Assessment of Knowledge regarding Primary Dysmenorrhea among Nursing Students

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Abstract

Background: Primary dysmenorrhea disturbs the quality of life of nursing students females. It decreases students' academic performance, peers class concentration and increase absenteeism. **Aim of the study**: The present study aimed to assess knowledge regarding primary dysmenorrhea among nursing students. **Research Design**: Descriptive study design was utilized in this study. **Setting**: The study was conducted at Faculty of Nursing Benha University. **Sample:** A purposive sample of 100 students in the first academic year. **Tools of data collection**: Two tools were used, Tool (I): Self- administered questionnaire sheet. Tool (II) Nursing students Knowledge regarding dysmenorrhea. **Results:** 48% of studied students aged (18:<19) years with the mean and SD 17.76±0.68, weight of studied students ranged from 42-85 with the mean and SD 58.07±7.50, while the height ranged from 145-180 with the mean and SD 157.38±8.22, and 59% of them had normal body mass index with the mean 23.57±3.51. 72% of studied students had menarche at age 12-14 years with the mean ±SD of 13.19±0.62, while 94% of students menstruated 4-6 days with the mean ±SD of 5.101±0.7213, and all students had regular menstruation with interval from 21-35 days while 64% of students had moderate follow of menstruation. **Conclusion**: The study concluded that the majority of studied nursing students had poor knowledge about primary dysmenorrhea. **Recommendation:** Implement targeted educational programs to enhance nursing students' knowledge about primary dysmenorrhea, including its causes, symptoms, and treatment options.

Keywords: Assessment, Knowledge, Primary dysmenorrhea

Introduction:

Menstruation is shedding of the endometrium every month during the menstrual cycle which is regulated by a combination of the hypothalamus, hypophysis, ovaries, and uterus. The hypothalamus and the pituitary gland regulate the reproductive hormones. Menstrual disorders are a common problem in adolescents which are often the source of anxiety for the patients and the families. The common menstrual disorders in adolescents are amenorrhea, excessive uterine bleeding, dysmenorrhea, and premenstrual syndrome **(Fedorcsak, 2024).**

Primary dysmenorrhea refers to painful menstrual cramps that occur without an underlying medical condition. It typically begins within a few hours of menstruation and can last from a few hours to a couple of days. The pain is usually located in the lower abdomen or pelvis and is caused by the release of prostaglandins, which trigger uterine contractions. While primary dysmenorrhea is common, particularly in younger women, it tends to decrease with age or after childbirth **(Rani et al., 2024).**

Primary dysmenorrhea is typically caused by an increase in prostaglandins, which are hormone-like substances that trigger uterine contractions. These contractions can cause pain and discomfort during menstruation. Other factors that may contribute include a

heavier menstrual flow, an early age of menarche, longer menstrual cycles, or a family history of dysmenorrhea. Additionally, conditions like stress or anxiety can exacerbate the severity of symptoms **(Rao et al., 2022).**

Primary dysmenorrhea symptoms primarily include lower abdominal or pelvic pain that occurs just before or during menstruation. The pain is often cramp-like, ranging from mild to severe, and may be accompanied by nausea, fatigue, headaches, and back pain. Some women also experience bloating, diarrhea, or dizziness. These symptoms are typically caused by uterine contractions triggered by elevated prostaglandin levels. The pain usually starts a few hours before or at the onset of menstruation **(Itani et al., 2022).**

Dysmenorrhea can greatly impact nursing students by causing severe pain, fatigue, and other symptoms like nausea, which make it difficult to focus on studies and clinical practice. The physical discomfort can lead to missed classes and clinical sessions, negatively affecting academic performance. In addition, the emotional strain and stress from managing pain while keeping up with demanding coursework can reduce overall productivity. Nursing students already face a heavy workload, and dysmenorrhea can further contribute to anxiety **(Yöndem & Çıtak, 2022).**

Dysmenorrhea can be managed with both medications and natural methods. NSAIDs (Non-steroidal anti inflammatory drugs) like ibuprofen reduce pain, while oral contraceptives regulate cycles and lessen cramps. Heat therapy, exercise, dietary changes, and relaxation techniques such as yoga can help alleviate symptoms. Acupuncture may also offer relief. A combination of these approaches is often effective in managing pain **(Wal et al., 2024).**

Nurses play a crucial role in supporting nursing students with dysmenorrhea. They can provide education on pain management strategies, including both pharmacological (e.g., NSAIDs) and non-pharmacological methods (e.g., heat therapy, exercise). Additionally, they can offer emotional support and assist in creating an environment that allows for flexibility, such as adjusting schedules or offering resources for stress management. Promoting understanding of dysmenorrhea among students can help reduce stigma and encourage self-care **(Piot et al., 2022).**

Significance of the study:

Adolescents' quality of life is adversely affected by dysmenorrhea because it interferes with social interactions, academic achievement, and leisure time, class concentration and increase absenteeism.

Dysmenorrhea also effects on quality of sleep as falling asleep during studies, inability to complete the homework, reduced physical activity, feelings of isolation, anxiety and depressive symptoms **(Ghandour et al., 2024).**

Up to 91% of people worldwide suffer from dysmenorrhea, and 10–20% of those people have severe dysmenorrhea. It is the most frequent reason for repeated absences from school (80%), difficulty concentration in class (66%), low participation (47%), difficulty doing assignments (21%), test failure (15.4%), and limited activities (29.9%) **(Osman et al.,2024).** Egypt has a high prevalence of dysmenorrhea (66.0%), with 28.4% of cases being mild, 24.3% being moderate, and 13.3% being severe **(Elsawy et al., 2023).**

Nurses play a key role in increasing nursing students' knowledge about dysmenorrhea by providing information on its causes, symptoms, and treatment options. They can educate students about both

pharmacological (e.g., NSAIDs, contraceptives) and non-pharmacological methods (e.g., heat therapy, exercise) to manage pain. Nurses can also raise awareness about the impact of lifestyle factors, such as stress and diet, and encourage healthy habits to reduce symptoms **(Ghallab et al., 2023).**

Aim of the study:

Assess knowledge regarding primary dysmenorrhea among nursing students.

Research question:

What is the level of nursing students knowledge regarding primary dysmenorrhea?

Subjects and Method

Study design:

A descriptive design was used to fulfill the aim of the study.

Descriptive design is a type of research design that utilizes both quantitative and qualitative methods of research to collect data to describe a phenomenon, situation, or population **(Taherdoost, 2022).**

Study setting:

This study was conducted at Faculty of Nursing- Benha University.

Sampling:

Sample type: A purposive sample of Female nursing students.

A purposive sample: is a technique used in qualitative research to select a specific group of individuals or units for analysis **(Adeoye, 2023).**

Sample size: Female nursing students (100 students) in the first academic year 2023-2024 who met the following inclusion criteria:

1-Nursing students who have experience dysmenorrhea .

2- Nursing students who had regular menses.

Sample technique:

The researchers visited the faculty of nursing 2days /week from 9Am to 2Pm until the predetermined sample size was obtained.

Tools of data collection:

Two tools were utilized for collecting data:

Tool I: Self- administered questionnaire sheet:

It was constructed by researchers after reviewing a related literatures and then translated into Arabic language. It included the following four parts:

Part A: General characteristics of the studied sample: age, residence, mother's education, weight, height and body mass index.

Part B: Menstrual history such as: age at menarche, amount of menstrual flow, character of blood flow, regularity, interval, duration of menstruation and pads used. It adapted from (**Khan et al., 2021).**

Part C: History of Dysmenorrhea such as: time of dysmenorrhea, character of pain, duration of pain, Pain location, effect of dysmenorrhea on faculty attendance, effect of dysmenorrhea on faculty achievement and methods to relieve menstrual pain.

Tools (II): Nursing student s' Knowledge regarding dysmenorrhea: It was constructed by researchers after reviewing a related literature, under guidance of supervisors and translated into Arabic language. It was designed to assess nursing students' knowledge regarding dysmenorrhea through 8 questions such as (definition, types, causes, contributing factors, physical symptoms, psychological symptoms, complications and treatment of dysmenorrhea). It adapted from **(Mohamed et al., 2020; Veena & Rajan, 2022;Chaurasia et al ., 2021) .**

Knowledge's scoring system:

All knowledge variables were weighted according to items included in each question. The answer scored as (2) for correct complete answer, (1) for correct incomplete answer, while (0) is scored when the answer was incorrect or I don't know.

Total knowledge score:

The total score was calculated by summation of scores of all items. The higher scores mean higher level of knowledge. The total knowledge was scored as following: (The total score 100% (16 point))

- Good >75 % (>12 point)
- Average 50-75 % (8-12 point)
- Poor <50 % (<8 point)

Validity of the tools:

The validity of questionnaires was reviewed by a panel of three jury experts in the field of obstetrics & gynecology nursing at Benha University to ascertain clarity, relevance, comprehensiveness, and applicability of tools. Modifications were done such as adding, rephrasing and omitting some questions.

Reliability of the tools:

The reliability was done by Cronbach's Alpha coefficient test which revealed that; the value was 0.755 for reliability of knowledge sheet.

Ethical consideration:

Ethical aspects were considered before starting the study as the following:

- The study approval was obtained from scientific research ethical committee of the faculty of nursing at Benha University for fulfillment of the study. (code:REC-OBSN-74).
- Before applying the tools, the researchers explained the aim and importance of the study to gain student's confidence and trust.
- The researchers took informed consent from student to participate in the study and confidentialities were assured.
- Nursing students who accepted to participate in the study.
- The study did not have any physical, social or psychological risks on the students.
- All tools of data collection were burned after statistically analysis to promote confidentiality of the participating student.
- The student was free to withdraw from study at any time.

Pilot study:

The pilot study was conducted on 10 % of sample that was (10 students). It was done to estimate the time required for each tool to be filled also to check the simplicity, clarity, applicability and feasibility of the developed tools as well as to identify any possible obstacles that may hinder data collection. There were no modifications done. Thus, students involved in the pilot study were excluded in the study.

Field work:

- The study was carried out from the beginning of October 2023 to the end of December 2024.
- The researchers visited Faculty of Nursing Benha University 2days/week (Saturday, Monday,) from 9am to 2pm.
- The researchers greated the students and introduced herself then explained the purpose of the study, scheduled times and frequency of sessions to assure adherence to selected interventions and to gain their cooperation.

- The researchers obtained the informed consent from the students to participate in the study then applied the research.
- Due to the presence of female nursing students in different groups (10 groups) according to their schedule of the clinical course in the college, the researchers assessed about 3-5 nursing student per day. Data was collected by the researchers through the distribution of a self-administered questionnaire to assess nursing students general characteristics, menstrual history and history of dysmenorrhea and (Tool I) which took around (10-15) minutes.
- After that, the researchers distributed students' knowledge regarding dysmenorrhea sheet (Tool II) to assess students' knowledge regarding dysmenorrhea. This assessment took 15minutes.
- The total time taken for completing all sheets was around 25-30 minutes depending on the understanding of the students.

Statistical analysis:

Data was verified prior to computerized entry. The Statistical Package for Social Sciences (SPSS version 20.0) was used. Descriptive statistics were applied (e.g., mean, standard deviation, frequency and percentages). Tests of significance (chi square, fisher exact test, independent t test, pearson correlation and coefficient test) was applied to test the study hypothesis. Statistical significance was considered as follows:

- P value >0.05 non- statistically significant relation.
- P value <0.05 statistically significant relation.
- P value <0.01 highly- statistically significant relation.

Limitations of the study:

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

Results:

Table (1) clarified that 48% of studied students aged (18:<19) years with the mean and SD 17.76±0.68, 68% of studied students lived in rural area, 64% had mothers with secondary education, weight of studied students ranged from 42-85 with the mean and SD 58.07±7.50, while the height ranged from 145-180 with the mean and SD 157.38±8.22.

Figure (1) showed that 59% of studied students had normal body mass index.

Table (2) showed that 72% of studied students had menarche at age 12-14 years with the mean ±SD of 13.19±0.62, while 94% of students menstruated 4-6 days with the mean ±SD of 5.101±0.7213, and all students had regular menstruation with interval from 21-35 days while 64% of students had moderate follow of menstruation.

Table (3) showed that 28% of studied students had pain lasted for two days with the same percentage had pain lasted for week before menstruation, this pain appeared in 56% of studied students suddenly. Dysmenorrhea lasted more than 36 hours in 69 % of studied students with the mean ±SD 43.36±6.95 and affected more than one site in 90% of them, and also affected on students attendance and achievement in 96% of them.

Figure (2) showed that 94% of studied students took sedative to decrease pain. knowledge regarding primary dysmenorrhea

Figure (3) showed that 76% of studied students acquired their knowledge regarding primary dysmenorrhea from mass media.

Figure (4) showed that 72% of studied students had poor knowledge regarding primary dysmenorrhea.

Table (1): Distribution of studied nursing students regarding personal characteristics (n=100).

Personal characteristics	No	%
Age (years)		
17 : <18	38	38.0
18 : <19	**48**	**48.0**
≥19	14	14.0
Mean ±SD	17.76±0.68	
Residence		
Rural	**68**	**68.0**
Urban	12	12.0
Mother's education		
Read and write	8	8.0
Basic education	15	15.0
Secondary education	**64**	**64.0**
University education	13	13.0
Weight		
Min –max	42-85	
Mean ±SD	58.07±7.50	
Height		
Min –max	145-180	
Mean ±SD	157.38±8.22	

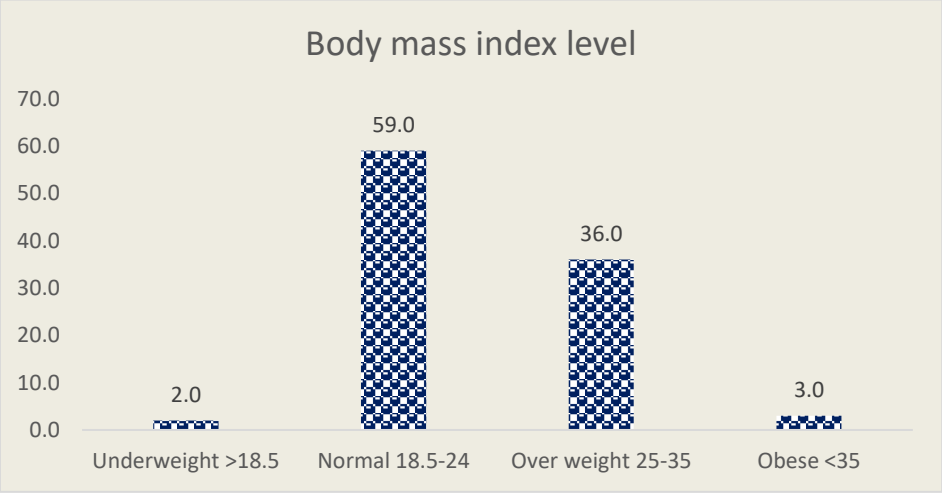

Figure (1): Percentage distribution of studied students regarding their level of body mass index (n=100).

Table (2): Distribution of studied students regarding menstrual history (n=100).

Menstrual history	No	%
Age at menarche		
<12	5	5.0
12-<14	**72**	**72.0**
14<1٦	23	23.0
Min –max	11-15	
Mean ±SD	13.19±0.62	
Days of menstruation		
1-3	3	3.0
4-6	**94**	**94.0**
6-9	3	3.0
Min –max	3-7	
Mean ±SD	5.101±0.7213	
Menstrual intervals		
21-35 days	**100**	**100.0**
Min –max	21-30	
Mean ±SD	24.460±2.5243	
Regularity of menstruation		
Yes	**100**	**100.0**
Amount of blood loss		
Moderate	**64**	**64.0**
Severe	36	36.0
Pads used		
2-3	**81**	**81.0**
More than 3pads	19	19.0
Character of blood flow		
Intermittent menstrual bleeding	10	10.0
Continuous menstrual bleeding	**90**	**90.0**

Table (3): Distribution of studied students regarding history of dysmenorrhea (n=100).

History of dysmenorrhea	No	%
Time of dysmenorrhea		
Before menstruation	20	20.0
In the first day	24	24.0
Lasts for two days	**28**	**28.0**
Week before menstruation	**28**	**28.0**
Character of pain		
Gradually	26	26.0
Suddenly	**56**	**56.0**
Interrupted	18	18.0
Pain duration		
24: <36 hours	31	31.0
≥36 hours	**69**	**69.0**
Min –max	24-48	
Mean ±SD	43.36±6.95	
Pain location		
Lower abdomen	4	4.0
Low back	5	5.0
Lower limbs	1	1.0
More than one site	**90**	**90.0**
Effect of dysmenorrhea on Faculty attendance		
Yes	**96**	**96.0**
No	4	4.0
Effect of dysmenorrhea on Faculty achievement		
Yes	**96**	**96.0**
No	4	4.0

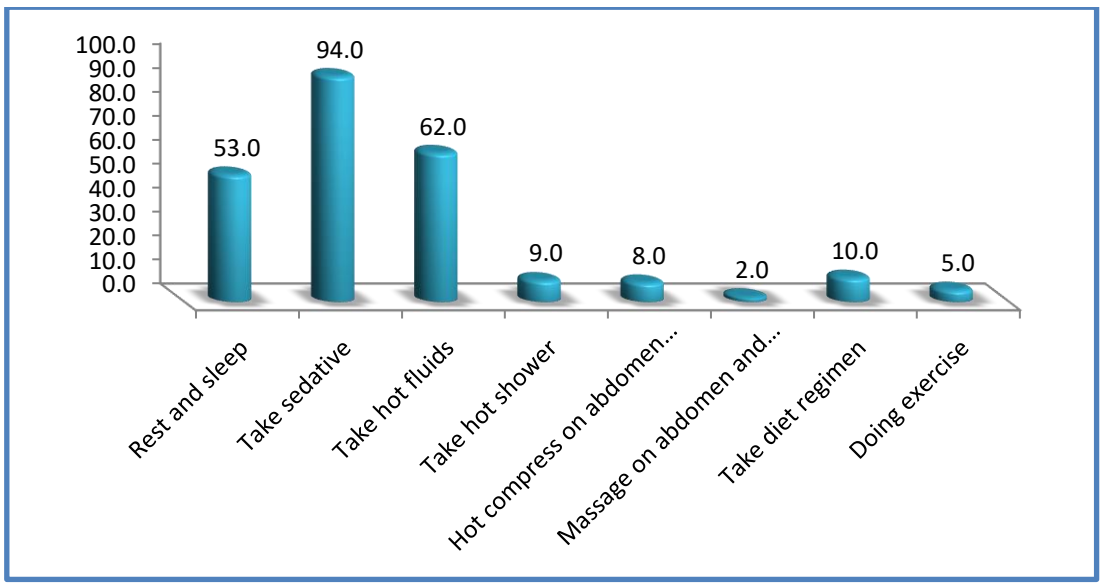

Figure (2): Percentage distribution of studied students regarding ways to decrease pain (n=100).

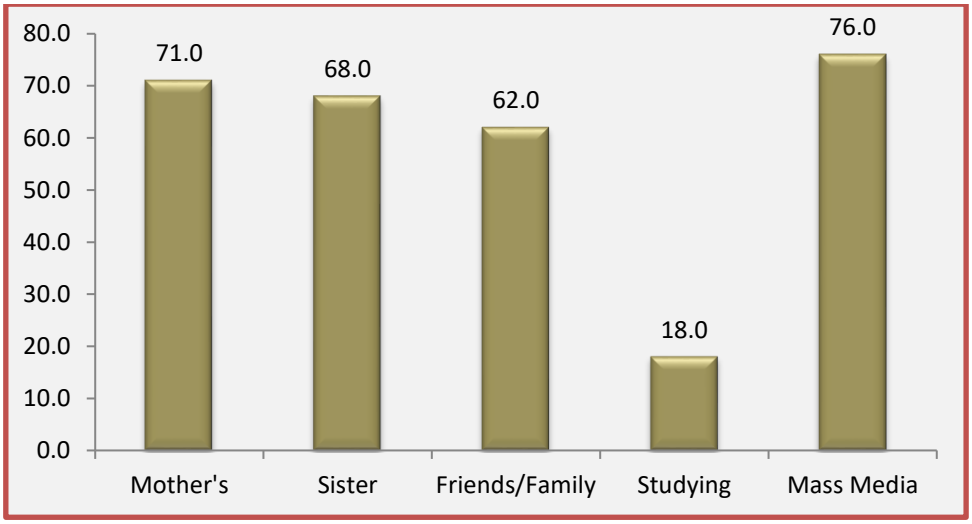

Figure (3): percentage distribution of studied students regarding source of knowledge regarding primary dysmenorrhea

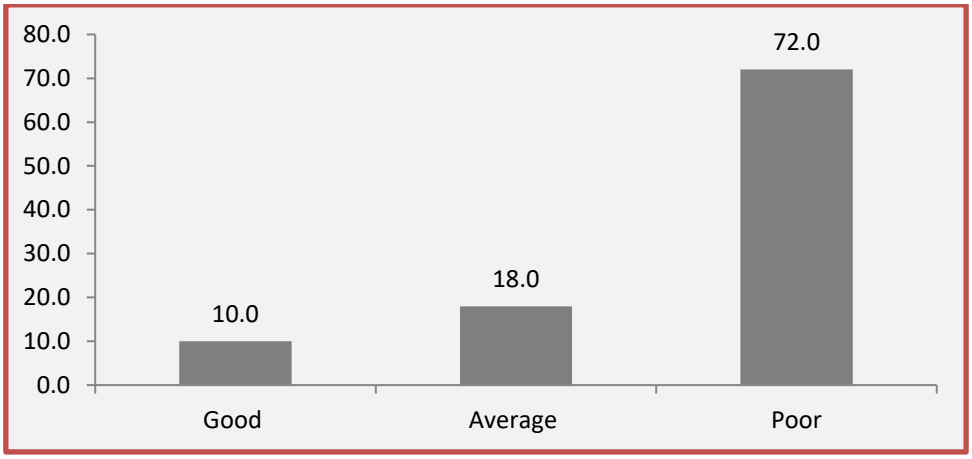

Figure (4): Percentage distribution of studied students regarding total knowledge regarding primary dysmenorrhea(n=100)

Discussion:

Primary dysmenorrhea or painful menstrual cramps, is a common health issue faced by many nursing students. It is not associated with any underlying reproductive health conditions ,unlike secondary dysmenorrhea is a painful cramp that result from an underlying reproductive health issue, such as endometriosis. Students suffering from dysmenorrhea experience intense pain in the abdomen and lower back, making it difficult to concentrate on studies or daily activities leading to absenteesim from classes and clinical training negatively affecting academic achievement and development of practical skills **(Küçükkaya & Başgöl, 2024).**

Nurses play a crucial role in supporting nursing students with dysmenorrhea by assessing symptoms, providing education about the condition, and offering pain management strategies like heat therapy, stress-relief techniques, relaxation technique, reflexology as well as guide students on proper use of pain medications. Nurses also provide emotional support and counsel students on lifestyle changes. If necessary,

nurses refer students to healthcare providers for further evaluation **(IŞIK et al., 2024).**

The current study aimed to assess knowledge regarding primary dysmenorrhea among nursing students. The findings of current study will be discussed under the following sections: general characteristics of studied students, menstrual history and dysmenorrhea and nursing students knowledge.

Concerning general characteristics of studied nursing students, the result of the present study showed that near to half of studied students aged (18:<19) years with the mean and SD 17.76±0.68. From the researchers' points of view this age group represents the beginning of college life, where young female students might experience primary dysmenorrhea more frequently and intensely for the first time. This age group also often faces academic stress and psychological tension, which can worsen the symptoms.

These results were near similar with (**Afifi et al., 2024)** who studied "Effect of William's Flexion Exercises on Menstrual Pain, Depression and Sleep Quality among Nursing Students Primary Dysmenorrhea" and revealed that less than two thirds of studied nursing students were (18:<19) years with the mean and SD 18.05±0.58.Also the results agreed with **(Veena, 2023)** who studied "A Comparative Study to Assess the Effectiveness of oil Massage versus Pelvic Floor Exercise versus Jacobson's Relaxation Technique on Dysmenorrhea and Perceived Stress among Adolescent Girls Studying at Selected Colleges of Bengaluru, Karnataka" and showed that more than half of studied nursing students were between the ages 17-19 years

These results disagreed with (**Mostafa et al., 2023)** who studied "The Effect of Maya Abdominal Massage on Dysmenorrhea Symptoms among Female Nursing Students" which reported that the majority of studied nursing students were between the ages 20-22 years with the mean and SD 21±0.

The current study disagreed with **(Kandari & Massey, 2023)** who studied "Effectiveness of Selected Muscle Stretching Exercises on Reducing Primary Dysmenorrhoea among Student Nurses" and illustrated that more than one third of students were between 19-20 years .These results were in difference with (**Mammo et al., 2022)** who studied "Prevalence of primary dysmenorrhea, its intensity and associated factors among female students at high schools of Wolaita Zone, Southern Ethiopia: cross-sectional study design"and showed that about two third of studied nursing students were between the ages 14-17 years and less than one third of nursing students were between the ages 18-19 years.

Considering residence of studied nursing students and mother's education, the present study showed that about two third lived in rural area and less than two third of students had mothers with secondary education .

The results were near similar to **(Afifi et al., 2024)** who found that more than half of nursing students lived in rural area and about half had mothers with secondary education. Also, the result agreed with **(Mostafa et al., 2023)** who illustrated that more than half of students lived in rural area. While the results disagreed with **(Mammo et al., 2022)** who revealed that the highest percentage of studied students lived in urban area and more than one third of students had mothers read and write.

Regarding weight of studied nursing students, the present study illustrated that the weight of studied students ranged from 42-85 with the mean and SD 58.07±7.50, while the height ranged from 145-180 with the mean and SD 157.38±8.22, and 59% of them had

normal body mass index with the mean 23.57±3.51. From the researchers points of view this may be due to the selected age of the students characterized by ahigh metabolic rate which helps in maintaining on optimal weight. In addition, the curriculum of nursing includes courses such as nutrition and public health which emphasize the importance of healthy habits.

The results agreed with **(Kandari & Massey, 2023)** who found that the height of more than half of students ranged from 153 - 161 and the weight of less than half of students ranged from 47-54 while near to three quarters of students had BMI ranged from 18.5-24.99.

The results disagreed with (**Mostafa et al., 2023)** who illustrated that the height of more than half of studied students ranged from 150-160 with the mean and SD 160.97±3.54, the weight of more than one third of nursing students ranged from 51-60 with the mean and SD 61.05±10.39. Also, the results were incongruent with **(Veena, 2023)** who found that BMI of more than one third of nursing students was overweight.

Regarding menstrual history of dysmenorrhea of studied nursing students the results of current study revealed that the highest percentage of studied students had menarche at age <14 years with the mean ±SD of 13.19±0.62, while the majority of students menstruated 4-6 days with the mean ±SD of 5.101±0.7213, and all students had regular menstruation with interval from 21-35 days while about two third of students had moderate follow of menstruation, also the majority of them used 2-3 sanitary pads.

These results were supported with **(Osman et al., 2024)** who studied "Effect of Self-acupressure on Sanyinjiao acupoint (SP6) on dysmenorrhea among Faculty of Nursing Students" and found that the majority of nursing students had menarche at age less than 14 years, menstrual interval ≥ 28 days and they used 2-3 sanitary pads while less than two third menstruated 3-6 days.

These results were in accordance with (**Azagew et al., 2020)** who studied "Prevalence of primary dysmenorrhea, its intensity, impact and associated factors among female students' at Gondar town preparatory school, Northwest Ethiopia" and reported that more than half of studied students had menarche at age 12-14 years, the majority of students menstruated ≤7days, the highest percentage of students had regular menstruation and about two third used two sanitary pads or less.

The results were near similar to **(Goda et al.,** 2020**)** who studied "Effect of stretching exercise on primary dysmenorrhea among secondary girl students at Assiut city" showed that the highest percentage of nursing students had menarche at age 11-13 years, regular menstruation and the majority of nursing students used 1-3 sanitary pads.

In contrast the results disagreed with (**Masliha, 2024)** who studied "The Effectiveness of Kneading Massage in Reducing Dysmenorrhea Pain in Stikes Aksari Indramayu Students" and reported that less than two third of nursing students had menarche at11years. Additionally, (**Mammo et al., 2022)** showed that about two third of nursing students had menarche at age 13-14years, more than half menstruated 3-7 days and more than half of nursing students had irregular menstruation. Also this study agreed with the current study in that the majority of nursing students had menstruation with interval from 21-35 days .

Pertaining to history of dysmenorrhea, the result of current study illustrated that more than one quarter of studied nursing students had pain lasts for two days and equal with

week before menstruation, this pain appear in more than half of studied students suddenly and about two third of studied students lasts more than 36 hours with the mean ±SD 43.36±6.95, it also affected more than one site in the majority of studied students, and had effect on students attendance and achievement ,this is due to similar age group and exposure to similar academic conditions or stressors. From the researchers point of view, pain lasts for two days and equal with week before menstruation, this result could be related to that is the normal physiological changes for most females that associated with menstruation and menstrual cramps are a usually begins prior or with the onset of menstruation.

These results were in agreement with **(Alateeq et al., 2022)** who studied "Dysmenorrhea and depressive symptoms among female university students: a descriptive study from Saudi Arabia" revealed that about three quarters of nursing students had pain lasts for two days and near to half of students' dysmenorrhea affected their academic achievement. Also, these results agreed with **(Mesele et al., 2022)** who studied "Impact of dysmenorrhea on academic performance among Haramaya University undergraduate regular students, Eastern Ethiopia" illustrated that dysmenorrhea had effect on about three quarters of nursing student's attendance and achievement.

The result disagreed with (**Azabu et al., 2023)** who studied "Effect of a Gym Ball Exercise Program on Dysmenorrhea in Nursing Students of a Selected College in Mangaluru, India: A Quasi-experimental Study" revealed that three quarters of nursing students had pain lasts for 1st day of menstruation and less than to third of students had pain lasts for 8hours while the majority of students had the pain intermittent and in the lower abdomen. Also, these results were contradicted with **(Ngwasi, 2021)** who studied "Prevalence of Dysmenorrhea and its Effects on Quality of Life among Undergraduate Female Students in Near East University" found that about one third of nursing students had pain lasts for 1st day of menstruation and the majority of nursing students lasts for 1-3days.

Increasingly, the result of current study came on the opposite of **(Osman et al., 2024)** who reported that the majority of nursing students had pain lasts for 1st day of menstruation and more than two third of students had the pain on the lower abdomen only. In addition, the result was contradicted with (**Duman et al.,2022)** who studied "Risk factors for primary dysmenorrhea and the effect of complementary and alternative treatment methods: Sample from Corum, Turkey" illustrated that about one third of nursing students had pain lasts for 8-24 hours.

Also, the result disagreed with (**Abdelazim et al., 2020)** who studied "Prevalence of Dysmenorrea and its Effect on Student's Quality of Life" revealed that about one third of nursing students had pain starts with menstruation and lasts for 24 hours while, this study agreed with the current study in that the pain affected half of students' academic achievement.

Regarding ways to decrease pain of primary dysmenorrhea, the result showed that the majority of studied nursing students used sedatives. This is due to nursing students often face high academic demands leading to increased levels of stress which can exacerbate the pain associated associated with primary dysmenorrhea and many students also lack awareness of non-pharmacological pain relief methods.

These results agreed with **(Amin et al., 2024)** who studied "The hidden link: dysmenorrhea, emotion regulation, and attitudes toward marriage in female nursing

students" and found that near to half of nursing students used sedatives to decrease pain of dysmenorrhea. In addition to (**Almutairi et al., 2020)** who studied "Non-pharmacological methods to relieve dysmenorrhea among students of health colleges in Saudi Arabia" and mentioned that near to half of nursing students used sedatives to decrease pain of dysmenorrhea. Also, **(Kandari & Massey, 2023)** reported that more than half of nursing students used sedatives to decrease pain of primary dysmenorrhea.

On the other hand, the results were contradicted with **(Alateeq et al., 2022)** who studied "Dysmenorrhea and depressive symptoms among female university students: a descriptive study from Saudi Arabia, The Egyptian Journal of Neurology" illustrated that more than half of nursing students were not use sedatives to decrease pain of dysmenorrhea. Also, the findings were indifference with **(Elverişli et al .,2023)** who studied "Comparison of the efficacy of pharmacological and nonpharmacological treatments in women with primary dysmenorrhea: randomized controlled parallel-group study" and reported that more than half of nursing students used hot application, herbal tea, lying in prone position, and assuming fetal position to decrease pain of dysmenorrhea. Besides, **(Mesele et al., 2022)** who found that about three quarters of nursing students turned to sleep as a way to alleviate the pain of dysmenorrhea.

Considering knowledge of studied nursing students regarding dysmenorrhea the result showed that about three quarters of studied nursing students had poor knowledge regarding primary dysmenorrhea. From the researchers' point of view, this may be due to limited coverage of menstrual health in their early nursing education, leading to gaps in understanding. Additionally, reliance on cultural beliefs, misinformation from non - scientific sources and lack of personal experience or awareness about the condition may contribute to their misconception

Moreover, **(Santoso & Christiany, 2024)** who studied "Effectiveness of Animated Video Education in Improving Knowledge and Attitudes towards Primary Dysmenorrhea Management among Students in Surabaya" and illustrated that near to half of nursing students had poor knowledge about dysmenorrhea. In addition, the results agreed with **(John, 2021)** who studied "Effectiveness of Information Booklet on Knowledge Regarding Dysmenorrhea Among Nursing Students at Selected Nursing College, Bangalore" and revealed that more than one third of nursing students had in adequate knowledge about dysmenorrhea. Also, the results were similar with **(Dengeingei et al.,2020)** who studied "Assessing knowledge and practice regarding the management of dysmenorrhea among students at university of Namibia Rundu campus" and reported that the majority of nursing students had poor knowledge about dysmenorrhea.

On the other hand the results was contradicted with (**Aulia et al., 2024)** who studied " The Influence Of Reproductive Health Education On Adolescent Girls On The Level Of Knowledge About Dysmenorrhea" found that more than half of nursing students had adequate knowledge about dysmenorrhea .Also, (**Astuti et al., 2024)** who studied " Impact Of Dysmenorrhea Management Health Education On Adolescent Girls' Knowledge And Attitude About Dysmenorrhea Management" revealed that more than half of nursing students had moderate knowledge of dysmenorrhea.

Regarding source of knowledge about primary dysmenorrhea, the result showed that about three quarters of studied nursing students had knowledge about dysmenorrhea from mass media and about less than three quarters of nursing students had knowledge from mother, this may be due to the majority of menstruating females do not seek medical advice for severe menstrual cramps and may be ignorant of effective treatment options. Cultural norms, beliefs, and practises were discovered to have an impact on females' ability to manage menstrual related complains properly and with dignity. For the reason, adolescent students must be aware of appropriate self-management measures in order to lessen the uncomfortable symptoms that occur on a monthly basis and decrease negative effect of menstrual cramps on their ' quality of life.

This result was in agreement with **(Goda et al., 2020)** who reported that half of nursing students had knowledge about dysmenorrhea from mothers. Also, the findings of current study were consistent with **(Mohamed et al., 2020)** who studied "Traditional practices self-reported by nursing students to relieve dysmenorrhea, Egyptian Journal of Health Care" and revealed that half of nursing students asked mother about dysmenorrhea.

The results disagreed with (**Küçükkaya & Başgöl , 2024)** who studied "The effect of listening to music and drawing on coping with dysmenorrhea complaints in nursing students: randomized controlled trial" and found that near to three quarters of nursing students had knowledge about dysmenorrhea from nurse.

Conclusion:

Based on the results of the present study, it was concluded that the majority of studied nursing students had poor knowledge about primary dysmenorrhea.

Recommendations:

1. Implement targeted educational programs to enhance nursing students' knowledge about primary dysmenorrhea, including its causes, symptoms, and treatment options.
2. Conduct periodic assessments to evaluate and address gaps in nursing students' understanding of dysmenorrhea, ensuring they receive ongoing education.

Further studies:

1. Research could explore the role of peer support groups in enhancing awareness and providing coping strategies for dysmenorrhea among nursing students.
2. Studies could investigate the influence of lifestyle changes (e.g., exercise, diet, stress management) on the severity of dysmenorrhea symptoms in nursing students.

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تقييم معلومات طالبات كلية التمريض فيما يتعلق بعسر الطمث الأولى

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يؤثر عسر الطمث الأولي سلبًا على جودة حياة الطالبات في كلية التمريض. فهي تقلل من أدائهن الأكاديمي، وتضعف تركيزهن في الصفوف الدراسية، وتزيد من نسبة الغياب لذلك هدفت الدراسة الى تقييم معلومات طالبات كلية التمريض فيما يتعلق بعسر الطمث الأولى،وقد تم استخدام دراسة وصفية لتحقيق هذه الدراسة، وأجريت الدراسة في كلية التمريض جامعة بنها، و قد شملت الدراسة على عينة غرضيه من طالبات كلية التمريض مكونة من ١٠٠ طالبة فى الفرقة الدراسية الأولى ،وقد أسفرت النتائج على أن ثلاث أرباع الطالبات المدروسات لديهم معرفة ضعيفة فيما يتعلق بعسر الطمث الأولى ،وقد لخصت النتائج أن غالبية الطالبات المدروسات لديهن معرفة ضعيفة بعسر الطمث الأولي، وقد أوصت الدراسة على تنفيذ برامج تعليمية هادفة لتعزيز معرفة طالبات التمريض بعسر الطمث الأولي، بما في ذلك أسبابه وأعراضه وخيارات علاجه.