



Premenopausal Women`s Knowledge Regarding Dysfunctional Uterine Bleeding

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Abstract

Background: Dysfunctional uterine bleeding (DUB) is irregular menstrual bleeding that is not caused by a serious condition such as disease or pregnancy complications it is usually caused by changing hormone levels which may affect ovulation. DUB is the most common problem faced by gynecologist today with many treatment options with existing and new ones being developed. **Aim of the study:** was to assess premenopausal women`s knowledge regarding dysfunctional uterine bleeding. **Subjects and Methods:** **Research design:** This study used a descriptive design. **Setting:** The research was carried out at Zagazig University Hospital, Sharkia Governorate of Egypt. **Subjects:** 95 premenopausal women were included in a purposive sample. **Tools of data collection:** two tools were used; a structured Interviewing questionnaire and assessment of premenopausal women`s knowledge about dysfunctional uterine bleeding. **Results:** the study found that there is a highly statistically significant relation between women`s total knowledge and their demographic characteristics as education level and residence, while a statistically significant relation was found with family income, and no statistically significant relation was found with age, marital status, and occupation. **Conclusion:** the study showed that nearly one third of the studied women had a satisfactory level of total knowledge regarding dysfunctional uterine bleeding. **Recommendations:** providing an educational program for women to improve their knowledge regarding dysfunctional uterine bleeding

Keywords: *Premenopausal Women, Knowledge, Dysfunctional Uterine Bleeding*



Introduction

Dysfunctional uterine bleeding (DUB) which is an unusual uterine bleeding without any clinically apparent intrinsic pelvic illness is a serious problem affects women's quality of life aspect. It considered one of the major premenopausal women complaints in gynecological outpatient department. Symptoms of DUB includes; menorrhagia, metrorrhagia, bleeding contains clots, spotting, pelvic pain and pelvic pressure symptoms (*Youssif et al., 2022*).

There are two types of dysfunctional uterine bleeding (Ovulatory “10%” and an ovulatory DUB “90%”), Ovulatory dysfunctional uterine bleeding (ODUB) can happen as a result of luteal atrophy or dysplasia, which causes irregular endometrial shedding and lengthens the menstrual cycle. Continuous bleeding before or after the menstrual period and significant menstrual volumes might occur in ODUB patients. (*Li et al., 2020*).

An ovulatory dysfunctional uterine bleeding is a bleeding related to dysfunction of neuroendocrine axis and unrelated to abnormalities of the uterus or endometrium structure, and diagnosed after exclusion of any structural causes. (*Ji et al., 2020*).

Incidence of DUB accounts for 70% of all gynecologic visits by pre-and postmenopausal females. This make it a serious health condition because excessive bleeding episodes lead to severe anemia, infertility and Increased risk for endometrial cancer, leading to symptoms that may prevent them from continuing with daily activities and being away from work and quality of life (*American College of Obstetricians and Gynecologists.,2020*)

Frequent and excessive uterine bleeding leads to serious complications as iron deficiency anemia, Hormonal imbalance such as chronic unopposed estrogenic action seen in DUB can lead to excessive stimulation of the endometrial lining increasing the risk of both endometrial hyperplasia and endometrial carcinoma. Women of reproductive age group commonly suffer from infertility due to chronic anovulation which is associated with DUB (*Pavithra, 2018*).

Nursing role consider very important especially in early detection of cases, prompt guidance and referral ,also in

motivating the women regarding self-awareness and self-care aspects which become the main issue of education such as life style modification ,complementary, alternative therapies such as herbal preparations, exercise programmers, relaxation techniques and safety ,get plenty of rest, recording periods, note the start and end of the period, as well as how much flow (by keeping track of how many pads and tampons use) (*Said et al., 2022*).

Nursing interventions for patients mainly from the aspects of psychology,diet, infection prevention, and discharge guidance. Effective psychological care can relieve patients’ anxiety, and other negative emotions, and thereby reducing complications (*Yan and Haiyan, 2021*).

Significance of the study: Dysfunctional uterine bleeding (DUB) is a prevalent issue among women of reproductive age, with as many as 20.0% of those affected seeking medical advice. DUB leads to considerable morbidity and disrupts personal, familial, and social aspects of life (*Fatima, 2016*). Maternity nurse play a crucial role in assessing and enhancing the knowledge for premenopausal women concerning dysfunctional uterine bleeding. Therefore we conducted this study to assess premenopausal women`s knowledge regarding dysfunctional uterine bleeding.

Subjects and Methods

Research Design: This study used a descriptive design.

Setting: The current study was carried out at Zagazig University Hospital, Sharkia Governorate of Egypt.

Study Subjects:

Sample type: There were ninety five premenopausal women.

Inclusion criteria:

- All women diagnosed with DUB and accepted to participate in the study.
- Their age ranged between 35-50 years
- Had telephone number for contact..

Tools of data collection: To accomplish the aim of the current study, the researchers employed the following tools.

Tool (1): A Structured interviewing questionnaire:

This tool includes demographic data, obstetrical history, gynecological history, contraceptive history and family



history.

Tool (2): Assessment of premenopausal women's knowledge about dysfunctional uterine bleeding: This tool was designed by the researcher to assess the woman's knowledge about dysfunctional uterine bleeding. It contains eight questions about DUB that includes; definition, symptoms, high risk group of DUB, types, causes....etc. It was created by the researcher after reviewing a lot of old and recent medical and nursing references as *Kamel, (2021) and Youssif et al., (2022)*.

Scoring system:

The questionnaire consisted of **8** questions; each question evaluated as “the correct answer was scored one degree and the incorrect answer was scored as a zero”. The total scores of the questionnaire were **8** grades. These scores summed and converted into a percent score. It classified into 2 categories:

- Satisfactory if score $\geq 60.0\%$ (5-8 grades).
- Unsatisfactory if score from $<60.0\%$ (0-4 grades).

Content Validity and Reliability: The tools were tested for content validity by three experts in the field of Obstetrics and Gynecological Nursing. Cronbach's Alpha test was used to test the study tools' reliability. The recommended modifications were done and the final form was ready for use. The reliability for tool (2) through Alpha Cronbach test was 0.757.

Pilot study: A pilot study was carried out on 10.0% (10 women) who were excluded from the sample. The main purpose of the pilot study was to assess the clarity, feasibility, applicability of the data collection tools, arrangements of items and estimate the time needed for each form.

Field work: The field work of the current study went through the following:

Subsequent to the pilot study, the data collection process spanned a duration of 6 months, commencing on January 1, 2025, and concluding at the end of June 2025. Following the acquisition of official permission, the pilot study was conducted and subsequently analyzed. The researcher was present at the study locations three days a week (Saturday, Sunday, and Wednesday) from 9:00 a.m. to 2:00 p.m. for the purpose of data collection. Upon identifying the women who met the study's criteria, the researcher initiated the process by introducing herself, clarifying the study's objectives and procedures, and securing their verbal consent.

1) Interviewing Phase:

A verbal agreement for participation was obtained from each woman following a comprehensive explanation of the study's objectives. The researcher was present at the previously mentioned location three days a week, from 9:00 AM to 2:00 PM. The sampling selection process was conducted. Women who met the eligibility criteria were invited to take part in the study, and interviews were conducted with them using tool 1.

2) Assessment Phase:

In this phase, the researcher used tool (2) to assess woman's knowledge regarding dysfunctional uterine bleeding.

Administrative and Ethical consideration:

Official authorization was secured through the submission of a formal letter from the Faculty of Nursing to the relevant authorities overseeing the study setting, in order to obtain permission for data collection. All ethical considerations were addressed throughout every phase of the study. The research ensured the anonymity and confidentiality of the participants. Participation in the study was entirely voluntary. A verbal agreement was obtained from each premenopausal woman following a comprehensive explanation of the study's objectives. Women were made aware of their rights to decline participation and were informed that they could withdraw at any point during the data collection interviews.

Statistical analysis: The collected data organized, tabulated and statistically analyzed using Statistical Package for Social Science (SPSS) version 25 for windows, running on IBM compatible computer Data were first tested for normality using the Shapiro–Wilk test, which revealed that the variables were not normally distributed. Therefore, non-parametric tests were applied. Descriptive statistics such as frequency, percentage, median, and interquartile range were used to summarize the data.

Result

Table (1) shows that, 43.1% of the studied women were aged between 35–<40 years, the Mean $\pm$ SD of age was 41.24 ± 5.2 years. As regard to marital status, 78.9% of them were married. Also, 47.4% of them had secondary education. Moreover, 60.0% of them live in rural areas. Furthermore, 49.5% of them had enough family income. In addition, 67.4% of them were working.



Table (2) displays that, the mean $\pm$ SD of parity was 2.73 ± 1.43 , and 48.4% of the studied women had 3–4 children. As regard to gravida, the mean $\pm$ SD was 3.29 ± 1.82 , and 45.2% of them had been pregnant 3–4 times. Moreover, 40.0% of them had a history of previous abortion, and 89.5% of those had 1–2 abortions, with a Mean $\pm$ SD of 1.63 ± 0.75 . Furthermore, 47.4% of them had a history of genital tract infection, and 60.0% had a history of dysfunctional uterine bleeding. Also, 84.2% of them used contraceptive methods, 87.4% of them used intrauterine device, and the Mean $\pm$ SD of duration of use was 6.31 ± 3.35 years. In addition, 68.4% of them had no family history of dysfunctional uterine bleeding.

Figure (1) shows that, 68.4% of the studied women had no family history of dysfunctional uterine bleeding.

Table (3) displays that there was (56.8% and 61.1%, respectively) of the studied women had correct answers about the definition and symptoms of dysfunctional uterine bleeding

Table (4) displays that, there is a highly statistically significant relation between women's total knowledge and their socio-demographic characteristics as education level and residence ($P < 0.01$), while a statistically significant relation was found with family income ($P < 0.05$), and no statistically significant relation was found with age, marital status, and occupation ($P > 0.05$).

Discussion

Dysfunctional uterine bleeding (DUB) is a common disorder of excessive uterine bleeding affecting premenopausal women that is not due to pregnancy or any recognizable uterine or systemic diseases (**kamel, 2021**). This study was conducted to assess knowledge regarding dysfunctional uterine bleeding among premenopausal women.

Regarding demographic data of the studied premenopausal women; the current study found that more than two fifths of the studied premenopausal women were aged between thirty-five to less than forty years old. Approximately four-fifths were married, less than half had secondary education. Moreover, three-fifths lived in rural areas, approximately half of the studied premenopausal women had enough family income, and approximately two thirds were working.

This finding is consistent with **Gerema et al., (2022)** who reported that women in late reproductive age (forty one-forty nine years) had significantly higher odds of experiencing DUB compared to those in mid-reproductive age. Similarly **Lebduska et al., (2023)** emphasized that DUB is a common problem in premenopausal women and its etiologies differ based on

hormonal and structural influences that increase with age.

This result may be attributed to the fact that dysfunctional uterine bleeding is more prevalent among women in their late reproductive years, particularly those aged thirty five to fifty years, as hormonal fluctuations become more pronounced during the premenopausal period. The predominance of married women in the sample reflects the typical demographic profile of this age group, while the moderate educational level may influence health-seeking behavior and awareness of reproductive health issues.

Regarding menstrual, obstetrical and gynecological history of the studied premenopausal women; the current study found that approximately three quarters of the studied premenopausal women had a regular menstrual cycle, and approximately four-fifths reported that the duration of menstruation was between five to less than ten days. Moreover, less than half had three to four children, and two fifths had a history of previous abortion.

Furthermore, approximately five sixths used contraceptive methods; with approximately seven eight of them using intrauterine devices, and more than two thirds had no family history of DUB. This finding is consistent with **Cheong et al., (2020)** who reported that dysfunctional uterine bleeding is among the major gynecological problems, and current surveys revealed that thirty percent of all premenopausal females in Egypt described their menses to be excessive and abnormal. Furthermore **Said et al., (2022)** found similar results regarding the obstetrical and gynecological profile of women with dysfunctional uterine bleeding; reporting that multiparty and IUD use were common among affected women.

Regarding premenopausal women's knowledge about dysfunctional uterine bleeding; the current study found that there was a marked improvement in all knowledge items related to dysfunctional uterine bleeding among the studied women when comparing between pre and post intervention, with a highly statistically significant difference. No statistically significant difference was found between post intervention and follow up. As evidence, approximately one-third of the studied women had a satisfactory level of total knowledge before intervention, which increased to nearly four fifths post intervention and remained high (over three-quarters) at follow up.

This finding is consistent with **Youssif et al., (2022)**, who found that the implementation of a self-instructional



module significantly improved women's knowledge regarding dysfunctional uterine bleeding during premenopause, with satisfactory knowledge levels increasing substantially post-intervention and remaining high at follow up. Also, *Kanagasabai et al., (2023)* in their systematic review highlighted that educational interventions play a crucial role in improving access to care and knowledge among women with dysfunctional uterine bleeding , emphasizing the importance of structured programs.

This result may be attributed to the effectiveness of the educational intervention in enhancing women's understanding of DUB. The use of diverse educational methods such as video illustrations and booklets may

have facilitated information retention. The sustained improvement at follow up, with no significant decline from post-intervention levels, suggests that the knowledge gained was well-retained, possibly due to the practical relevance of the information to the women's daily lives.

Conclusion: the study showed that nearly one third of the studied women had a satisfactory level of total knowledge regarding dysfunctional uterine bleeding.

Recommendations: providing an educational program for women to improve their knowledge regarding dysfunctional uterine bleeding.

Table (1): Demographic characteristics of the studied women (n=95).

Demographic data	No.	%
Age (years)		
35–<40	41	43.1
40–<45	28	29.5
45–50	26	27.4
Mean ± SD	41.24 ± 5.2	
Marital status		
Married	75	78.9
Divorced	8	8.4
Single	7	7.4
Widow	5	5.3
Educational level		
Illiterate	7	7.4
Read and write	2	2.1
Primary education	1	1.1
Preparatory education	9	9.5
Secondary education	45	47.4
High education	31	32.5
Residence		
Rural	57	60.0
Urban	38	40.0
Family income		
Not enough	10	10.5
Enough	47	49.5
Enough and saved	38	40.0
Occupation		
Working	64	67.4
Not working	31	32.6

SD= Standard deviation



Table (2): Obstetrical and gynecological history of the studied women (n=95).

Obstetrical and gynecological history	No.	%
Parity		
0–2	40	42.1
3–4	46	48.4
More than 4	9	9.5
Mean ± SD	2.73 ± 1.43	
Gravida		
None	9	9.5
0–2	22	23.2
3–4	43	45.2
More than 4	21	22.1
Mean ± SD	3.29 ± 1.82	
Previous abortion		
Yes	38	40.0
No	57	60.0
If yes, what is the number of abortions (n=38)		
1–2	34	89.5
3–4	4	10.5
Mean ± SD	1.63 ± 0.75	
History of genital tract infection		
Yes	45	47.4
No	50	52.6
History of dysfunctional uterine bleeding		
Yes	57	60.0
No	38	40.0
Method of contraception		
Yes	80	84.2
No	15	15.8
If yes, what is the method (n=80)		
Intrauterine device	70	87.4
Oral contraceptive	7	8.8
Injection	3	3.8
If yes, how long have you used this method (n=80)?		
<3 years	11	13.8
3–<7 years	26	32.5
7–<10	30	37.5
10 or more	13	16.2
Mean ± SD	6.31 ± 3.35	
Family history of dysfunctional uterine bleeding		
Yes	30	31.6
No	65	68.4

SD= Standard deviation

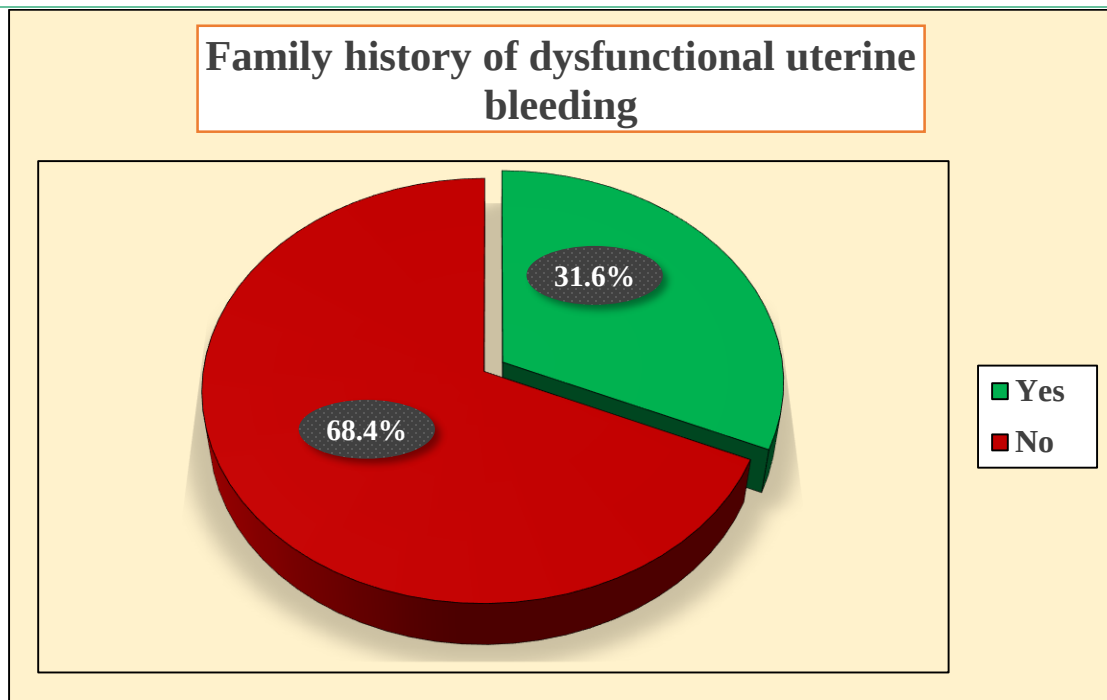


Figure (1): Percentage distribution of the studied women according to family history of dysfunctional uterine bleeding (n=95).

Table (3): Distribution of the studied women according to their knowledge about dysfunctional uterine bleeding (n=95).

Knowledge items	Correct answer		Incorrect answer	
	No.	%	No.	%
Definition	54	56.8	41	43.2
Symptoms	58	61.1	37	38.9
High risk group	18	18.9	77	81.1
Types	15	15.8	80	84.2
Causes	45	47.4	50	52.6
Method to measure amount of blood loss	56	58.9	39	41.1
Complications	51	53.7	44	46.3
Treatment	44	46.3	51	53.7

X²: Chi-square test. P= p-value.

*Statistically significant at p<0.05.

No significant at p >0.05.

**Highly significant at p < 0.01.



Table (4): Relation between demographic data of the studied women and their total knowledge (n=95).

Demographic data		Level of knowledge				X ² P-Value
		Satisfactory (n=30)		Unsatisfactory (n=65)		
		No.	%	No.	%	
Age (years)	35–<40	17	56.7	24	36.9	X ² =3.28 P=0.194
	40–<45	7	23.3	21	32.3	
	45–50	6	20.0	20	30.8	
Marital status	Married	25	83.3	50	76.9	X ² =2.98 P=0.394
	Divorced	2	6.7	6	9.2	
	Single	3	10.0	4	6.2	
	Widow	0	0.0	5	7.7	
Education level	Illiterate	0	0.0	7	10.8	X ² = 30.32 P=0.000**
	Read and write	0	0.0	2	3.1	
	Primary	0	0.0	1	1.5	
	Preparatory	0	0.0	9	13.8	
	Secondary	9	30.0	36	55.4	
	High	21	70.0	10	15.4	
Residence	Rural	10	33.3	47	72.3	X ² = 12.99 P=0.000**
	Urban	20	66.7	18	27.7	
Family income	Not enough	1	3.3	9	13.8	X ² =7.99 P=0.018*
	Enough	11	36.7	36	55.4	
	Enough and saved	18	60.0	20	30.8	
Occupation	Working	23	76.7	41	63.1	X ² =1.72 P=0.189
	Not working	7	23.3	24	36.9	

X²: Chi-square test.

P= p-value.

No significant at p >0.05.

* Significant at p < 0.05.

**Highly significant at p < 0.01.

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Intervention on Women with Dysfunctional Uterine

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