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## Assessment of Knowledge and Hygienic Practices Regarding Menstruation for Visually Impaired Adolescent Girls

Manar Fathy Heiba<sup>1</sup>, Fathia Mahmoud Abd El-menim Sayed<sup>2</sup>, Hend Salah-Eldin Mohammed<sup>3</sup>, Gehan Ahmed Elbahlwan<sup>4</sup>.

*Assistant Professor of Maternity, Gynecology and Obstetrics Nursing- Faculty of Nursing- Port Said University, <sup>2</sup>Assistant Lecturer of Maternity, Gynecology and Obstetrics Nursing- Faculty of Nursing- Port Said University, <sup>3</sup>Professor of Obstetrics and Gynecology Nursing-Faculty of Nursing - Zagazig University, <sup>4</sup>Assistant Professor of Maternity, Gynecology and Obstetrics Nursing- Faculty of Nursing- Port Said University*

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### ABSTRACT

**Background:** Menstruation is part of the female reproductive cycle starts when girls become sexually mature at the time of puberty. A visually challenged female faces daily extra challenges for bearing their everyday skills including menstruation hygiene management. Hygienic practices during menstruation are very important as poor menstruation affects the health by increasing vulnerability to infections. **Aim:** The study was aimed to assess knowledge and hygienic practices regarding menstruation for visually impaired adolescent girls. **Subjects and method: Research design:** A descriptive research design was used. **Setting:** The study was carried out in El- Nor and El- Aml schools in Port-Said city & Damietta city., which included two schools one school at each city. **Sample:** Purposive sampling included 50 visually impaired menstruated adolescent girls (27) visually impaired girl at Port-Said City and (23) visually impaired girl at Damietta city. **Tools of data collection:** first, Structured Interviewing Questionnaire, second, Health practices during menstruation, and third, Girls behaviors and restrictions during menstruation. **Results:** More than three quarters of the studied visually impaired adolescent girls had poor level of total knowledge regarding menstruation and the majority of them had poor level of health practices during menstruation. **Conclusion:** There were lack of visually impaired adolescent girls' knowledge and practices regarding menstruation. **Recommendations:** Audio educational sessions should be applied to raise awareness and improve health practices of visually impaired adolescent girls regarding menstruation.

**Keywords:** Adolescent girls, Hygienic practices, Knowledge, Menstruation, Visually impaired.

## **INTRODUCTION**

The process of menstruation is crucial aspect of reproduction of female that begins when girls become reproductively mature at the puberty time. The female's reproductive health is affected by reaction and dealing to menarche by the girl, her perception, behaviors, attitude during menstruation (Mohamed, Ragheb & Ibrahim, 2022).

Menstruation process and menstrual behaviors continue to be hampered by social stigmas and cultural norms causing teenage girls staying un aware about the scientific evidence and sanitary health procedures, which sometimes result into negative health outcomes. In most societies, menstruation is still seen as something filthy or unclean. Awareness determines how a person responds to their period. (Belayneh & Mekuriaw, 2019).

Most adolescent girls have lack knowledge about menarche and all aspects of its management and reproductive health. So, adaption with the puberty changes is very difficult among them. Further, Visual impairment female adolescent girls are more challenged as it is difficult for them to cope easily with such changes (Arunachalam, Shetty, Rajendran, Eswaran & Karthik, 2022).

Visual impairment is an abnormal health and if untreated, leads to serious problems with vision nor loss during infancy or early teenage years that might ultimately turn into persistent. Decreased / loss vision may result in a substantial and persistent negative influence all around their life matters (Gilbert& Foster, 2020).

Hygienic practices during menstruation are important for women's health, as it has an impact in their health in the context of heightened risk to infections of the genital system. Nowadays large numbers of women are complains from genital infections. The genital tract infection has a negative influence on their reproductive health. Reduced risk of infection exposure and its repercussions are associated with improved understanding of hygiene during periods and secure wellness practices (Vishwakarma, Puri & Sharma, 2021).

According to WHO, average 5% of the global people i.e. 1.5 million are aged less than 15 years, who are have visual impairment. The visually impaired needs performing

their daily activities of life. Hygienic practices during menstruation are considered a turning point to adolescent girls with visual impairment. They need guidance to different aspects of menstrual hygiene as; method of sanitary pads disposal and clothes washing and drying. So, it's an important matter to increased knowledge and its safe practices regarding menstruation that help girls in coping with such matter (Prema et al., 2020).

Hygienic practices during menstruation are defined as preserving of hygiene during menstruation such as washing hands, bathing during cycle of menstruation, genital care (cleaning techniques, sanitary pads using and, disposal, drying methods), massage of abdomen, cloths changing, cloths washing with soap and water, methods of relieving abdominal pain and psychological symptoms (e.g. warm compress using and doing appropriate types of exercise) throughout menstruation days to assist in maintenance of reproductive health and prevention of gynecological problems (Munro, Hunter, Hossain & Keep, 2021).

Nurses play an effective role in providing visually impaired adolescent girls with sufficient information regarding hygienic practices that was needed during menstruation to maintain themselves healthy (Amr, 2021). An essential component of health education for girls with visual disabilities is nursing instruction on feminine hygiene and symptom management (Amr, 2021).

The nurse helps in providing health care services to school-students, teachers and other staff and performs different screenings &facilitate referrals coordination whether to the home care or private healthcare places. The school nurse connects between persons of school, family, community and providers of healthcare to advocate for access to health care services and maintain a healthy school environment (McGregor& Unsworth, 2022).

### **Significance of the Study**

Health and Population Ministry and World Health Organization (WHO) (2019) noted that people with visual disabilities approached in Egypt to three million number. In accordance with the axis of number five of the 2030 Egyptian National Strategy's social component, visually impaired adolescent girls are marginalized important segments in society. So, providing care and support for them is important for reaching to equal rights for everyone in the neighborhood.

Visually impaired adolescent girls unable to carry out their own activities Resulting from a decline in vision, as well limited capability to acquire learning from viewing and making their personal care routines. Assessment of the visually impaired adolescent girls' knowledge and practices level regarding menstruation is highly essential. Egyptian research evaluating the menstrual knowledge and practices of teenage females with visual impairment are so limited thus, this study was conducted.

## **AIM OF THE STUDY**

The current research was aimed to assess knowledge and hygienic practices regarding menstruation for visually impaired adolescent girls.

### **Objectives of the study**

- 1- Assess knowledge regarding menstruation for visually impaired adolescent girls.
- 2- Assess hygienic practices regarding menstruation for visually impaired adolescent girls.
- 3- Find correlation between knowledge and hygienic practices regarding menstruation for visually impaired adolescent girls.

## **SUBJECT AND METHOD**

### **A. Technical design**

#### **Study design**

To conduct this study a descriptive design was used.

#### **Study setting**

The current study was performed in Al- Nor and Al- Aml schools in Port-Said city & Damietta city which included two schools one school at each city.

#### **Study Sample**

A purposive sample of 50 adolescent girls with visual impairment and menstruated (27) visually impaired girl at Port-Said City and (23) visually impaired girl at Damietta city were included irrespective to the reason of their disability affiliated to

port said and Damietta cites and participating in the research and meeting the inclusion standards while attending the aforementioned institutions.

### **Inclusion Criteria**

The visually impaired adolescent girls in the previous mentioned schools were incorporated into the study under the following conditions:

- Range of ages from 12-19 year.
- The visually impaired girls who had the first menstruation.
- The visually impaired girls who unmarried.
- The visually impaired girls who able to interact.

### **Exclusion criteria**

- The visually impaired girls with speech or verbal disability.
- The visually impaired girls with mental impairment.

### **Data collection tools**

In this study, two tools were utilized:

#### **Tool I: Structured Interviewing Questionnaire**

The multiple-choice questions were created by the researcher after examining pertinent material by Mohamed (2018) and the advice of industry professionals. It was divided into four primary sections to evaluate the following:

**Part I: Socio demographic characteristics of the studied visually impaired girls.** It was made up of (Twelve) multiple-choice questions to gauge the socioeconomic traits of the females who were being investigated, and these questions comprised 7 domains assessing (girls age, education, parental education & working condition, number of family, family ownership and family income).

**Part II: Characteristics of menstrual cycle and health complains among the studied girls.** This part included five multiple-choice questions in this section about the cycle of menstruation features in girls as menarche age, regularity of the period, length of flow, and intermenstrual interval. Additionally, this portion included (two) questions with

multiple choices for evaluating the period-related complaints of participants (premenstrual and monthly symptoms). Additionally, (two) multiple-choice questions were added to examine current health complaints, such as vaginal discharge characteristics according to its odor and consistency, as well as any accompanying infection-related symptoms like irritation.

### **Part III: Girls' knowledge regarding menstruation**

It used to evaluate level of knowledge about menstruation among visually impaired adolescent girls. It contained (fifteen) questions with several options and (four) questions that are open-ended regarding; anatomy of the female genital system, physical changes during puberty, age of menarche, definition of menstruation, source of menstrual blood, normal menstrual interval and duration, manifestations that are related to menstruation, complication of neglecting menstrual hygiene, herbs and foods to be eaten and to be avoided during menstruation.

### **Scoring system for assessing the girls' knowledge regarding menstruation**

According to the items of interviewing questionnaire, scoring system was graded; the answers of the girls were evaluated by the researcher according to model responses that the investigator generated in light of the scientific literature. Every question ranged from 0 up to 8 marks according to answers of each question, Each point was scored as One mark for correct answer and zero for incorrect answer and response of didn't know. For open ended questions, the girls have the chance to give their answers and mention all they want. The answer was evaluated by the researcher and was scored according to correctness of the answer.

Depending on the percentage of correct responses by each girl, 57 marks, or 100%, were added together to determine the total score for all knowledge-related questions. This score was then divided into three tiers as follows:

- Poor =less than 50% of the total score (<28.5marks).
- Fair= (50 % to less than 75% of the total score (28.5 to <42.75 marks).
- Good= (equal to or greater than 75% of the total score (42.75:57marks).

**Part V:** It included (four) questions regarding source of information of girls about menstruation, time of receiving this information and challenges that prevent them from seeking health care services and advice regarding menstrual problems.

**Tool II: Health practices during menstruation:** Mohammed (2018) created and the researcher modified this tool. This tool is a diagnostic tool for evaluating the visually impaired adolescent girls' health practice during menstruation. The tool was into Arabic language.

It included two sections:

**(A): Health practices among the studied girls regarding menstrual hygiene care** which containing (fifteen) questions in the form of numerous selection on the hygiene precautions for the area of perineum cleaning and cleaning procedures, cleaning direction, dryness of perineum, showering when on menstruation, kinds of sanitary towels utilized for periods and number of replacing it, the usage of powdered talcum and perfume placed on genital area, pubic hair removal, washing of hands, kind of pants, methods of cleaning it and methods of disposal for menstrual towels.

**(B) Healthy nutrition during the menstruation** which encompassing (eleven) questions in a form of multiple choice regarding the nutrition during menstruation related to; types of food eaten and avoided during menstruation and drinks that should be drunk and inhibited at the time of menstruation.

**Scoring system for the students' health practices regarding menstrual hygiene:**

Answers were graded and coded as each good practice (healthy) evaluated as (one) mark and each poor practice (unhealthy) evaluated as (zero). The final rating to girls' of menstrual practices of hygiene during menstruation equal 26 grades, which equals 100 percent.

Following are the divisions for the overall practice rating:

- Healthy (Well) practice  $\geq 75\%$  (more than or equal to 19.5 marks).
- Unhealthy (poor) Practice  $< 75\%$  (less than 19.5 marks).

## **B-Operational design**

The recent study's operational design involved a stage of planning, content validity and reliability, a pilot study, and fieldwork.

### **1. Preparatory phase**

In order to construct the instruments for gathering information, a thorough evaluation of the relevant existing nationwide and globally studies, as well as conceptual comprehension of numerous subject components, was conducted..

### **2. Content validity of the tool**

The researcher created the data gathering instruments, and a total of five professors with expertise in maternity, obstetrics, and gynecology nursing from the faculties of nursing and medicine at Port-Said University and Suez Canal University evaluated the information provided for validity. It was carried undertaken to determine the instruments' suitability, comprehension, applicability, and clarity. Their suggestions on the uniformity and format of tool layout were solicited. To delete the element of (colour of vaginal discharge and redness of vestibule), the necessary modifications were made.

### **3. Reliability of tool**

Cronbach's alpha coefficients calculations were used to ensure the dependability. It's value scored (0.76), which indicated that reliability is high.

### **4. Pilot study**

The ten percent of the research sample that made up the pilot study contained five randomized girls from a pair of distinct schools. It was carried out to determine the designed instrument's significance, conciseness, and usability and to determine how long it would take to complete the survey. Due to changes made to the survey form, which included certain items being modified and others being eliminated, particularly in the sections pertaining to girls' knowledge as well as practices, the pilot study respondents were removed from the experiment's sample.



## **5. Preparation phase**

The author made the instruments after looking over the pertinent literature to feed the study, after which a pilot study was conducted to evaluate the tools' practicality after a team of professors with expertise in Obstetrics and gynecology, and nursing confirmed validity of the tool's content.

## **6. Field work**

From the start of the data collection process until the end, it took roughly six months starting at the beginning October month 2021 to of March month 2022 ending . After the tools were prepared, according to the established criteria, the study sample was chosen. After that, the baseline data was collected. The visually impaired adolescent girls were interviewed upon presenting oneself and gaining permission from them to take part in the present study. after clearing the study aim and then the questionnaire sheet was fill out by the researcher. All collected information regarding level of knowledge, practices and behaviors of menstruation were assured to be confidential. In accordance with the daily timetable of the school, gathering data from the student females was done during the break. The schools were visited by the researcher three days per week.

Eight groups were formed from the study sample. each school has four groups, each group ranged from 5-6 students girls according to the total number of girls selected from each. The researcher coordinated with school manager in obtaining information about students' schedules and free-times of classes. In addition, the researcher coordinated with the teachers to be able to interview student girls.

The basic assessment was performed, the researcher introduced herself to the studied girls and asked them about all structured questionnaire items to evaluate their familiarity with and adherence to menstrual hygiene practices. The basic assessment items was collected in about fifteen minutes time for each participant to be fully collected by the researchers and a rest for half an hour was obtained.

### **(C) Administrative design**

Official approval from the appropriate authorities was sought in order to perform the study. Prior to starting the research process, the researcher obtained an governmental document from the faculty of nursing, Port Said University offered to the special education directorate in Port-Said and Damietta cities to have an consent to be able to conduct the study. The researcher received official authorization from the special education directorate was emitted and addressed to obtain the agreement from the security directorate, then it directed to the mangers of the two Al-Nor and Al-Aml schools to facilitate the data collection. Oral permission was received by the researcher from the manager of each school to include students in the study. The researcher took a verbal agreement from every participant girl when data were being collected in the study after explanation of the study purpose was identified to each participant.

### **Ethical Consideration**

Prior starting the study, the scientific research ethical commission in the nursing faculty at Port-Said University gave its clearance. The study's purpose was clarified to the directors of Al-Nor and Al-Aml Schools to obtaining their permission to do this research. Oral agreement was gotten from the visually impaired adolescent girls. The study's purpose was clarified to every participant For being aware about the significance of her involvement. The visually impaired adolescent girls were provided with a brief explanation about the study to ensure for security of acquired information and it was only used to conduct the study. The data collection process didn't hinder the consistency of the research work. The ability to refuse participation in a study anytime were telled to the visually impaired adolescent girls.

### **D-Statistical design**

With the use of the International Business Machines Statistical Package for the Social Sciences (IBM SPSS) software package version 20.0, information were input into the computing device and analyzed. IBM Corp., Armonk, New York Quantity and percentage were used to identify the qualitative findings. The level of normality of the distribution was examined using the Shapiro-Wilk test. The range (minimum and maximum), mean, standard deviation, and median were used to characterize data that is

quantitative. At the threshold of five percent, the statistical value of the findings was determined.

## RESULTS

**Table (1)** Illustrates that over half of those who participated in the research (60.0%) were in aging between 12-14 of decade and most of them (82.0%) of them at preparatory stage. Regarding education and culture of parents, the dads of more than half (58.0%) of the girls in the study received secondary school education, while in excess of a third of the studied girls' mothers (42.0%) had secondary education. As regard to occupation of the studied girls fathers and mothers, the majority of their fathers (92.0%) were working and most of their mothers (84.0%) were housewives.

**Table (2)** Reveals that nearly half (48.0%) of the research females had their menarche between the ages of 13 and 15. Regarding reaction to menarche, most of them (80.0 %) of them felt fear from first menstruation. Near to three quarters of the studied girls (74.0%) had regular menstruation. Concerning duration of menstruation, more than two third of the studied girls (68.0%) had their menstruation from 3 to 7 days.

**Table (3)** Illustrates that of more than three quarters of the girls who participated in the study (76.0%) possessed a restricted overall understanding on all aspects related to menstruation. While, each of them hadn't good entire level of awareness or knowledge about all aspects related to menstruation.

**Table (4)** Portrays that the overwhelming majority of the adolescent girls who were studied who were visually impaired (92.0%) had poor level of healthy practice during menstruation. While, the minority of them (8.0%) had good level of healthy practice during menstruation.

**Table (5)** clarifies that between the examined girls' total score levels of knowledge, total score levels of health practice, and total score levels of behaviors and constraints, there was a positive association with statistically and highly statistically significant differences, while ( $P < 0.001$ ).

**Figure (1)** represents that the majority of the visually impaired adolescent girls who participated in the study (80.0%) said that their mothers were the people source of information who taught them about menstruation.

**Table (1):** Distribution of the studied visually impaired adolescent girls according to their personal characteristics (n = 50)

Personal characteristics	No.	%
<b>Age</b>		
12-14 year	30	60.0
15-17 year	16	32.0
18-20 year	4	8.0
<b>Mean ± SD</b>	<b>14.36 ± 2.14</b>	
<b>Current educational stage</b>		
Preparatory stage	41	82.0
Secondary stage	9	18.0
<b>Education and culture of parents</b>		
<b>Father</b>		
Not read and write	7	14.0
Read and write	6	12.0
Secondary	29	58.0
University	8	16.0
High education	0	0.0
<b>Mother</b>		
Not read and write	15	30.0
Read and write	6	12.0
Secondary	21	42.0
University	8	16.0
<b>Occupation</b>		
<b>Father</b>		
Not work	4	8.0
Work	46	92.0
<b>Mother</b>		
House wife	42	84.0
Work	8	16.0

**Table (2):** Distribution of the visually impaired adolescent girls according to menstrual features (n = 50)

Menstrual features	No.	%
<b>Age of Menarche (in years)</b>		
10-11 year	13	26.0
12 year	13	26.0
13-15 year	24	48.0
Mean ± SD.	12.50 ± 1.46	
<b>Regularity of the menstruation</b>		
Yes	13	26.0
No	37	74.0
<b>Frequency of menstruation</b>		
From 21:35 day	37	74.0
Irregular interval	13	26.0
Mean ± SD.	27.54 ± 4.38	
<b>Duration of menstruation</b>		
Less than 3 days	6	12.0
From 3-7 days	34	68.0
More than 7 days	10	20.0
Mean ± SD.	5.18 ± 1.32	

**Table (3):** Distribution of the studied girls according to their knowledge regarding menstruation (n = 50)

Knowledge regarding menstruation items	Frequency (No)	Percent (%)
<b>Biological health aspects of menstruation</b>		
Poor level (<50%)	38	76.0
Fair level (50 – <75%)	12	24.0
<b>Menstruation</b>		
Poor level (<50%)	24	48.0
Fair level (50 – <75%)	26	52.0
<b>Complaints and complications of neglecting menstrual hygiene</b>		
Poor level (<50%)	35	70.0
Fair level (50 – <75%)	15	30.0
<b>Proper nutrition during menstruation</b>		
Poor level (<50%)	24	48.0
Good level (≥75%)	26	52.0
<b>Overall Knowledge regarding menstruation</b>		
Poor level (<50%)	38	76.0
Fair level (50 – <75%)	12	24.0

**Table (4):** Distribution of the studied girls according to their overall health practices during menstruation (n = 50)

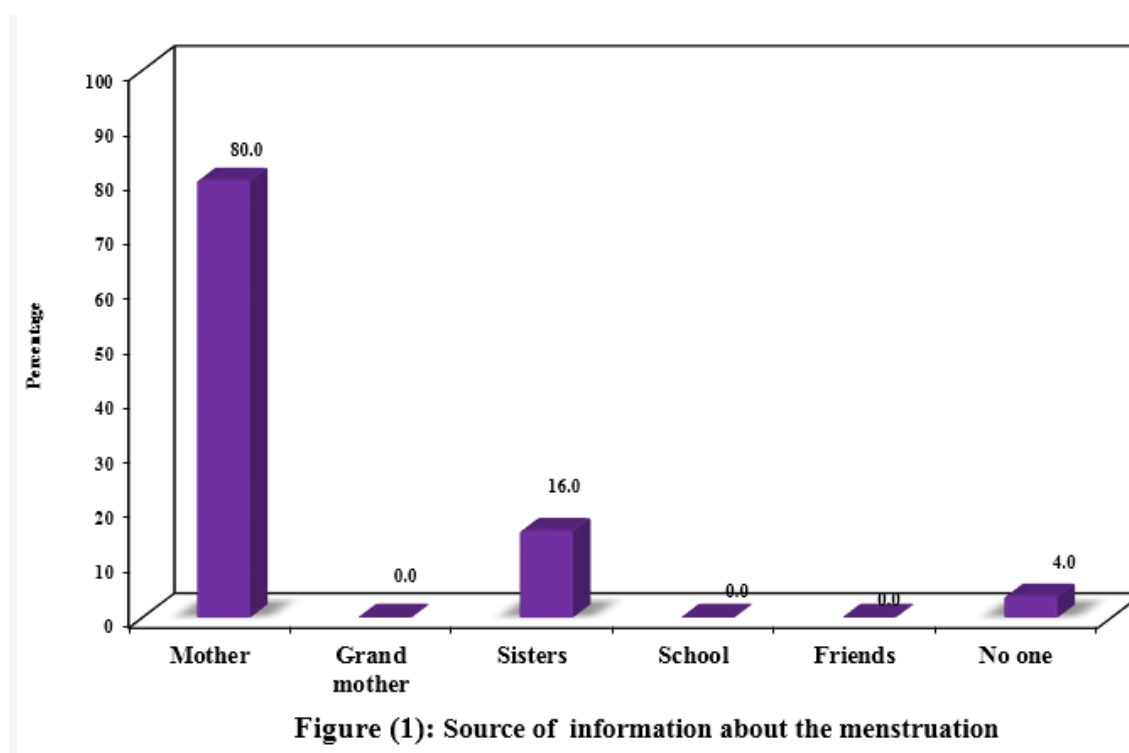
Health practices during menstruation	No.	%
<b>Hygienic practices</b>		
Unhealthy (Poor) (<75%)	39	78.0
Healthy (Good) ( $\geq$ 75%)	11	22.0
<b>Nutritional practices</b>		
Unhealthy (Poor) (<75%)	50	100.0
<b>Overall Health practices during menstruation</b>		
Unhealthy (Poor) (<75%)	46	92.0
Healthy (Good) ( $\geq$ 75%)	4	8.0

**Table (5):** Correlation between knowledge total score level regarding menstruation, health practices level during menstruation (n = 50)

Variables		Knowledge regarding menstruation
Health practices during menstruation	R	0.376*
	P	0.007*

r: Pearson coefficient

\*: Statistically significant at  $p \leq 0.05$



**Figure (1)** demonstrates that the majority of the visually impaired adolescent girls who participated in the study (80.0%) said that their mothers were the people source of information who taught them about menstruation.

## DISCUSSION

Visually impaired individuals are those who have eyes vision abnormalities. These abnormalities may be afflictions of the visual system and vision functions that are either hereditary or accidental (WHO a, 2019). There are more visually handicapped adolescent girls than blind adolescent boys, according to reports. Because of the physiological changes that happen in adolescent girls, due to their limitations, they may face a number of difficulties and require assistance with their daily demands and self-care routine. Any type of disability is considered smirch for the person with disability and may expose to different difficulties especially when they become menstruating (Wilbur, Torondel, Hameed, Mahon & Kuper, 2019).

The monthly period is a crucial reproducing phase of life that can help a girl transition from infancy to the stages of womanhood. The menstrual cycle is a very delicate milestone in a woman's reproduction, yet typically developing adolescent girls may not be mindful of how to handle it or cope with it. (Flagg & Pillitteri, 2018). So, this study was conducted to assess knowledge and hygienic practice regarding menstruation for visually impaired adolescent girls.

The present study shows that near to half of the studied girls had their menarche at the age of thirteen to fifteen years. Regarding reaction to menarche, most of them of them felt fear from first menstruation. Nearly half of the girls in the study had scheduled periods. Concerning duration of menstruation, more than two third of the menstrual cycles of the investigated girls ranged from three to seven days.

These findings concur with those of the study that was done by Ahmed, Salem, El feshawy and Amr (2021) which entitled "Audio-Drama nursing intervention utilizing peer education on menstrual hygiene and sickness management among blind adolescents" and found that more than half of the girls in the study more than three quarters of them had periods lasting three to five days before turning fourteen. In terms of menstrual interval, twenty eight to thirty-five days were the range for half of the group under study. The majority of the girls in the study had modest amounts of monthly blood in terms of blood volume.

Also, these results are approved by another study carried out by Faheim, Ahmed, Abdelhafez, Mohamed and Ahmed (2022) that displayed that half of the teenage girls students who were blind had their menarche of twelve to fourteen age years, A little over half of them had a monthly menstrual interval of more than 30 days and five days during menstruation.

The results of the present research showed that the majority of visually impaired adolescent girls claimed that their mothers were the primary source of information about menstruation. This result may be due to visually impaired adolescent girls had limited social relationship just with peers in the class, their members of family, and schoolteacher due to their disabilities and their mothers are considered the main secure source to everything at their life.

This result is in agreement with a study done by Abd Elmegaly, Attia and Soliman (2019) demonstrated that mothers of the students are represented the basic source of information regarding all aspects of productivity at one quarter of the students' sample. In the same way, Ahmed et al., (2021) shown that the majority of visually impaired young adult girls in schools consulted their moms for information on menstruation, whereas a smaller proportion turned to staff members and the mass media.



Concerning total level of knowledge regarding all aspects related to menstruation among the studied visually impaired adolescent girls, the findings of the current study clarified that more than three quarters of them had poor total of level knowledge regarding all aspects related to menstruation.

That's may be because of the majority of the material used in this study came from the mother, and the school staff did not place much emphasis on the requirements of adolescent schoolgirls with regard to menstruation, which may be why the results are what they are. Menstruation can also be viewed as a delicate subject, and not all mothers are prepared to provide their daughters with accurate information, particularly those who have low levels of education and poor social conditions.

This result agrees with Arunachalam et al., (2022) who indicated that the teenage girls who were blind had little understanding of and experience with menstruation hygiene. On the contrast, this discovery is in difference with Ahmed et al., (2021) reported that nearly half of visually impaired female students had strong general knowledge.

Concerning total level of health practices among the studied visually impaired adolescent girls during menstruation, the majority of them practiced poor levels of health throughout menstruation according to the current study. According to the researcher view, one of the key factors contributing to the visually impaired adolescent girls' lack of knowledge and, consequently, their deficiency of awareness regarding proper ways to develop a good level of menstrual health practices, is the low level of learning about the period offered to those girls.

In the same line, Dündar and Özsoy (2022) showed that visually impaired women reported managing menstruation can be challenging, hygienic practices during menstruation were not at a desired level. Additionally, this finding agrees with Eljo, (2020) who clarified that most of the subjects reported lack of menstrual hygiene practices.

Regarding correlation between knowledge total score level regarding menstruation, health practices total score level and behaviors and restrictions total score level during menstruation, the present study revealed that the study's girls' total score

levels of knowledge, total score levels of health practice, and total score levels of behaviors and limits all correlated favorably.

This result could be due to with improving the studied visually impaired adolescent girls knowledge leading to a positive impact on their behaviors and bring them out of misunderstanding, cultural taboos and restriction during the time of menstruation which subsequently enhance hygienic practices regarding menstruation.

In the same line, El-Kurdy, Fadel and Elsayed (2020) showed that the knowledge and practice of visually impaired youngsters on menstruation correlated statistically significantly. Additionally, this result is in congruent with Nandhini and Dabhi, (2021) at their study illustrated that visually impaired adolescent females' knowledge and practices related menstruation hygiene showed a strong favorable link.

## **CONCLUSION**

*The outcomes of the research support the following conclusion:*

Most of the study's visually impaired adolescent girls had low levels of knowledge about menstruation and unhealthy menstrual practices.

## **RECOMMENDATIONS**

*The following recommendations were given in light of the study's results:*

- 1- Audio-based classes must be applied to raise awareness and improve health practices of visually impaired adolescent girls regarding menstruation.
- 2- Adding course content regarding menstruation, its hygienic practices, and management of menstrual discomfort into the of the visually impaired schools' curriculum.
- 3- Another study is recommended to raise awareness of the unique menstrual needs of teenage females who are blind.
- 4- School libraries should be provided with booklets, adequate books with braille method which include materials related to menstruation and menstrual hygiene.
- 5- For the benefit of improving visually disabled girls' knowledge, attitudes, and practices around menstrual aspects, Al-Nor and Al-Aml schools should be

involved in developing and executing pertinent educational classes and programs about menstrual health among preparatory and secondary students. This can be achieved with the help of school health nurse, sociologist, and school- teachers.

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## تقييم المعرفة والممارسات الصحية المتعلقة بالدورة الشهرية للمراهقات معتلي البصر

منار فتحي هييبه<sup>١</sup>، فتحية محمود عبد المنعم<sup>٢</sup>، هند صلاح الدين محمد<sup>٣</sup>، جيهان أحمد البهلوان<sup>٤</sup>

<sup>١</sup> أستاذ مساعد تـمريض الأمومة والنساء والتوليد-كلية التمريض- جامعة بورسعيد، <sup>٢</sup> مدرس مساعد تـمريض الأمومة والنساء والتوليد-كلية التمريض- جامعة بورسعيد، <sup>٣</sup> أستاذ تـمريض النساء والتوليد-كلية التمريض- جامعة الزقازيق، <sup>٤</sup> أستاذ مساعد تـمريض الأمومة والنساء والتوليد-كلية التمريض- جامعة بورسعيد

### الخلاصة

المراهقات ذوات الإعاقة البصرية (فاقدي البصر بشكل كامل أو بشكل جزئي) هي مجموعة من الفتيات ذوات الإعاقة اللائي يحتجن إلى عناية خاصة خلال بداية فترة البلوغ لديهن وخاصة أثناء الدورة الشهرية حيث لا يتم التعامل معهن بشكل صحيح **هدف الدراسة:** هو تقييم المعرفة والممارسات الصحية المتعلقة بالدورة الشهرية للمراهقات معتلي البصر. **التصميم:** تم استخدام بحث وصفي في هذه الدراسة. **مكان الدراسة:** تم تنفيذ الدراسة في مدرستي النور والأمل للفتيات المراهقات معتلي البصر في محافظتي بورسعيد ودمياط. **عينة البحث:** تضمنت الدراسة عينة من ٥٠ فتاة مراهقة معاقة بصريًا (٢٧) فتاة معاقة بصريًا بمدينة بورسعيد و (٢٣) فتاة معاقة بصريًا بمدينة دمياط. **أدوات جمع البيانات:** تم استخدام ثلاث أدوات لجمع البيانات، الأولى: استمارة تقييم منظم لمعرفة الخصائص الاجتماعية وخصائص الدورة الشهرية بالإضافة الي معلومات الفتيات عن الدورة الشهرية **والأداة الثانية:** تقييم الممارسات الصحية أثناء الدورة الشهرية **والأداة الثالثة:** تقييم القيود والسلوكيات المتبعة أثناء الدورة الشهرية لدي الفتيات معتلي البصر. **النتائج:** أشارت نتائج الدراسة إلى أن أكثر من ثلاثة أرباع المراهقات معتلي البصر المدرسات لديهن مستوى ضعيف من المعرفة الكلية فيما يتعلق بالدورة الشهرية وكان لدى معظمهن مستوى ضعيف من الممارسات الصحية أثناء الدورة الشهرية. **الخلاصة:** كان هناك نقص في معرفة وممارسات المراهقات معتلي البصر فيما يتعلق بالدورة الشهرية. **التوصيات:** تقديم جلسات تعليمية سمعية منظمة لزيادة لتوعية المراهقات معتلي البصر فيما يتعلق بالدورة الشهرية.

**الكلمات المرشدة:** الدورة الشهرية - المراهقات معتلي البصر - المعرفة والممارسات الصحية