

Correlation between Quality of Life and Dysmenorrhea among Nursing Schools Students

Ekbal Abd Elrheim Emem¹, Hanan Elzeblawy Hassan^{2,*}

¹Assistant Professor of Women Health and Obstetric Nursing Department, Faculty of Nursing, Minia University, Egypt

²Department of Maternal & Newborn Health Nursing, Faculty of Nursing, Beni-Suef University, Beni-Suef, Egypt

Abstract Background: Dysmenorrhea is one of the most common health problems in young adolescent girls as it affects 50 - 90% of the general population. **Aim:** The aim of this study was to identify assess the correlation between quality of life and dysmenorrhea. **Method:** A correlational descriptive study was carried out at nursing schools students in government schools at El-Minia city. A total sample of 295 students participated in the study, of these, 278 participated in the study have dysmenorrhea. A structured interview questionnaire form was used for data collection including socio-demographic data, menstruation history and details of dysmenorrhea and question about Short Form-36 (SF- 36) health survey questionnaire. **Results:** Moderate positive association between students' age and physical function, and there was a moderate negative association between students' age with pain domain and total self-form. Also, there moderate positive association between students' emotional function and days of menstruation. **Conclusion:** Quality of life affects the regularity of menstruation. A significant correlation between QOL and presence, degree, site, and onset of menstrual pain was found. **Recommendations:** School health services should be started by raising awareness for education school girls about the dysmenorrhea and how they can adapt to daily activity to decrease menstrual pain.

Keywords Menstruation, Dysmenorrhea, Health related quality of life

1. Introduction

Menstruation, also known as a period or monthly period, [1] is the regular release of mucosal tissue & blood from the inner lining of the uterus (endometrium) through the vagina. [2] The 1st period usually starts between 12 - 15 years old, a point in time is known as menarche. [1] However, menarche may occasionally start as youthful as 8 years old & still be considered normal. [2]

The word dysmenorrhea is gotten from the Greek words, "dys" meaning troublesome or difficult, "meno" meaning month, & "rrhea" meaning stream or flow. [3] Dysmenorrhea is a standout amongst the most widely recognized health problems in youthful and young adolescent girls as it affects 50% to 90% of the general population. [4] Dysmenorrhea refers to the excruciating menstruation; as a cyclical cramping sensation hitting the lower abdomen or pelvic pain typically transmitting to the back or the thighs. It is regularly joined by different symptoms, for example, breast tenderness, anxiety, cerebral pain, spinal pains, generalized aching, anorexia, vomiting, and all occurring just before or during the menses. Several

risk factors have been linked to dysmenorrhea including unfortunate dietary habits, hormonal disturbance, and vitamins deficiency, exposure to chronic stress, smoking, & physical inactivity. [5]

Dysmenorrhea is divided into 2 types: Primary dysmenorrhea & secondary dysmenorrhea. Primary dysmenorrhea is the one, in which there is cramping pain in the lower abdomen at the beginning of menstruation without any identifiable pelvic disease; secondary dysmenorrhea, on the other hand, refers to painful menses resulting from an identifiable pelvic pathology such as a fibroid, adenomyosis, & pelvic inflammatory disease. [6]

Since the start of the 80s of the most recent century, the interest in the field of Quality of Life (QOL) has grown significantly with numerous studies that were directed in this research area. [7, 8] While a wide body of literature already dealt with QOL, the meaning of this term is as yet indistinct and raises a debate among practitioners, professionals & researchers that are engaged in this field. While there is a debate among researchers for the meaning of QOL, this term has an inherent meaning to most people. [9] World Health Organization (WHO) defines QOL as a person's impression of their position in life in the context of the culture & value systems in which they live in relation to their goals, expectations, standards & concerns. It is a broad-ranging concept affected in a complex way by the persons' physical wellbeing, mental state, & level of autonomy, social

* Corresponding author:

nona_nano_1712@yahoo.com (Hanan Elzeblawy Hassan)

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relationships, and their relationship to salient features of their environment. [10]

The QOL comprises of several aspects, like physical health, mental and psychological well-being, social relationships and environmental conditions. Several studies have stated that dysmenorrhea usually disrupts adolescents' educational & social life. [11, 12] This effect includes sickness absenteeism, reduced day-to-life activities, & failure to communicate with companions, resulting in loss of QOL among adolescent girls. [13, 14] Worldwide, dysmenorrhea has been anticipated as the greatest reason for time lost from work & school. [12] It influences their educational performance, social behavior, and sports activities. [1]

1.1. Significance and Aim of the Study

Dysmenorrhea and QOL are still considered unholy and impure; so it is necessary for us to clarify factors associated with dysmenorrhea in teenagers to improve their QOL. Another study also found that dysmenorrhea is a common health problem, having a negative effects on the health-related QOL among university female students. [15] All these points to the fact that dysmenorrhea is a serious public health issue influencing women of reproductive age (including adolescent girls in schools), worldwide, with great impact on their QOL. Therefore, attention needs to be drawn to this so as to improve QOL and academic performance of our secondary school girls, the leaders of tomorrow. A number of studies have been done on menstruation but just a few were focused on the perception of dysmenorrhea among senior school students. Previous national & worldwide written works have researched the epidemiology of dysmenorrhea in adolescent girls & concluded substantial variations in the incidence of dysmenorrhea. Other studies investigated the impact of this condition on the females' QOL, their productivity at work, and healthcare utilization. [16-20] However, the vast majority of studies have explored dysmenorrhea among adolescents; few studies investigated the relatedness effect of QOL on this condition among nursing school students. In this regards, the objective of this study is to investigate the correlation between QOL and dysmenorrhea among nursing school students in El-Minia city, Egypt. This study will hopefully solicit to incorporate culture-specific education regarding menstrual disorders into the school curriculum. It may also encourage the use of appropriate medication to relieve symptoms.

1.2. Research Questions

What is the correlation between quality of life and dysmenorrhea?

2. Subjects and Methods

2.1. Research Design

A Correlational descriptive study was used.

2.2. Study Setting

The study was conducted at nursing schools students at El-Minia city. The North to South educational consists of 10 cities. Three nursing school were randomly selected from all of the North to South sectors as mentioned.

1. El-Minia Center.
2. Al-Adwa Center.
3. Abou Qurqas Center.

2.3. Subjects

The target population was the student of nursing schools enrolled in government school El-Minia city. A convenience sample including all available students affiliated to above-mentioned schools at El-Minia city, (295). Of these, 295 participated in the study; 278 students have dysmenorrhea and are willing to participate in the study. The sample size was calculated utilizing the following formula.

$$N = P * (1 - P) * (Z \alpha / d)^2$$

Where: (n) refer to sample size, (P) refer to expected proportion and (d) refer to tolerated error/margin of error = 0.05; confidence interval (CI) = 95%, the value for (Z α) = 1.96 is found in statistical tables

$$N = 75 \% * (1 - 75\%) * (1.96 / 0.05)^2 = 288.12.$$

2.3.1. Inclusion Criteria

- Age (15-18 years).
- Healthy dysmenorrhea associated with menstruation.

2.3.2. Exclusion Criteria

- Abnormal bleeding.
- Pelvic inflammatory diseases.
- Refusal for participation in the study.

2.4. Tools of Collection the Data

Data collected by using adopted 2 tools.

2.4.1. Tool I: A structured interview questionnaire from was used for data collection. It included two parts:

Part i: including socio-demographic and menstruation data (age, grade, age of menarche, regularity of menstrual cycle, and duration of menstrual cycle.

Part ii: covered the details onset of dysmenorrhea, duration of pain, region of pain and symptoms associated with menstrual pain as backache, fatigue, nausea and vomiting, headache.....etc.

2.4.2. Tool II: It includes Short Form-36 (SF- 36) health survey questionnaire developed by Ware et al. (1992) to determine the HRQOL (health related QOL) it consist of 36 items which provide assessment in eight domains:- physical functioning, role limitation due to physical wellbeing, role limitation due to emotional problem, energy/ fatigue, emotional well-being, social functioning, pain & general health. [21]

2.5. Validity & Reliability of Tool

The validity & reliability of this instrument has been established for measuring HRQOL in vast populaces of both healthy & sick individuals. The high scores got from the scale demonstrates that the HRQOL increments in a positive way.

2.6. Pilot Study

A pilot study was conducted on 10% (28 students) of the aggregate sample to check the clearness of items and to determine the feasibility of the study. The data collection form was finalized based on the pilot results.

2.7. Procedure

After taking agreement from the school authorities, and the sampled students themselves before the study. Permission was taken from the school Principal & class teachers. Also, assent was obtained from the students' parents and guardians before the study was carried out. The aim of the study was explained to the sampled population. Absolute confidentiality & secrecy were ensured.

The researchers were available on site during distribution of questionnaire according to inclusion and exclusion criteria, start to explain them the objective behind the study & to assist them in completing the questionnaire. Information was collected on the students' age, grade and residency.

Question related to menstruation as their age at menarche, regularity of the cycle, length & duration of cycle, amount of bleeding (according to number of pads used per day, pain during menstruation, severity of the pain (mild or moderate or severe), according to symptoms effect, and if any and question regarding health related QOL. The students assembled in classroom subsequent to completing the lectures or after the closure of clinical area's day. This took approximately 45 minutes to be completed. The data collection phase extended through a period of 3 month from March to May, 20017.

2.8. Ethical Considerations

The study aims in simple and clear manner to be understood by the researcher were explained all participant students before to gain their confidence. The topic of this study no harmful maneuvers were performed or used, and did not touch the ethical, traditional, cultural and religious issues among participants.

2.9. Statistical Analysis

Data entry and statistical analysis were finished utilizing SPSS 20.0 statistical software package. Data were displayed utilizing descriptive statistics, inferential statistics & graphic presentation. Statistical significance was considered at P - value < 0.05; insignificant (NS) if P value > 0.05, mild Statistical significant if $P \leq 0.05$, moderate Statistical significance if $P \leq 0.01$, highly Statistical significant if $P \leq 0.001$.

A. descriptive statistics:

1. Frequencies & percentages (number and percent) were used to express the qualitative data.
2. Mean and standard deviations ($X \pm SD$) were used to express the quantitative data.

B. inferential statistics:

1. Pearson correlation coefficient (r) test was used to test the correlation between domains of short form health survey (SF- 36) and students' age, the age of menarche, days of menstruation, and a number of pads/ days among studied group.
2. Chi-square (χ^2) & Fisher tests were used to test the relationship between menstrual history and levels of QOL among studied group.

C. Column diagram was used to express the graphic presentation of the results.

3. Results

Figure (1) illustrated that 60% of nursing student's aged ranged between 17- 18 years and 40% ranged between 15- 16 years.

It is clear from **Table (1)** that 59.3% of nurses' student age of menarche was ranged between 10 - 13 years with mean \pm SD (13.4 ± 1.1), and 64.4% of them mentioned days of menstruation ranged between 4 – 5 days with mean \pm SD (4.9 ± 1.1). Regarding a number of pads used per day most (94.2%) of nurses' students reported one pad to five pads/days, more than half (54.2%) of them reported the menstruation was regular and its duration between 21 – 33 days as mentioned by 95.6% of them. Most (94.2%) of nurses' students revealed suffered from pain with a moderate and severe degree (45.7% & 45.7%), respectively, and 56.5% of them the pain beginning at the day of menstruation especially in lower abdomen and back (68.7%). also, the majority (87.5%) of them reported there was a manifestation combined with menstruation.

Figure (2) revealed that around two-thirds (66.3%, 65.1%, 65.1%), respectively, of the nursing students' mood swings, back pain, and tiredness are the most common manifestation combined with menstruation followed by more than half (52.7%) of them suffered from loss of appetite, then more than two-fifths (43.4%, 41.9%), respectively, of them suffered from headache and stomach pain. One quarter (25.6%) of them complained from tenderness of breast when touch, one fifth (20.9% & 20.2%), respectively, of them, complained from profuse sweating and diarrhea, and the minority of complained was related to inability to concentration, tenderness of breast, facial puffiness, and increase weight (19.8%, 14.3%, 12.0%, and 8.9%), respectively.

It is evident from **Table (2)** that the highest mean among studied group regarding SF- 36 and its domain were related to physical & social function, followed by health changes, then pain, and the totally SF- 36 questionnaire (62.1 ± 22.0 ,

56.6 ± 22.6, 54.3 ± 25.2, 54.2 ± 21.6, 54.1 ± 8.9), respectively. The role function related to physical and emotional mean was 52.1 ± 33.4 & 51.5 ± 36.9, respectively, and the lowest mean was regarding general health domain was 46.9 ± 10.8.

It is clear from **Table (3)** that moderate positive association between students' age and physical function ($r = 0.628$, P - value = 0.007), and there was mild negative association between students' age with pain domain and total self-form questionnaire function ($r = -0.514$, P - value = 0.018) and ($r = -0.520$, P - value = 0.032), respectively. Also, there moderate positive association between students'.

It is evident from **Table (4)** that 94.5% of nurses student with poor QOL have pain during menstruation comparing with only 6.5% of those students with good QOL. The degree of pain was severe among about half (49.5%) of them. The majority (92.2%) of studied sample with poor QOL suffered from moderate/severe degree of pain and 20.0% of them

their onset of pain was 2- 3 days prior menstruation; while no one (0.0%) of them with good QOL suffered from moderate/severe degree and non (0.0%) of them their onset of pain was 2- 3 days prior menstruation. Moreover, 65% of the students with poor QOL reported that the most site of pain was in lower abdomen and back comparing to only 2.0% of the students with good QOL. Highly statistical association was observed between students' menstrual history and their levels of QOL (P - value ≤ 0.001).

Regarding the relationship between the manifestations combined with menstruation and students' QOL, it is evident from **Table (5)** that there was statistical significant difference between levels of QOL and stomach pain (p - value = 0.05); back pain (p - value = 0.05), and loss of appetite (p - value = 0.02); among nurses students. Also, it observed that 59.7%, 63.4%, 64.5%, and 43.5% of the studied group with poor QOL suffering from mood swings, back pain, tiredness, and loss of appetite, respectively.

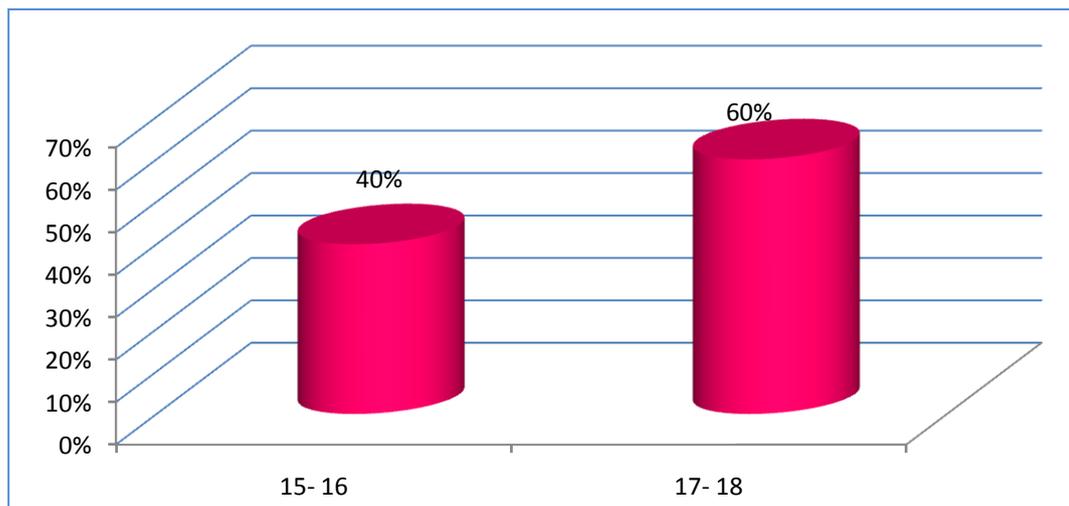


Figure (1). Distribution nursing students' age among studied group (n= 295)

Table (1). Distribution menstrual history among studied group (n= 295)

Menstrual history	No.	%
Age of menarche		
10- 13	175	59.3
14 - 17	120	40.7
Mean ± SD	13.4 ± 1.	
Days of menstruation		
2-	26	8.8
4-	190	64.4
6-	79	26.8
Mean ± SD	4.9 ± 1.1	
No. of pads/ days		
1- 5	278	94.2
6- 10	17	5.8
Mean ± SD	3.2 ± 1.4	
Regularity of menstruation		

Menstrual history	No.	%
Yes	160	54.2
No	135	45.8
<i>If yes, duration of cycle (n= 160)</i>		
< 21 day	7	4.4
21-33 days	153	95.6
Pain with menstruation		
Yes	278	94.2
No	17	5.8
<i>If yes, degree of pain</i>		
Mild	24	8.6
Moderate	127	45.7
Severe	127	45.7
Onset of pain		
At the day of menstruation	157	56.5
1 days prior menstruation	74	26.6
2- 3 days prior menstruation	47	16.9
Site of pain		
Lower abdomen	51	18.3
Lumber region	7	2.5
Lower abdomen, back	191	68.7
Pelvic pain	29	10.5
Manifestations combined with menstruation		
Yes	258	87.5
No	37	12.5

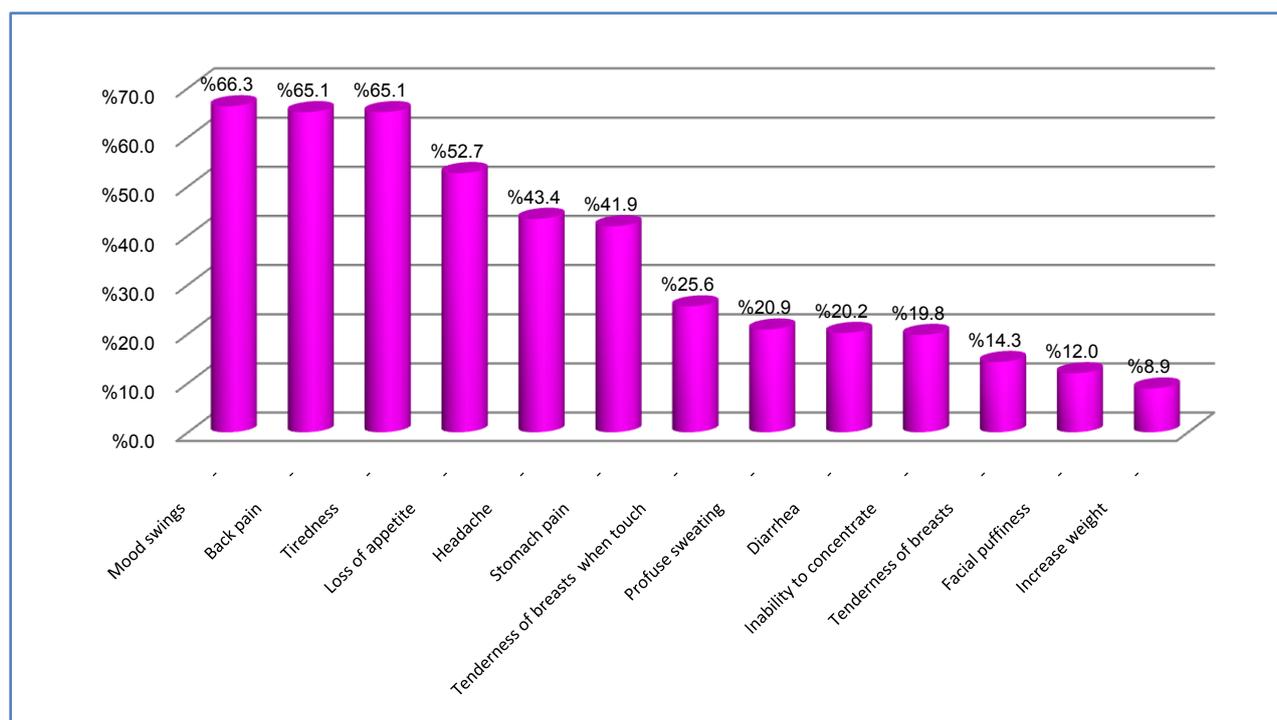


Figure 2. Most Common Manifestations Combined with Menstruation

Table (2). Mean and standard deviation of short form health survey (SF- 36) among studied group (n= 295)

Short form health survey (SF- 36) and its domain	Mean \pm SD
Physical function	62.1 \pm 22.0
Social function	56.6 \pm 22.6
Health changes	54.3 \pm 25.2
Pain	54.2 \pm 21.6
Total SF- 36	54.1 \pm 8.9
Emotional function	52.6 \pm 19.8
Role functioning/ Physical	52.1 \pm 33.4
Role functioning/ emotional	51.5 \pm 36.9
Energy function	47.2 \pm 19.2
General health	46.9 \pm 10.8

Table (3). Correlation between domains of short form health survey (SF- 36) and students' age, age of menarche, days of menstruation, and no. of pads/ days among studied group (n= 295)

Students' data	SF- 36 domains	Student's age	Age of menarche	Days of menstruation	No. of pads/ days
Physical function	r	0.628	- 0.041	0.047	0.012
	P - value	0.007**	0.478	0.423	0.835
Limitation physical function	r	0.183	0.044	0.009	0.068
	P - value	0.483	0.455	0.879	0.242
Limitation emotional function	r	0.144	- 0.021	- 0.045	- 0.025
	P - value	0.581	0.716	0.445	0.669
Energy function	r	0.283	0.043	- 0.079	- 0.016
	P - value	0.271	0.459	0.175	0.780
Emotional function	r	0.305	0.008	- 0.541	0.002
	P - value	0.234	0.888	.0025**	0.975
Social function	r	0.010	0.098	- 0.046	0.012
	P - value	0.869	0.094	0.427	0.835
Pain	r	- 0.514	0.042	- 0.076	- 0.058
	P - value	0.018*	0.474	0.196	0.325
General health	r	- 0.336	- 0.062	- 0.062	- 0.047
	P - value	0.187	0.286	0.292	0.421
Health changes	r	0.038	0.015	- 0.045	0.086
	P - value	0.520	0.795	0.442	0.140
Total SF	r	- 0.520	0.005	- 0.030	0.018
	P - value	0.032*	0.927	0.611	0.762

* Mild Statistical Significant (Correlation is significant at the 0.05 level).

** Moderate Statistical Significant (Correlation is significant at the 0.01 level).

Table (4). Relations between menstrual history and levels of QOL among studied group (n= 295)

Menstrual history	Poor quality (n = 218)		Good quality (n = 77)		Test	P - value
	No.	%	No.	%		
Regularity of menstruation						
Yes	119	54.6	41	53.2	χ^2 0.041	0.839
No	99	45.4	36	46.8		NS
Pain during menstruation						
Yes	206	94.5	5	6.5	χ^2 4.102	0.000***
No	12	5.5	72	93.5		
If yes, degree of pain						
Mild	16	7.8	5	100	Fisher 6.125	0.000***
Moderate	88	42.7	0	0.0		
Severe	102	49.5	0	0.0		
Onset of pain						
At the day of menstruation	111	53.9	3	60.0	Fisher 6.954	0.000***
1 days prior menstruation	53	25.7	2	40.0		
2- 3 days prior menstruation	42	20.4	0	0.0		
Site of pain						
Lower abdomen	40	19.4	3	60	Fisher 8.776	0.000***
Lumber region	7	3.4	0	0.0		
Lower abdomen, back	134	65.0	2	40		
Pelvic pain	25	12.2	0	0.0		

NS = No Significant difference

*** Highly Statistical Significant (Correlation is significant at the 0.001 level).

Table (5). Relationship between manifestations combined with menstruation and students' QOL

Manifestations combined with menstruation	Poor quality (n=186)		Good quality (n=92)		χ^2	P - value
	No.	%	No.	%		
No	27	12.4	10	13.0	0.019	0.891 NS
Yes	191	87.6	67	87.0		
- Stomach pain	66	35.5	41	44.6	2.144	0.05*
- Mood swings	111	59.7	57	61.9	1.134	0.715
- Diarrhea	32	17.2	18	19.6	0.233	0.630
- Increase weight	15	8.1	6	6.5	0.210	0.647
- Tenderness of breasts	26	14	10	10.9	0.528	0.468
- Profuse sweating	32	17.2	21	22.8	1.261	0.262
- Tenderness of breasts when touch	47	25.3	18	19.5	1.118	0.290
- Back pain	118	63.4	66	71.7	4.894	0.05*
- Tiredness	120	64.5	63	68.4	0.430	0.512
- Headache	76	40.9	34	36.9	0.392	0.531
- Loss of appetite	81	43.5	53	57.6	4.874	0.02*
- Inability to concentrate	30	16.1	20	21.7	1.313	0.252
- Hot flashing	23	12.4	8	8.7	2.837	0.360

NS = No Significant difference

* Mild Statistical Significant (Correlation is significant at the 0.05 level).

4. Discussion

Quality Of Life (QOL) has become an increasingly attractive subject in recent decades, drawing attention from both enthusiasts and researchers. [9] QOL comprised of broad concepts that relating global life satisfaction, including health, appropriate housing, employment, sense of security, interrelationships, education, etc. Many researchers consider QOL as the general well-being of individuals & societies, outlining negative & positive features of life. Researchers relate to QOL components of happiness & satisfaction with life, For example, Aristotle, one of the first scholars which defined QOL noted: “Both the multitude & persons of refinement conceive “the good life” or “doing well” to be the same thing as “being happy” (384-322 BC; 3). [22] Dysmenorrhea is defined as campy pelvic pain starting shortly before or at the beginning of menstruation and enduring 1-3 days. Some 2-4 days before monthly cycle starts, prostaglandins continue into the uterine muscle where they build up rapidly at the menstrual beginning and act as smooth muscle contractors that aid in the expulsion of the endometrium. [23]

This study revealed that the mean age of menarche was 13.4 ± 1.1 years. This congruent with findings from Kuppam, Andhra, Pradesh, India was done by Savanth and Nanjundappa (2016) [24] who study the knowledge, practices, and sources of data pertaining to menstruation and hygiene among adolescent girls and found that mean age at menarche was 13.8 years. Additionally, Busari (2012) [25] mentioned that 13 years was the mean age at the menarche among adolescent girls in the northern part of Oyo state. Also, Abd El-Hamed, et al. (2011) [18] who assess the prevalence & pattern of dysmenorrhea among secondary nursery school in El-Minia city illustrated the nearly same mean age (13.2 years). Regarding days of menstruation among studied sample, the mean days was 4.9 ± 1.1 days. This finding consistent with Busari (2012) [25] from Nigeria who mentioned that average duration of menstrual flow was five days among adolescent girls. Other study done by Abd El-Hamed, et al. (2011) [18] revealed that student girls duration of menstrual flow ranged from 2 to 8 days and confirmed that, pads must be changed as early as possible before it is soaked with menstrual flow. Concerning to mean number of pads changes per day, this study found that the mostly sample changed three pads per day.

In this study, more than half (54.2%) of the sample reported that they have regular menstruation. In contradicting to this result Omidvar et al. (2015) [26] from south India identify relationship between primary dysmenorrhea and menstrual attitude cleared that, majority of the girls have regular menstrual pattern and Busari (2012) [25] who mentioned that 87% of adolescent girls mentioned the menstruation periods were regular.

Regarding the occurrence of pain with menstruation, the most studied sample was suffering from it. This result in the same line with an epidemiological study in Egypt done by Mohamed & Mansour (2013) [27] and reported that 75% of

pubertal adolescent experienced dysmenorrhea. Omidvar & Begum (2012) [28] who investigated characteristics and determinants of primary dysmenorrhea in young adults, reported that 72.9% of the participants experienced menstrual pain. Also, Santana, et al. (2011) [29] showed that there is a high prevalence of dysmenorrhea among adolescents was ranged (50% - 70%) especially in the first years of their reproductive life.

Concerning site of pain, two-thirds of the studied sample the pain most occur in the lower abdomen and back. This result accordance with Rabiepoor, et al. (2017) [30] who reported that 87.6% of adolescents participated in the study has menstrual pain in the lower abdomen and back. Additionally, Pumford, et al. (2012) [31] founded that 84% of studied girls complain from stomach and lower back pain during menstruation.

Two-thirds of the studied group mentioned mood swings was a most common manifestation among them followed by back pain and tiredness. While more than half of them have loss of appetite. These findings supported by Pumford, et al. (2012) [31] who founded that headache/mood changes (78%), then faintness & heavy periods, respectively, (58% & 41%), respectively, were the most common symptoms appear during menstruation among girls. Shewte & Sirpurkar (2016) [32] reported that most commonly associated physical symptom among dysmenorrheic study subjects was reduced appetite (41.9%).

The high scores obtained from short form health survey (SF- 36) increases in a positive way. In this regarding, the studied sample has a lower mean of SF- 36 among studied group. Similarly, a study conducted by Shewte, & Sirpurkar (2016) [32] reported that dysmenorrhea is an important illness that affects physical, Social & psychological parameters such as social functioning, role-emotional, and mental health. In addition, with the increasing severity of dysmenorrhea, the average scores received from all the domains of SF- 36 showed decrease. This is consistent with the study by Barnard et al. (2003) [33] and Chaumoor et al. (2012) [34] who indicating that women with dysmenorrhea and the other menstrual symptoms had lower HRQOL values. Another study by Pumford, et al. (2012) [31] concluded that women who suffer from problem periods have a significant impairment of their QOL and productivity. Also, Abd El-Hamed, et al., 2011 [18] mentioned that menstrual pain sometimes can be accompanied with the physical and health issues discomfort and might finally cause physical, emotional & social destructive effects.

5. Conclusions

The current study concluded that there is a positive association between students' age and physical function, and there was a moderate negative association between students' age with pain domain and total self-form questionnaire. Also, there moderate positive association between students' emotional function and days of menstruation. There is an

association between QOL and dysmenorrhea; QOL affects the regularity of menstruation. A significant correlation between QOL and presence, degree, site, and onset of menstrual pain was found.

6. Recommendations

1. The study recommends school health services should be start by raise awareness of adolescents about issues related to menstruation, and how to adapt to daily activity to decrease menstrual pain.
2. Also health education school authorities and teachers should be aware of the problems of dysmenorrhea to provide psychological and academic support through tutorial a class to the affected group of students by Simple booklets regarding how to coping with menstrual disorders or given through workshops, school classes and seminars on “Adolescent Reproductive Health”.

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