomen may be useful because it provides distraction and an alternative focal point. Biofeedback, transcutaneous electrical nerve stimulation, progressive relaxation, Hatha yoga, acupuncture, and meditation also have been used to decrease menstrual discomfort although there is insufficient evidence to determine effectiveness (*Lowdermilk, 2013*).

#### **Significance of the study:**

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Dysmenorrhea is the most common gynecological complain that interfere with daily living activities. The prevalence of dysmenorrhea among adolescent females ranges from 50 to 90 percent. Many adolescents reported limitation on daily activities, such as missing school, sporting events, and other social activities, due to dysmenorrhea. However, only 15 percent of females seek medical advice for menstrual pain, signifying the importance of screening all adolescent females for dysmenorrhea (*Chantay, 2012*). There are two types of treatment for managing dysmenorrhea pharmacological and non-pharmacological. Despite the wide range of pharmacological treatment and its effect on pain relief, pain relief may be

inadequate for some females, or side effects may not be well tolerated so many females seek to traditional practices to relieve menstrual pain (Zhu *et al.*, 2015). So, this study was conducted to assess traditional practices self-reported by nursing students to relieve dysmenorrhea.

### **Aim of the study:**

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This study aimed to assess traditional practices self reported by nursing students to relieve dysmenorrhea.

### **Research question:**

What are traditional practices used by nursing students to relieve dysmenorrhea?

### **Subjects and method:**

### **Research design:**

A descriptive design was utilized to fulfill the aim of this study.

### **Setting:**

The study was conducted in nursing technical secondary school at Benha University Hospital.

### **Sample:**

**Type of sample:** purposive sample.

**Size of sample:** 150 female students with dysmenorrhea from the pre mentioned setting divided into 28 from first year, 42 from second year and 80 from third year were involved in the study sample during three months of data collection. The sample was selected according to inclusion criteria:

- Suffering from dysmenorrhea.

- Age from 15-18 years.
- Single female.
- Free from medical and gynecological problems.

### **Tools of data collection:**

Three tools were used for data collection.

### **Tool (I): A structured interviewing sheet: (Appendix I):**

This tool was designed by the researcher after reviewing the related literature. It was designed in an Arabic language and consisted of two parts:

**Part (1):** Student's general characteristics included age, academic year, residence, mother's educational level and mother's occupation.

**Part (2):** Menstrual characteristics data for student as age of menarche, duration, regularity, menstrual flow, interval of menstruation, amount of blood loss, number of used pads, degree of pad saturation, blood descend, type of used pads, presence of menstrual pain, time of pain occurrence, nature of pain, duration of pain and site of pain.

### **Tool (II): Knowledge assessment sheet: (Appendix II):**

This tool was designed by the researcher after reviewing the related literature (Baghianimoghadam *et al.*, 2012 and Fetohy, 2011). It was designed in an Arabic language in the form of closed questions. It consisted of two parts:

**Part (1):** Sources of information regarding dysmenorrhea.

**Part (2):** Student's knowledge regarding dysmenorrhea and traditional practices that used for dysmenorrhea as definition, types, causes, contributing factors, physical symptoms, psychological symptoms, complications and treatment of dysmenorrhea.

*Scoring system of student's knowledge:*

- The total number of questions was 8 questions.
- Each item was scored as:
- Score (3) was given for completely correct answer.
- Score (2) was given for incompletely correct answer.
- Score (1) score for don't know or incorrect answer. The total scores of knowledge ranged from 0-24 scores.

Total knowledge score was categorized as the following:

- Satisfactory knowledge  $\geq$  60% of total knowledge score.
- Unsatisfactory knowledge  $<$  60% of total knowledge score

*Tool (III): Assessment of used traditional practices by nursing student(Appendix III):*

This tool was designed by the researcher after reviewing the related literature (*Yeh et al., 2013 and Rahnama et al., 2012*). It was designed in an Arabic language in the form of closed and open questions. It consisted of two parts:

**Part(1):** Student's traditional practices reported by students as (exercise, drinking herbal remedies, hot

compresses on the abdomen, warm bath, complete comfort, specified diet, analgesics, abdominal massage, using natural oils on pain site, avoiding tea and coffee, sleeping on one side and going to doctor), duration and effect on pain relieve of used traditional practices.

*Scoring system of student's practices:*

- The total number of items was 14 items.
- Each item was scored as:
- Score (3) was given for always answer.
- Score (2) was given for sometimes answer.
- Score (1) score for never answer.

Total practice score was categorized as the following:

- Satisfactory practice  $\geq$  60% of total practice score.
- Unsatisfactory practice  $<$  60% of total practice score

**Part (2):** Student's satisfaction degree toward the used practices.

*Scoring system of student's satisfaction:*

- Score (3) was given for satisfied answer.
- Score (2) was given for uncertain answer.
- Score (1) score for unsatisfied answer.

Total scoring for satisfaction was categorized as the following:

- Score < 50% referred to unsatisfied degree.
- Score from  $50 \leq 75\%$  referred to uncertain degree.
- Score from  $75 < 100\%$  referred to satisfied degree.

**Content validity:**

The tools were developed by the researcher after reviewing the relevant literature and tested for its content validity by a jury of three expertises in the obstetrics and woman health nursing field.

**Ethical considerations:**

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Ethical aspect was considered before starting the study that included the following:

- Each female was informed about the purpose and benefits of the study at the beginning of interview and time throughout the study
- An oral consent was obtained from the students after explanation the purpose of the study to gain confidence with the study.
- Trust and confidentiality were maintained, that data collected was used for the purpose of the research only and dignity of the subject was respected.
- There was no harm for the participants.
- Tools of the study didn't against the women traditions and religious.

- Each participant student had the right of freedom to withdrawal from participation at any time.

**Pilot study:**

A pilot study was carried out for 10% of participants (15 female students) who met the criteria of selection to evaluate the applicability and clarity of tools used for data collection as well as estimation of the time needed for each subject to fill in questionnaire. No modifications were done. The students included in the pilot study were not excluded from the main studied sample.

**Field work:**

The field work of the current study was carried out from the end of February 2016 and completed at the end of May 2016 covered three months. The study setting was visited three days/week (Sunday, Monday and Tuesday) from 9.00 a. m to 1.00 p.m. At the beginning of interview the researcher greeted the nursing student, introduced herself to each student included in the study, explained the purpose of the study, took oral consent from students and ethical consideration was taken during the study, assessed whether the student have dysmenorrhea or not that took 10 minutes. Then, filled the first tool interviewing questionnaire sheet used to assess the general characteristics and menstrual characteristics. This assessment took 20 minutes. The second tool knowledge assessment sheet. This assessment took 15 minutes. The third tool was assessment of traditional practices used by the nursing students. This assessment took 15 minutes. All questions sheets took 60 minutes. Average students per day were 3-5 students.

### III- Administrative Design:

An official letter was sent from the dean of Faculty of Nursing at Benha University to the director of the nursing technical secondary school at Benha University hospital explaining the aim of the study and time of data collection and official permission was obtained for data collection.

### IV- Statistical Design:

Data was verified prior to computerized entry. The statistical package for science (SPSS version 20) was used for that purpose, followed by data tabulation and analysis. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Test of significance (chi-square and Pearson correlation test) were used. Significant level value was considered when  $P \leq 0.05$ , no significant level was considered when  $P \geq 0.05$  and a highly significant level value was considered when  $P \leq 0.001$ .

### Limitations of the study:

Difficulty to gather the students at the same time because of different times for lectures schedule and clinical work.

### Result:

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**Table (1)** shows that less than three quarters of studied sample (72%) aged from  $17 \leq 18$  years and more than half of studied sample (53.3%) was in third year. In addition, (64%) of the studied sample lived in rural area and mothers were housewives. Moreover, less than two thirds of studied sample (60.7%) mother's education was secondary education.

**Table (2):** reveals that more than half of studied sample (56%) their age of

menarche was 13-14 years. More than three quarters of them (76%) menstrual cycle duration was 3-5 days and its mean was  $4.7 \pm 1.3$ . Moreover, less than two thirds of them (64%) had interval of menstruation was 28-30 days. More than three quarters of studied sample (82%) had moderate amount of blood loss. In addition, (68%) of them used two pads and (60%) had un continuous blood descend. The majority of the studied sample (94%) used sanitary pads.

**Table (3):** Indicates that, more than two thirds (77.3%) of studied sample had information about dysmenorrhea. In addition, less than half of studied sample (43.1%) their source of information about dysmenorrhea was mothers.

**Table (4):** Shows that the most common (42.7%, 73.3%, 62%, 54%, 62%, 52% and 54.7%) of studied sample always use exercises, drink natural herbs, take a warm bath, have full comfort, massage of the abdomen, use of certain oils to paint the place of pain (lavender) andraise the legs during sleep put a little cushion underneath to relieve menstrual pain respectively. On the other hand, the highest percent (76%, 64%, 84%, 64%, 78% and 70%) of students sometimes use warm compresses, don't shower in these days, take painkillers, refrain from drinking tea and coffee, sleep on one side with knees bent and resort to the doctor for pain relief respectively.

**Table (5):** Shows that, there was highly statistically significance relation between degree of dysmenorrhea of the students and daily activities.

**Table (6):** Indicates that, there was highly statistically significance correlation between total Knowledge level of the students and their total practical level.

**Figure (1):** Shows that two thirds of studied sample (70%) had regular menstrual cycle, while one third (30%) of them had irregular menstrual cycle.

**Figure (2):** Indicates that less than two thirds (64.7%) of the studied sample had unsatisfactory knowledge about dysmenorrhea, while more than one third

(35.3%) them had satisfactory knowledge.

**Figure (3):** Shows that, 44% of studied sample satisfied with traditional practices used for menstrual pain relief. On the other hand 8.7% of studied sample unsatisfied with traditional practices used for menstrual pain relief.

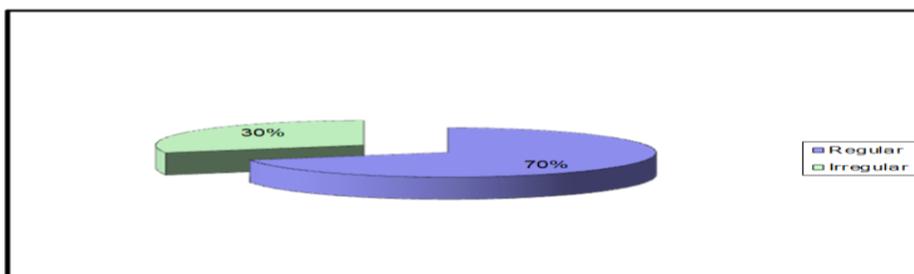
**Table (1): Distribution of the studied students according to socio demographic characteristics (n= 150).**

Socio demographic characteristics	No	%
<b>Age (years):</b>		
15<17	42	28.0
17≤18	108	72.0
<b>Mean ± SD</b>	16.6 ± 0.6	
<b>Academic years</b>		
First	28	18.7
Second	42	28.0
Third	80	53.3
<b>Residence:</b>		
Rural	96	64.0
Urban	54	36.0
<b>Mother's educational level</b>		
Illiterate	5	3.3
Read and write	18	12.0
Basic education.	12	8.0
Secondary education	91	60.7
University education	24	16.0
<b>Mother's occupation</b>		
Working	54	36.0
Housewife	96	64.0

**Table (2): Distribution of the studied students according to the menstrual history (n= 150).**

<b>Menstrual history</b>	<b>No</b>	<b>%</b>
<b>Age at menarche(years)</b>		
11<13	39	26.0
13<14	84	56.0
15≤16	27	18.0
<b>Mean± SD</b>	13.3±1.3	
<b>Duration of menstrual cycle (days)</b>		
3-5	114	76.0
6-8	36	24.0
<b>Mean± SD</b>	4.7±1.3	
<b>Interval of menstruation (days)</b>		
< 28	39	26.0
28-30	96	64.0
> 30	15	10.0
<b>Mean± SD</b>	28.1±2.6	
<b>Amount of blood loss:</b>		
Mild	9	6.0
Moderate	123	82.0
Severe	18	12.0
<b>Number of used pads:</b>		
1	3	2.0
2	102	68.0
3	42	28.0
>3	3	2.0
<b>Blood descend:</b>		
Un continuous	90	60.0
Continuous	60	40.0
<b>Pads used during menstruation:</b>		
Sanitary pad	141	94.0
Clothes pad	6	4.0
Medical cotton	3	2.0

**Figure (1):** Distribution of studied students according to regularity of menstrual cycle



**Table (3):** Distribution of the studied students according to source of information about dysmenorrhea (n= 150).

Items	No	%
<b>Information about dysmenorrhea:</b>		
Yes	116	77.3
No	34	22.7
<b>Source of information (n=116)</b>		
Mothers	50	43.1
Sister	10	8.6
Friends, relatives	20	17.2
Study	23	19.8
TV	13	11.2

**Figure (2):** Distribution of the studied students according to their total level of knowledge about dysmenorrhea (n= 150).

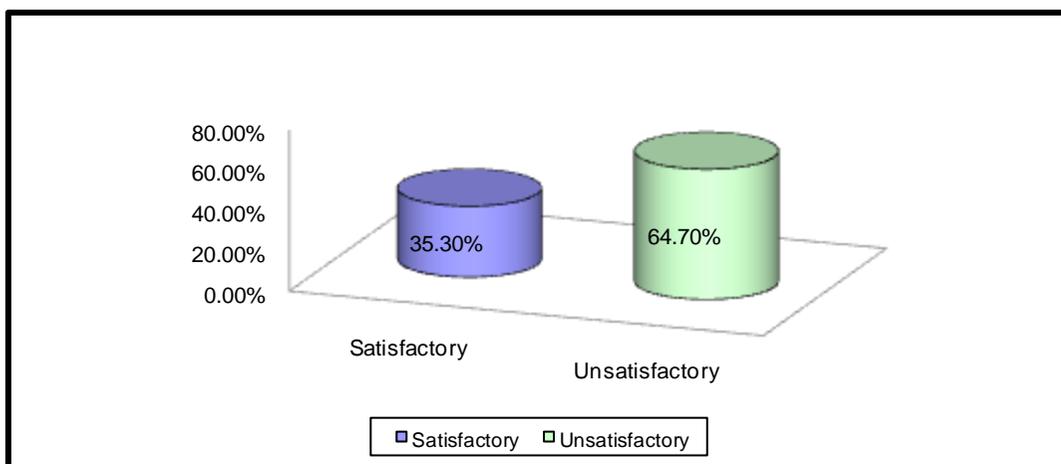


Table (4): Distribution of the students according to reported practices to relieve dysmenorrhea (n= 150).

Traditional practice to alleviate of menstrual pain	Always		Sometimes		Never	
	No	%	No	%	No	%
Exercise	64	42.7	56	37.3	30	20.0
Drinking natural herbs (mint - forget - the ring)	110	73.3	16	10.7	24	16.0
Use warm compresses on the abdomen	18	12.0	114	76.0	18	12.0
Taking a warm bath	93	62.0	45	30.0	12	8.0
No shower during menstrual period.	39	26.0	96	64.0	15	10.0
Full comfort	81	54.0	66	44.0	3	2.0
A specific diet	54	36.0	72	48.0	24	16.0
Taking analgesic	21	14.0	126	84.0	3	2.0
Massage of the abdomen	93	62.0	39	26.0	18	12.0
The use of certain oils to paint the place of pain (lavender)	78	52.0	60	40.0	12	8.0
Refrain from drinking tea and coffee	30	20.0	96	64.0	24	16.0
Sleeping on one side with knees bent	24	16.0	117	78.0	9	6.0
Raise the legs during sleep put a little cushion underneath	82	54.7	55	36.6	13	8.7
Resorting to the doctor for pain relief	27	18.0	105	70.0	18	12.0

Figure (3): Distribution of the student's satisfaction regarding reported practices used for menstrual pain relief (n= 150).

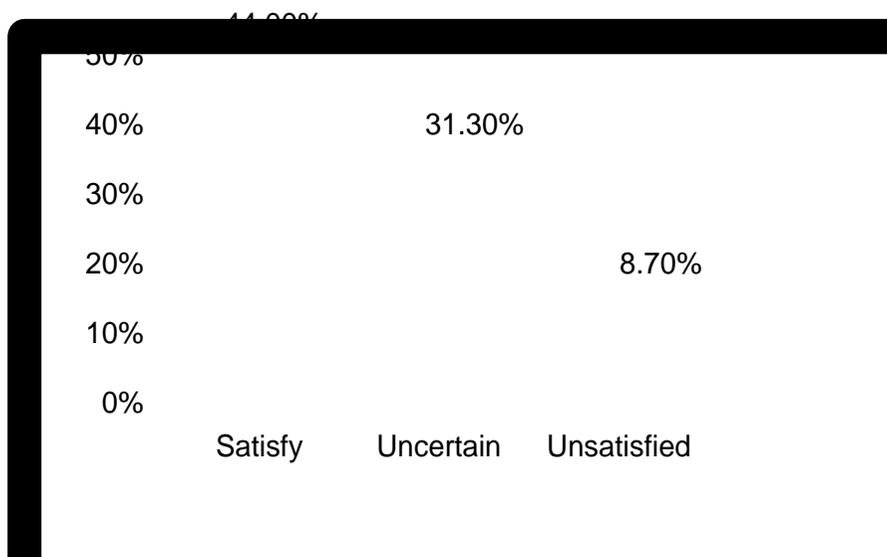


Table (5):Relation between degree of dysmenorrhea of the students and daily activities (n=150).

Daily activities	Degree of dysmenorrhea						X <sup>2</sup>	P-value
	Mild n=14		Moderate n=121		Severe n=15			
<b>Attendance at school:</b>							24.3	0.001**
Absent from school	2	14.3	29	24.0	11	73.3		
Present	12	85.7	92	76.0	4	26.7		
<b>Degree of activities</b>							28.2	0.001**
Mild	9	64.3	58	47.9	0	0.0		
Moderate	4	28.6	47	38.8	3	20.0		
High	1	7.1	16	13.2	12	80.0		

\*\*Highly Statistical significance at (p < 0.001)

**Table (6): Correlation coefficient between total knowledge and total practice of studied students (n=150).**

Variable	Total knowledge score	
	r	P
<b>Total practice score</b>	0.624	0.001**

\*\*Highly Statistical significance at (p < 0.001)

**Discussion:**

Regarding characteristics of students, the findings of the present study revealed that less than three quarters of studied sample were 17≤18 years with mean age 16.6±0.6 years. This finding was relatively in agreement with *Unsal et al. (2010)* who conducted a study about the prevalence of dysmenorrhea and its effect on quality of life among a group of female university students and showed that the mean age of sample was 17.6 ± 0.8 years. This finding was in the same line with *Abedian et al. (2011)* who conducted a study on the effects of peer education on health behaviors in girls with dysmenorrhea and showed that the mean age of students was 19.86 ± 1.52 years.

The findings of the present study showed that more than half of the studied sample were in 3<sup>rd</sup> year, this finding was supported by *Chang and Chaung (2012)*, who conducted a study on factors that affect self-care behavior of females high school students with dysmenorrhea and mentioned that, the highest percent (34.3%) of the studied sample in third year had dysmenorrhea. This finding wasn't in line with *Ellassy and Median (2013)*, who conducted a study on impact of health educational program on menstrual beliefs and practices of adolescent Egyptian girls at secondary technical nursing school and reported that the highest percent (39.2%) of the studied sample in second year. This difference in results may be due to difference in the

number of students in academic years of each school.

The findings of the present study demonstrated that more than half of the studied sample, menarche age varied between 13 to 14 years with mean age at menarche was 13.3± 1.3 years. This was in agreement with the study of dysmenorrhea, absenteeism from school and symptoms suspicious for endometriosis in adolescents that carried out by *Zannoni et al. (2014)*, who mentioned that more than half of the studied sample menarche age at mean 12.3 years.

The finding of present study revealed that less than two thirds of the studied sample menstrual cycle was regular. This result was in the same line with *Zegeye (2009)* who conducted a study on age at menarche and the menstrual pattern of secondary school adolescents in northwest Ethiopia and reported that more than three fifth of studied sample menstruation was regular. Also supported by *Tavallae et al., (2011)*, who mentioned that more than half of studied sample (55%) had regular menstruation in study with entitled the prevalence of menstrual pain and associated risk factors among Iranian women. This result may be due to the facts that the selected sample in studies were at younger age, with no gynecological problems.

Regarding duration of the menstrual cycle, the findings of the present study revealed that, more than three quarters of

the students had duration of menstrual cycle ranged from 3-5 days with mean duration of menstrual cycle  $4.7 \pm 1.3$  days. This result was in the same line with *Wickramasinghe (2012)*, who conducted a study on managing menstrual hygiene in emergency situations and reported that mean duration of the menstrual cycle among adolescents was  $5.8 \pm 1.5$  days. Also supported by *Awed et al. (2013)*, who conducted a study on the use of fresh ginger herbs as a home remedy to relieve primary dysmenorrhea and revealed that more than two thirds of the studied sample (67.4%) had duration of menstrual cycle ranged from 3 - 5 days.

Regarding source of information, the findings of the present study showed that less than half of studied sample had information about dysmenorrhea from mother. This agreed with the study of appraisal of menstrual awareness and pattern among female secondary school students in Lagos carried out by *Adetokunbo et al. (2009)* who mentioned that less than two thirds of studied sample had information from mother. While *Rajni et al. (2013)* disagreed with the current study, who found that friends were the most important source of information, while the source of information for others was mothers and relatives, magazines, movies and T.V, were minority source in a study entitled as knowledge and practices related to menstruation among Tribal (Gujjar) adolescent girls. This difference in findings might be due to this topic is embarrassing.

Regarding the level of knowledge about dysmenorrhea, the findings of the present study showed that unsatisfactory knowledge to participants, this agreed with *Ogunfowokan and Babatunde (2010)* who reported that low level of knowledge for Nigerian females in a study that was done in Nigeria. This result may be due to the earlier age of the

studied females while can't gather a lot of information. While this result not agreed with the study of self care practices of adolescents in managing their menstruation and its related disorders carried out by *Mahna et al., (2014)* who reported that the majority of studied sample (93%) had satisfactory knowledge.

Regarding traditional practices used to relieve dysmenorrhea, the findings of the present study showed that less more two thirds of studied sample always took natural herbs and sometimes used warm compresses to relieve menstrual pain, this agreed with *Mathew et al. (2015)* who mentioned that more than half of (55%) of studied sample took hot drinks and used hot compresses in study with entitled dysmenorrhea among adolescent girls in selected schools at Mangalore with view to develop and distribute an information booklet. This result may be due to the females believed that hotness increases menstrual blood flow and the coldness decreases it.

The findings of the present study showed that more than half of the studied sample always took full comfort and sometimes used analgesic to relieve dysmenorrhea. This result agreed with *Tanmahasamut and Chawengsettakul (2012)* who conducted a study on dysmenorrhea in Siriraj medical students; prevalence, quality of life, and knowledge of management and stated that the majority of the study took full comfort and analgesic to relieve dysmenorrhea. This result may be due to the highly effect of comfort and analgesic in pain relief and also believed that physical activities will increase the menstrual pain and increase feeling of exhaustion.

The findings of the present study showed that more than half of studied sample always used essential oils to paint the place of pain and massage of the

abdomen in relieving dysmenorrhea. This result was in agreement with a study of effect of aromatherapy massage on dysmenorrhea in Turkish students that carried out by *Apay et al., (2012)* who mentioned that more than half of studied sample used massage of the abdomen and essential oils to paint the place of pain.

As regards no shower during menstrual period, the findings of the present study showed that less than two thirds of studied sample sometimes not shower during menstrual cycle. This result agreed with the study of *Sadiq and Salih (2013)* who reported that one third of studied sample (36%) sometimes not shower during menstrual period. This result may be due to showering is considered unhealthy, harmful and the cause of no bleeding as believed by many females.

As regards the degree of student's satisfaction regarding used methods for menstrual pain relief, the findings of the present study indicated that more than two fifth of studied sample satisfied with used methods. This result was strongly agreement with *Bayome et al., (2015)*, who reported that half of studied sample satisfied with traditional practices used to relieve pain and discomfort. This result may be due to the positive result the students have obtained.

As regards relation between severity of dysmenorrhea regarding absence from school and decrease in daily activities, the result of the current study revealed that there was a highly significantly associated with school absence in adolescent girls and decrease in daily activities. This finding was consistent with the result obtained by *Zegeye et al., (2009)* and *Cakir et al., (2011)* in studies in northwest Ethiopia and Turkey, they showed that there was a highly significantly associated with school

absence in adolescent girls and decrease in daily activities.

As regards correlation between total knowledge score and total practice score, the present study revealed that a highly statistical significant correlation between practices of participants and score of knowledge. This agreed with *Kreem et al., (2016)* in a study entitled promotion awareness level and practice about menstruation of rural preparatory school girls, it showed that there was a highly statistical significant correlation between practices of participants and their score of knowledge.

### **Conclusion**

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Less than two thirds of studied students always used many of traditional practices to relieve dysmenorrhea. The most common method was drinking natural herbs followed by taking a warm bath, massaging the abdomen, raising the legs during sleep, having full comfort, using certain oils to paint the place of pain and finally doing exercise respectively as reported by females. Moreover, the most of the studied sample sometimes used traditional practices to relieve dysmenorrhea as taking analgesics, sleeping on one side with knees bent, using warm compresses on the abdomen, no shower during menstrual days, respectively. There was highly statistically significant Correlation between total knowledge score and total practice score. Therefore, the study question was answered.

### **Recommendations:**

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**According to results of the current study, the following suggestions are recommended:**

- 1) Encouraging the student females to use traditional methods in the first

days of menses for relieving dysmenorrhea..

- 2) Educational program about physiological changes in the reproductive system and puberty of females should be extended to mothers in order to address the reproductive health needs of the female students because mothers were reported to be the most common source of information in many studies.
- 3) Further research is proposed to be done by using a wider geographic scope and a larger sample size that should include various groups such as young females in different secondary schools, adult females and women with dysmenorrhea

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