Effect of self-instructional module on women's self-care practices regarding dysfunctional uterine bleeding during premenopause

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Abstract

Here we aims to evaluate the impact of a self-educational module on how women care for themselves when experiencing abnormal uterine bleeding during premenopause. ***Quasi-experimental study*** design was used. **A purposive sample** was used to recruit ninety five women suffering from dysfunctional uterine bleeding**. Five tools** were used for data collection; **first tool** was Structured Arabic Interviewing Questionnaire Sheet, **second** was Pictorial chart to calculate the abundance of lost blood; **third tool** was women self-care practices check list. **Fourth tool** was Likert scale; **fifth tool** was follow up card. **The results** this study demonstrated highly significant progression of self-care practices regarding dysfunctional uterine bleeding before, after and during follow up of implementing the self-instructional module. Also this study showed highly statistical variation between the studied overall knowledge, total attitude and total practice of self-care score regarding dysfunctional uterine bleeding before and post implementing self –instructional module. Moreover there was significant association between total severity of dysfunctional uterine bleeding and total practices of studied women regarding dysfunctional uterine bleeding before, after and during follow up of implementing the self-instructional module. **Conclusion and recommendations:** This study concluded that the result of this study support the research hypothesis that was the self-instructional module will enhance self-care practices of women regarding dysfunctional uterine bleeding during premenopause. **Accordingly, the following recommendation is proposed:** develop and implement educational intervention in the gynecology outpatient unit for premenopausal women to improve their knowledge and self care practices regarding Dysfunctional uterine bleeding.

Keywords: Dysfunctional uterine bleeding, Self-Instructional Module, Premenopausal Period

Introduction

Premenopause is the transition period when the levels of reproductive hormones are becoming more variable and lower but the women still have periods whether they're regular or irregular and are considered to be in the reproductive years. premenopausal period ends when a woman has gone 12 months without having her period. At this stage many women have great hormonal changes that affect all body resulting in premenopausal symptoms that include (hot flashes, fatigue, breast tenderness, mood swings & heavy menstrual bleeding ***(Sifa Marie, 2021).***

Unusual uterine bleeding without any clinically apparent intrinsic pelvic illness is known as dysfunctional uterine bleeding (DUB). It is considered one of the major complaints in gynecological outpatient department. It commonly presents in premenopausal women. Where, symptoms of Dysfunctional uterine bleeding are Menorrhagia (excessive blood flow or longer duration, regular & cyclical period), Metrorrhagia (irregular or a cyclical period). Bleeding contains clots, spotting, pelvic pain and pelvic pressure these symptoms which are a serious problem affect women's medical, physical, social, psychological, economical and sexual life aspects ***(Schorge et al., 2020).***

The abnormal cyclic pattern of ovulatory hormonal stimulation to the endometrial lining is disrupted in functional uterine hemorrhage. In many respects, the bleeding is unpredictable. Premenopausal women who experience frequent bleeding episodes might experience potential consequences. That will elevate the risk for iron deficiency anemia. Bleeding might be so severe that hospitalization is necessary for blood transfusions and hydration management. Most of these issues can be avoided with timely and effective treatment. Women must use self-care strategies that alleviate these problems and prevent

complication. This will be accomplished through nursing intervention. ***(Emily Davis; Paul B, Sparzak.2022).***

Due to the complexity of diagnosing and treating dysfunctional uterine hemorrhage, recommendations for investigation and management have recently been developed. While the quantity and duration of bleeding can be somewhat described and evaluated, women can experience extremely disparate outcomes depending on their unique perceptions, symptoms, and lifestyles. Factors like normalization, perception of health, and interpersonal relationships can influence how serious DUB is perceived to be. DUB can be difficult to detect since its causes are frequently underlying and non-specific (**Claire Henry, etal.2020 b)**

Self-Instructional Module any type of instruction that moves forward dependent on respondent reaction qualifies. Curriculum, corporate training, technical tutorials, or any other subject that doesn't require a teacher to respond right away can all be considered content that aims to improve self care practices. Self-care practice is a comprehensive, multidimensional process of deliberate application of tactics to support healthy functioning and improve wellbeing. Thus, these practices help the women to looking after their own health using the knowledge and information available to them to boost health and management of diseases. Self-care practices are affected by the belief and attitude of an individual in self-efficacy or confidence in carrying out tasks and defeating barriers. Cultural values and beliefs may also affect self-care practice. ***(Dick and Carey. 2020)***

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) ***(Maybin and Critchley, 2019).***

Also nurse play a crucial role in overcoming the three delays that prevent women from receiving appropriate health care services this delays as; lack of awareness and understanding of the disease amongst females, and lack of access to the best treatment for their condition **(Norton, 2020)**. ***Thus,*** nurses have a critical role in increasing the women knowledge and awareness about the problem, teach them how to deal with symptoms, counseling about the changes of premenopausal period in preparation for safe entering in menopause all that will help in avoiding the serious complications as anemia which may lead to woman death and endometrial carcinoma ***(Khafaga and Goldstein, 2019).***

Therefore, maternity nurses are the first line against Dysfunctional uterine bleeding this life threatening condition, they plays an essential role in assessment, detecting, treatment of dysfunctional uterine bleeding. Also they help premenopausal women to explain their problem, provide support and much information to the premenopausal woman about dysfunctional uterine bleeding ***(Anupma and Raj, 2019).***

Significant of the study:

Dysfunctional uterine bleeding is amongst the major gynecologic problems in gynecology. Current surveys revealed that 30% of all premenopausal females in Egypt described their menses to be excessive & abnormal. Recently, the World Health Organization reported that 18 million females aged 35-55 years perceive their menstrual hemorrhage to be sever. So studying dysfunctional uterine bleeding during premenopausal period is mandatory **(Cheong, Cameron and Critchley . 2020).**

Also, 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).***

Despite the fact that DUB can have serious medical repercussions and significantly affect daily life, the majority of women tend not to seek medical attention for these symptoms. Heavy menstrual bleeding (HMB) affected 27.2% of 4506 pre-menopausal women in European internet survey, and 46% of these women had never sought medical advice. Additionally, 39.9% of people reported having anemia-related symptoms. Only 20% of the 19,254 women in a Japanese study who reported menstrual problems, such as discomfort and heavy flow, sought professional advice (**Claire Henry, Alec Ekeroma, and Sara Filoche**. **2020 a)**

Two thirds of hysterectomies are performed due to abnormal uterine bleeding (AUB). AUB accounts for up to one-third of all outpatient gynecologic visits; in a premenopausal woman, this percentage jumps to 69% **(Amr Abd-Allah Roshdy Hassan ; Esmail Mohamed El-Garhy and Ashraf Hamdy Mohamed;2021)**.In Egypt, prevalence rates are unknown, because many women don't ask for medical treatment as they think that's normal or shame of asking about this private issue. DUB is a disabling condition noticeably affects different aspects of women's daily lives, social relation and sexual function. Therefore, there was a significant need to assess the effectiveness of self-instructional module on enhancing females's practices of self-care regarding DUB during premenopausal period .(***Schorge et al., 2020)***.

Aim of the Study

To assess the impact of self-instructional module on self-care practicing of females regarding dysfunctional uterine bleeding during premenopause. Through fulfilling the following objectives:

1-Assess females' knowledge regarding dysfunctional uterine bleeding.

2- Assess women's attitude regarding dysfunctional uterine bleeding.

3- Assess women self care practices regarding dysfunctional uterine bleeding.

4- Design and implement self-nstructional module for dysfunctional uterine bleeding women

5- Evaluate impact of self-instructional module on enhancing practicing of self-care of women regarding dysfunctional uterine bleeding during premenopausal period.

Research Hypothesis:

Implementing of self-instructional module will enhance the practice of self-care during premenopause.

Subjects and Methods:

Research design: Quasi experimental design was used using Pre / Post test.

Setting: Gynecological unit in outpatient department at maternity university hospital.

Sample: A purposive sample technique was used. It Included the women who attended to gynecological outpatient unit and diagnosed with dysfunctional uterine bleeding and including (95) females were recruited; their number were estimated by using steven equation (**Steven and Thompson, 2012).**

$$n = \frac{N \times p(1-p)}{[N-1 \times (d^2 \div z^2) + p(1-p)]}$$

While;
p=0,5
N=total population
Z= z value (1.96)
D= standard Error
n= sample size

Under the following inclusion criteria;

- **All women diagnosed with** dysfunctional uterine bleeding.
- Their age ranged between 35-50 years
- Read &write women
- Had telephone number for contact.
- Free from any medical problems as (HTN, DM, and cardiac disease ….etc).

Tools for data collection

Four tools:

1-**Structured Arabic Interviewing Questionnaire Sheet:** it was designed by the research after reviewing the relevant literature and written in a simple Arabic language. It is divided into three sections:

Part 1: To assesses demographics of the sample (woman's name, residence, age, socio-economic status, marital status, education level and occupation and income).

Part II includes:

- **Menstrual history (present and past):** such as; age of menarche, rhythm, duration, frequency.
- **Obstetrical history**: such as; parity, gravida, previous abortion.
- **Gynecological history**: this included data about gynecological diseases as, polycystic ovarian syndrome, prolapse, incontinence, infertility, uterine tumors, infection, dysfunctional uterine bleeding.
- **Family planning history as**: (If family planning method used, and the duration, etc....).

Part III: Knowledge Questionnaire tool: designed by the researcher to assess the premenopausal woman's knowledge regarding dysfunctional uterine bleeding. As definition of dysfunctional uterine bleeding, causes, risk factors ,complication and management of dysfunctional uterine bleeding (medical and non medical)

Scoring System of Level of Knowledge: there are seven statements with total score (21) score with three responses: correct answer takes (3), incomplete correct answer takes (2), and incorrect answer takes (1). Women with poor knowledge will have less than 50 % (1-10), women who have average knowledge take 50-75 % (11-15), the last group with good knowledge take more than 75 % (16-21).

Tool II: Pictorial chart

1. It was used to assess the dysfunctional uterine bleeding amount. It adopted from**.** ***(Jacobson, et al. (2018)***

Scoring system:

Towels; a slightly spoiled towel was scored 1 point, 5 points for a moderately stained towel,20 point if the towel is fully saturated with blood.

Clots; 1 point and 5 points for for small clots (½ inch) and large clots (1 inch).

Flooding; 5 points for any flooding episode.

A pictorial chart score of more than 100 points, used as a diagnostic test for dysfunctional uterine bleeding. Score up to 75 points is normal menstrual cycle then more than 75 up to 100 points mean heavy menstrual bleeding. The total points of towels, clots and flooding times are summed for bleeding days to count the amount of bleeding which help in diagnosis of dysfunctional uterine bleeding.

Tool III: Preimenpausal women self-care practices check list

It assesses woman self-care practices regarding dysfunctional uterine bleeding. Adapted from **(Panagiotis Anagnostisa, etal (2020)** and modified by the researcher to fulfill the aim of the study . This check list contain (10) statements which total score is (30). Item responses are assigned values of Never=1, Sometimes=2, Always=3.woman with poor practice take up to14 points, moderate practice (15-22points) and good practice (23-30points).

Tool IV: Likert scale for attitude

1. This scale used to measure Attitudes of premenopausal woman regarding dysfunctional uterine bleeding. Adopted from (**Vedashree Joshi, Garima Arora, Kaushik Ragubathy 2021)**. The Scoring system of attitude scale contain (14) statements which total score is (42). Item responses has three scales (Disagree=3, Uncertain=2 & Agree=1). The woman who has negative attitude (less than 60%) who takes (1-24 points) and women who has positive attitude (equal or more than 60%) who takes (25-42points).

V. Fifth tool was follow up sheet

Used to follow up the studied women after implementing self –instructional module immediately, after one month and after two months. This done through telephone number and follow up visit in the outpatient unit

- ✓ **Supportive Material in Form of Arabic Self Instructional Modules for Women's about Self Care Practices of Dysfunctional Uterine Bleeding during Premenopausal Period (Appendix VI):**

Arabic Self Instructional Modules was developed by the researcher in Arabic form for self care practices regarding dysfunctional uterine bleeding during premenopausal period that includes (concept of dysfunctional uterine bleeding, causes of dysfunctional uterine bleeding, complications, managements and women's self care practices)

Ethical Considerations:

Before beginning the study, the Scientific Research Ethical Committee at the Faculty of Nursing at Ain Shams University gave its official approval. In order to gain the consent of the investigated women who met the inclusion criteria, researchers introduced themselves to them and explained the study's objectives. Researchers made sure there would be no risks to their health from the trial. Women's voluntary participation in the study was guaranteed by the researchers. Researchers approached the ladies in the study who were prepared to take part and fit the inclusion criteria, and they requested verbal agreement to ensure their acceptance. Every participant had the ability to withdraw from the study at any time, and all information was treated as private. Finally all data coded and secured by researcher and used for the purpose of the study.

Pilot Study

A pilot study was performed three weeks on (10%) of total studied women The purpose of the pilot study was to assess the study process, look at language clarity and simplicity, test the viability and applicability of designed tools, calculate how long it would take each study subject to finish the tools, and identify any barriers and problems that may occur during data collection. The pilot study were excluded from the sample and replaced by other women to maintain the same size of the studied women. The time for filling the survey took around 15-20 minutes. Also it helped estimation of the time needed for data collection. No modification was done.

Fieldwork

The researcher attends the clinic 3 days / week from 9 am to 1pm.the data collection take four months started from beginning of September 2021 to end of November 2021. Evaluation was done at baseline, implementation, and follow up.

Phase I: (*baseline assessment*) The researcher visited the previously described location, checked the gynecological unit's register book, and then included all present ladies who met the study's inclusion criteria in the analysis. The researcher first gave the women an explanation of the purpose of the study before obtaining their oral agreement. In order to earn their trust and confidence, information confidentiality was guaranteed. First and third tool of data collection were filled by the women and took about 15 minutes and the Pictorial chart and likert scale for attitude was checked by researchers within about 40-45 minutes.

Phase II: (*Implementation*):

It took six sessions, 2 for theory and 4 for practice; **the first session**, was an orientation session about overview of dysfunctional uterine bleeding, including causes, risk factors, symptoms, consequences, and management. **In the second session** the self care module was provided to the women and explain its contents, purpose and its impact on women self care practices. The practical sessions. was concerned with life style modification as diet, hygiene , self care practices measures and use the recommended medications, where a diet plan was set for each female according to base line assessment and requirement needed. On this instruction session researchers used different method as example for certain type of food and drinks that should be used, Visual aid "illustrated pictures", and discussion. The study group was subdivided into fifteen subgroups. The overall duration for all sessions is almost four hours and a half, where each session lasted about 25-45 minutes. Each subgroup's sessions (5-6 females approximately per session) were repeated. The researcher used simple language to suit the women. Following the meeting, the agenda for the following meeting was communicated to each group. The objectives for the upcoming session were put in plan Arabic at the beginning of the subsequent sessions to reflect the knowledge of the women. Each meeting concludes with a discussion of women's issues to address any misunderstandings. The researchers use

discussion, demonstration, and re-demonstration as some of the training methods used to improve women's practices.

Phase III (Follow up and evaluation phases): The researchers also communicated with women via telephone call for instruction and follow up them at follow up visit in outpatient clinic. Researchers follow up women immediately after implementing of self care module and after one month. Additionally, the woman mentioned that if she had any issues, she may call or use Whatsapp to contact the research team. The evaluation phase assessed the influence of self-instructional module on enhancing practice of self-care of females during premenopausal period to investigate study hypothesis.

Administrative design:

The Dean of the Nursing Faculty at Ain Shams University provided an official written consent letter that included the study's title and its stated objectives; directed to the Ain Shams University Maternity Hospital's outpatient clinic director to request his clearance for data collection; after receiving the director's approval, data were collected three days each week.

Statistical design:

Revision of collected data was done and the data was entered using personal computer (PC). Statistical analysis was fulfilled using the statistical package for social sciences, version 22 (SPSS). Numerical data are represented as mean (±SD). Categorical data are represnted as frequency (and proportions). Chi-square (x2) test is used for comparison between qualitative variables. Spearman's correlation measures the strength and direction of relations between two ranked variables. At 95%, confidence interval was set, whereas 5% was the margin of accepted error. The results were considered statistically significant at $P \leq 0.05$ and highly significant at $P < 0.01$**.

Results

Table (1) showed that ٧5% of the studied woman their age was ranged between 40and 50 years old with mean **٤٢. 35±1. 66**, regarding education 47.5% of them were primary education and 57. ٨% of them were married, on the other hand **52. 5%** have enough income & 67.٤% of them were from rural areas.

Figure (1): displayed that 65.7% of studied women their total knowledge were poor before intervention and become 2.8% after intervention and 3.5% during follow up

Figure (2): displayed that only 10% of studied women have positive attitude before intervention and become 9٤.2% after intervention and 90.1% during follow up

Table (2): revealed highly remarkable improvement regarding most of studied sample's self-care practices regarding dysfunctional uterine bleeding before ,after and during follow up of the self instructional module, as 7.2% of the studied women ate food rich in iron before intervention and become 97.2% and 91,.4% after intervention and during follow up respectively also 11.4% of the studied women have been Taking prescribed medication before intervention and become 95.7. % and 91, 4% after intervention and during follow up respectively

Table (3): revealed highly remarkable association between total knowledge and total practices regarding dysfunctional uterine bleeding before, after implementing the module. While there was considerable Correlation between total knowledge and total self-care practices of studied sample regarding dysfunctional uterine bleeding during follow up of implementing the module.

Table (4): Shows that a highly considerable Correlation between total attitude and total practices before, after and during follow up of implementing the self instructional module

Table (5): Illustrated a remarkable Correlation between total Severity of dysfunctional uterine bleeding and total practices before, after and during follow up of implementing the self instructional module.

Table (1): Distribution of woman regarding their characteristics (N=95)

General characteristics	N	%
Age (years)		
35:39 years	24	25. 0
40:50 years	**71**	**75. 0**
Mean±SD	**42. 35±1. 66**	
Marital status		
Married	**55**	**57. 8**
Divorced	7	7. 4
Single	12	12. 6
Widow	21	22. 1
Education		
Primary education	**45**	**47. 5**
Secondary education	43	45 .2
University education	**7**	7. 3
Address		
urban	31	**32. 6**
rural	46	67. **4**
Income		
Not Enough	45	47. 5
Enough	50	**52. 5**

Figure (1): Distribution of scores of the total knowledge of dysfunctional uterine bleeding before, after and during follow up of implementing the self instructional module

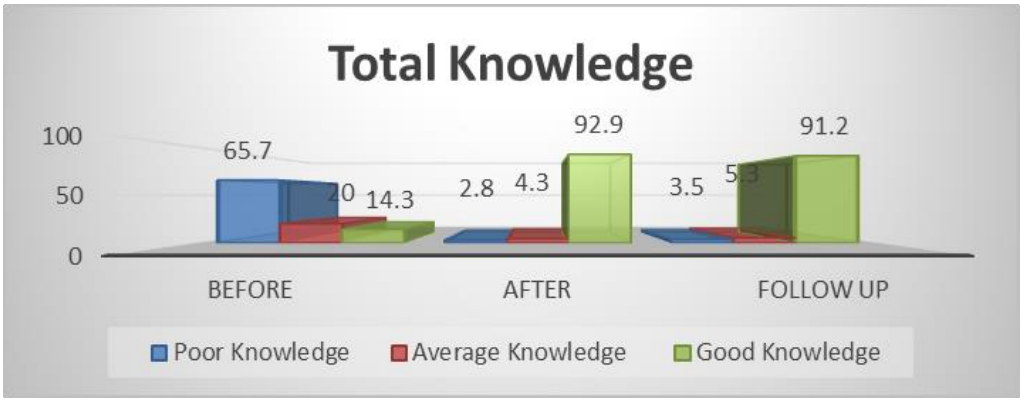

Figure (2): The total scores of attitude of dysfunctional uterine bleeding before, after and during follow up of implementing the self instructional module

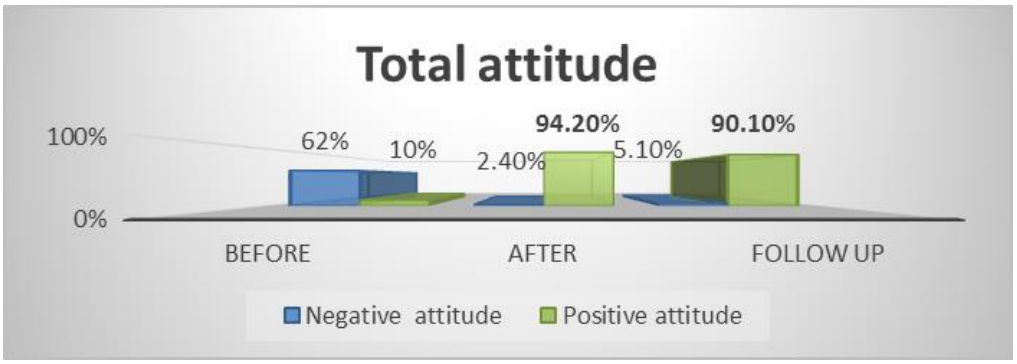

Table (2): Distribution of practices of dysfunctional uterine bleeding before, after and during follow up of implementing the self instructional module

Practice of self-care				T test	P
	Before %	After %	Follow up %	%	%
Use herbal remedy to reduce bleeding and pain	31.4	7.2	2.8	**4.2**	.000**
Follow up hemoglobin level	17.2	94.3	91.4	8.8	.000**
Increase fluid intake	78.6	98.6	94.3	8.5	.000**
Increase food rich in iron	**7.2**	**97.2**	91.4	9.7	.000**
Use paper tissue for drying	47.2	95.7	92.8	8.34	.044*
Take care of Personnel hygiene and wash perineum from front to back	**58.6**	**97.2**	90	5.25	.000**
Use cream to avoid irritation from sanitary bad	14.3	92.8	88.6	12.6	.034*
Avoid tea or coffee that decrease absorption of iron	18.6	88.6	81.4	16.1	.000**
Carry seat protector when travel	47.2	95.7	92.8	8.34	.044*
Taking prescribed medication	11,4	95,7	91,4	3,4	,001**

(*)significant at P < 0.05
(**) Highly significant at P < 0.01

Table (3): Correlation between total knowledge and total practices of dysfunctional uterine bleeding at the three periods of follow-up.

Total Knowledge	Total Self Care Practices					
	Before		After		Follow up	
	R	P	R	P	R	P
Before	**0. 457**	**<0. 001****				
After			**-0. 356**	**<0. 001****		
Follow up					**0. 287**	**0. 024***

***** HS= highly significant at p≤ 0.001* *** S= significant at p≤ 0.05***
NS= not significant at p> 0.05

Table (4): Correlation between total attitude and total practices of dysfunctional uterine bleeding before, after and during follow up.

Total Self Care Practices	Total Attitude					
	Before		After		Follow up	
	R	P	R	P	R	P
Before	**0. 341**	**<0. 001****				
After			**0. 506**	**<0. 001****		
Follow up					**0. 418**	**<0. 001****

HS= highly significant at p≤ 0.001* *** S= significant at p≤ 0.05
NS= not significant at p> 0.05

Table (5): Correlation between overall Severity of dysfunctional uterine bleeding and overall practices of dysfunctional uterine bleeding before, after and during follow up.

Total Self Care Practices	Total Severity of dysfunctional uterine bleeding					
	Before		After		Follow up	
	R	P	R	P	R	P
Before	.344	.084*				
After			.276	.063*		
Follow up					.238	.072*

HS= highly significant at p≤ 0.001 **** S= significant at p≤ 0.05***
NS= not significant at p> 0.05

Discussion

This study evaluated the influence of self-instructional module on the practice of females regarding dysfunctional uterine hemorrhage during premenopause. With the following research hypothesis**:** Implementing of self-instructional module will enhance women's practice.

Dysfunctional uterine bleeding is the diagnosis in 40–60% of women with excessive menstrual bleeding during later reproductive age. Women with DUB may experience pain, embarrassment and inconvenience that can have a significant impact on their lives. Dysfunctional uterine bleeding is a common clinical issue, representing 70% of the gynecologic visits by peri-and postmenopausal females**.** This makes it a serious health condition that require blood transfusion and intravenous fluids ***(Schorge et al., 2020)***.

Regarding general characteristics of the women in this study, three quarter of affected women are aged 40-50 years with mean age 42.35±1.66. Less than half of them had primary education and more than half of them were married, and have enough income and more than two third of them were from rural areas. The present result is similar to **Munro, et al.,** ***(2019)*** who conducted a descriptive cross sectional study titled premenopausal women distressing from dysfunctional uterine bleeding & the impact on women quality of life and reported that most of women aged between 45 to 50 (x□=46.5± 2.83) years, married (n=220, 73.3%), went to intermediate education (n=140, 46.7%), living in rural area (n=244, 81.3%). ***This agreement could be due to*** dysfunctional uterine Bleeding is more common in this age group because of hormonal changes. Also this results agree with **Urge Gerema, (2022)** who studied Abnormal uterine hemorrhage and associated factors among females at reproductive age in Jimma town, Ethiopia and included 660 women. The participants‘ mean age was 32 (±7) years, (69.4%) were married and around (25.8%) can read and write, whereas 23.3% had primary education.

The findings of this study showed that less than half of females had primary education. This study is disagreement with ***Ghada (2020)*** who conducted a cross sectional study titled “Assessment quality of life among premenopausal females complianing dysfunctional uterine bleeding” who found that nearly half women had secondary education. Also this finding is contradicted with ***Noura, M., (2020)*** who conducted a study about “the impact of abnormal uterine bleeding on female life” the study is performed at Zagazig university hospital on pre and post menopausal women. It was revealed that most of postmenopausal women were illiterate and half

of premenopausal women had just basic education. Based on the researcher this could be due to the difference in population or setting of the study. Also, most of them were from rural area where they weren't appreciating female education.

Regarding the income of the current studied women more than half of them had enough income. This study finding is contradicted with ***Anupma & Raj (2020)*** who conducted study on 100 gynecology women diagnosed with dysfunctional uterine bleeding this study titled by (A study of causes, investigation and management of structural causes of dysfunctional uterine bleeding among pre-menopausal age. who found that out of the total 100 cases, (67% were from low socio-economic class while 33% had satisfactory income).

In terms of total knowledge regarding DUB, this study found that more than two fifth of studied women had low knowledge about DUB.

This study finding was in the same line with **Mitra & Patil, (2020)** who conducted study titled by, dysfunctional uterine bleeding and associated factors among premenopausal women in Jimma town, Oromia Region, Southwest Ethiopia who found that the majority of the respondents (79.3%) have poor knowledge regarding DUB. In my opinion ***this might be due to*** the lack of information, toward self-care practices and lack of health education programs regarding dysfunctional uterine bleeding. or embarrassment of women to discuss this issue

On the other hand the present study finding is contradicted with ***Pennant, et al., (2020)*** who studied "Knowledge, Attitude and behavior of women toward dysfunctional uterine bleeding and its impact on quality of life and found that majority of women (93.8%) in the study were aware about dysfunctional uterine bleeding.

Also this disagree with ***Vedashree Joshi, GarimaArora, Kaushik Ragubathy (2021)*** who studied evaluation of knowledge ,attitude ,and behavior of women towards abnormal menstrual bleeding and its impact on quality of life of women in trbal region of the central india found that 81% has knowledge about abnormal uterine bleeding ***This variation may be attributed to*** variation of the study setting and respondents' high education level. Also, majority of the respondents in this study had good knowledge about dysfunctional uterine bleeding through getting information by use of the internet. I think this discrepancy between results may also duo to this age group not have the accessibility to the internet easily.

Concerning distribution of total attitude scores of studied women regarding dysfunctional uterine bleeding; the current study finding showed that only one tenth of studied women have positive attitude before intervention majority of them become have positive attitude regarding DUB after intervention and during follow up. This study finding is matched with **Binti et al. (2017)** who conducted a study in title Knowledge, attitude and behavior of women towards abnormal menstrual bleeding and its impact on quality of life and found that abnormal bleeding affect women negatively as it has an impact on productivity with 79.5% of women as massive hemorrhage impacted work performance. Also potentially influenced their social luife and relationships, this agree with **(Sultan Qaboos, 2022)** who studied. The association between patern of menstruation and dimensions of menstrual attitude among females of reproductive age and found that negative beliefs about heavy menses may have a considerable negative impact on girls and women.

Also this is on the same line with **Claire Henry et al. (2020b)** who conducted a qualitative study, and mentioned that mentioned that all females with abnormal bleeding of the uterus had a considerable traumatic effect on their quality of life such as relationships, education and work. Women reported having unpleasant experiences with their primary care physician. Timely access was made more difficult by sentiments of embarrassment and the taboo nature of bleeding of the uterus.

Regarding the self-care practices of studied females regarding dysfunctional uterine bleeding this study demonstrated there was highly considerable improvement regarding most of studied women's self-care practices regarding dysfunctional uterine bleeding before ,after and during follow up of the module, as only less than one tenth of the studied women ate food rich in iron before intervention and almost of them become ate food rich in iron after intervention and during follow up also slightly more than one tenth of the studied women have been Taking prescribed medication before intervention and become majority of them after intervention and during follow up Taking prescribed medication

This agreed with **Igbokwe and John-Akinola (2021)** who studied menstrual diseases' knowledge and health seeking among undergraduate students of Ibadan University, Nigeria. Those who experienced menstrual diseases and sought for help were (28.3%); however, 40.8% used nonmedical home remedies. Also, 40.8% used pain relief medications. This came in the same line with **Auqfeen Nisar (2022)** who studied Awareness about menstrual hygiene and found that Hygienic practices during menstruation were not satisfactory .While this result disagree with **(Rupali Gupta1 et al., 2021)** who studIied knowledge, attitude, and practice of menstrual hygiene in females aged 13–45 years attending Hind Institute of Medical Sciences, Sitapur. It seems to me that this variation may be related to the variation between study subject or setting.

We found that there was highly remarkable correlation between total knowledge and total practices regarding dysfunctional uterine bleeding before, after implementing the module.

This study finding was agreement with **SisiSu, Xin Yang, and Qing Su (2020)** who study Prevalence and knowledge of heavy uterine bleeding among 1152 outpatients. It was stated that 63.2% of the women knew nothing about with heavy menstrual bleeding, while 34.5% of them had limited knowledge. Also 42.0% believed that consistent profuse menstruation with no other disease requires no medical treatment, from my perspective this agreement could be due to knowledge dealt with imparting women into practices; so we find a very high relationship between overall knowledge and overall practices after implementing self instructional module.

Regarding correlation between overall attitude and overall practices, this found a highly remarkable Correlation after and implementing the module. This study finding was congruent with Kadir & Sabin (2020)who conducted a cross sectional study titled "effectiveness of self instructional module on coping strategies of women with dysfunctional uterine bleeding during premenopausal period" who found that (80%) of studied women had positive attitude about self-care practices regarding dysfunctional uterine bleeding after implementing self instructional module ($p<0.05$). in my view this agreement due to the fact that as the age increases, the women experience and awareness are also increased that reflects on their attitude. Also may be due to increased uses of mass media that help them to get information about DUB.

Concerning the relation between total severities of dysfunctional uterine bleeding of woman and overall self care practice about dysfunctional uterine bleeding the current study found that highly statistical significance between them. This study was agreement with ***Kaur, Sharma, Goraya., (2020)*** who studied "Assessment of knowledge, attitude and practices towards premenopausal women "who found a high positive correlation between women knowledge and severity of pre menopausal bleeding (p≤ ***0.07)***.

Conclusion:

The result of this study support the research hypothesis that the self-instructional module may enhance practice of females regarding uterine hemorrhage during premenopausal period. As there was highly significant differences in studied females' total knowledge, total attitude and total practice score regarding dysfunctional uterine bleeding before, post and follow up of intervention.

Recommendations:

Based on our results, it was suggested that develop and implement educational intervention in the gynecology outpatient units for premenopausal females to improve their knowledge and practices regarding Dysfunctional uterine bleeding.

Further studies are required in this field:

- Investigate women coping mechanism regarding Dysfunctional uterine hemorrhage and its influence on their quality of life.
- Examine obstacles to seeking advice about irregular uterine bleeding.

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