

Perimenopausal Women Distressing from Abnormal Uterine Bleeding: A Philippine Quality of Life Assessment-Based Correlational Study

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Abstract

Objectives: To assess the quality of life among perimenopausal women distressing from abnormal uterine bleeding with identifying factors contributing to quality of life. **Methods:** A descriptive correlational study used three tools – structured interview questionnaire, pictorial blood loss assessment chart, and Short Form (SF-36) questionnaire to a purposive sample of 300 women at perimenopause, distressing from abnormal uterine bleeding diagnosed in one of the hospitals in Pampanga, Philippines. Using SPSS v.20, the study applied frequency and percentage, mean and standard deviation, chi-square and probability of errors (p-value) with $p \leq 0.001$, and $\neg p \leq 0.05$ levels were considered statistically significant, and Pearson product moment correlation coefficient (R). **Results:** Most participants aged 45 to 50 ($\bar{x}=46.5$, $SD \pm 2.83$) years old, married ($n=220$, 73.3%), and living in urban areas ($n=244$, 81.3%). Majority experienced heavily soaked pad at their first two days ($n=256$, 85.3%) and moderately soaked pad at their tenth day ($n=174$, 58.0%) which led to physical difficulty in work performance ($n=296$, 98.7%) and limitations to other routine activities ($n=300$, 100%). A high statistically significant difference between the total quality of life and their marital status (p -value=0.00), and likewise statistically significant difference to level of education (p -value=0.12), and level of education (p -value=0.02) are greatly perceptible. **Conclusion:** The study revealed a moderate quality of life in women distressing from abnormal uterine bleeding with a negative correlation to menstrual flow. Self-care guidelines development to improve quality of life among perimenopausal women is exceptionally recommended.

Keywords: Abnormal Uterine Bleeding; Dysfunctional; Perimenopause; Quality of life

Introduction

Menopause is characterized by physical cessation of production of ovarian hormone and end of productivity with history of irregular menstrual cycle or absence of menstrual bleeding for more than three months leading to menorrhagia and abnormal uterine bleeding, and psychological changes. [1-3] Abnormal uterine bleeding or menorrhagia is resulting from hormonal disruption or imbalances without clear causes. [1,4-6] However, some studies relate the abnormal bleeding to organic and non-organic causes yet painless or asymptomatic bleeding to immaturity of hypothalamic pituitary-ovarian axis leading to hormonal disturbances with iron deficiency anemia as a more common complication. [4,5,7,8]

Quality of life is a multidimensional concept that includes different domains such as psychological, physical, spiritual, emotional and social well-being. It measures the individual ability to perception of one's position in life and expectation of one's goals in relation with value system and culture and degree of satisfaction. [9] Therefore, nursing plays an effective role in

managing and providing effective interventions, and minimizing excessive bleeding episodes without further complications in women through encouraging to proper treatment and nutrition with improving quality of life and reduce morbidity rate. [10,11]

Abnormal uterine bleeding is considered a direct significant healthcare burden in women, their families, and society as a whole with up to 15% of gynecologists' office visits in the Middle East. [12] More so, up to 95% of cases in adolescent group are considerably remarkable but 70% of all gynecologic visits by peri- and postmenopausal women. [13,14] Other studies, however, reported about 30% of all women had menorrhagia. [15] Recent studies reported 24% of women in Egypt suffer from

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abnormal uterine bleeding.^[16] Extreme menstrual bleeding has numerous side effects, involving mainly iron deficiency anemia, reduced quality of life that a health problem needs more healthcare costs due to its key suggestion for recommendation to gynecological outpatient clinics. Menorrhagia is a hindering setback for several women and a main clinical confront for gynecologists. Half of women populace with menorrhagia has no organic trigger. Abnormal uterine bleeding is consequently a diagnosis of prohibiting with a substantial financial and quality-of-life burden. It marks women's health together medically and socially.^[8] It affects women's quality of life that reflects on their occupational, physical, social, and emotional functioning.^[17] It has been suggested that early intervention or management by healthcare providers may decrease or prevent negative impact on women's quality of life.

However, there are limited studies that examine the quality of life among perimenopausal women suffering from abnormal uterine bleeding. Therefore, this descriptive correlational study is designed to assess perimenopausal women suffering from abnormal uterine bleeding and the contributing factors to it.

Aim

The study aimed to assess the quality of life of women at perimenopause distressing from abnormal uterine bleeding and its contributing factors. Precisely, it intends to (1) determine sociodemographic characteristics and menstrual history of participants; (2) identify participants' blood loss according to soaked pads scoring and presence of clots; (3) determine participants' total quality of life dimensions; (4) identify significant relationship between participants' total quality of life and their sociodemographic characteristics, menstrual history, and duration of bleeding; and, (5) examine correlation between participants' total quality of life and their blood loss specifically menstrual flow and presence of clots.

Materials and Methods

A descriptive correlational study was designed to assess perimenopausal women's quality of life since distressing from abnormal uterine bleeding and its contributing factors. An ethical approval was obtained from the Nursing Director, Rafael Lazatin Memorial Medical Center (RLMMC) – a government healthcare facility that provides several free healthcare services that extend to include all patients seeking medical or healthcare assistance, and in accordance with the code of ethics in the Declaration of Helsinki. According to hospital statistics annual range by using Slovin's formula, a purposive sample of 300 perimenopausal women were selected, aged between 40 to 50 years old, free from any medical or gynecological problem rather than already diagnosed in the outpatient and inpatient clinics of Obstetric and Gynecological Department of RLMMC with abnormal uterine bleeding for at least three months were included. However, women who had any medical condition that led to bleeding disorders, had blood disorder, and use any form of contraceptive methods that led to abnormal bleeding were excluded in the study.

Data collection instruments comprised of three tools – structured interview questionnaire, pictorial blood loss assessment chart, and SF-36 short form questionnaire. A two-part (sociodemographic characteristics and menstrual history assessment) nine-item structured interview questionnaire was developed in a literature-based approach and subsequently validated by experts in the field. Pictorial blood loss assessment charts was adopted as a guide to estimate days of bleeding and presence of clots during menstruation with scoring system is notified when menstrual blood loss is more than 80 ml per cycle or heavily soaked pads (20 points) and more than seven days bleeding duration, moderately soaked (5 points, and less than 5 ml or lightly soaked (1 point).^[18] Presence of large clot is estimated with 5 ml, moderate clot in three ml, and small clot in one ml of blood loss. Finally, a Short Form (SF-36) questionnaire for health survey was likewise adopted to assess women's quality of life and health status.^[19] The questionnaire composed of questions related in assessing general health, mental health, vitality, activity, and sexual functions on 5-point Likert scale while physical role functions and religious activity on three-point Likert scale. A total score ranged from 0-100 is divided to three levels – high (>75%), moderate (50-75%), and low (<50%). All questionnaires were translated in native language, pilot tested to 10% (30 women), obtained validity and a strong internal consistency reliability score of 0.74.

An attached informed consent explicating the nature and target of the study to participate was provided in the questionnaire before distribution. More so, it was made clear that participation is of no harm but completely voluntary and can withdraw anytime without being penalized. All responses were preserved anonymously, maintained entirely confidential for research purposes use only.

Data analysis

Using SPSS v.20, frequency and percentage were used to organize, summarize and thus condensing numerical raw data. Mean and standard deviation, chi-square and probability of errors (p -value) with $\alpha \leq 0.001$ and $\alpha \leq 0.05$ levels were considered statistically significant were applied to examine the relation between categorical variables. Pearson product moment correlation coefficient (R) was calculated to test relation between different numerical variables.

Results

Sociodemographic characteristics and menstrual history of participants

Table 1 showed that most studied women aged 45 to 50 (\bar{x} =46.5, $SD \pm 2.83$) years old, married ($n=220$, 73.3%), went to intermediate education ($n=140$, 46.7%), living in urban area ($n=244$, 81.3%), and unemployed yet home-stay as housewife ($n=152$, 50.7%). Nearly half of them had menarche between 11-15 years old (\bar{x} =12.9, $SD \pm 1.17$), in regular menstrual cycle ($n=272$, 90.7%), for five days in duration ($n=168$, 56.0%), and associated with pain ($n=300$, 100.0%) and ploating ($n=190$, 63.3%) during menses.

Participants' blood loss according to soaked pads scoring and presence of clots

In Figure 1, it revealed that majority of studied women experienced heavily soaked pad at their first two days (n=256, 85.3%), moderately soaked pad at their tenth day (n=174, 58.0%), and lightly soaked at their 12th day (n=243, 80.7%). Furthermore, Figure 2 showed that minority of them had large clots at their first nine days (n=24, 8.0%) but later majority had small clots start at their 11th day (n=294, 98.0%).

Participants' total quality of life dimensions

Table 2 illustrated the total quality of life dimensions of studied participants. Majority of studied women had physical limitations such as walking for more than a mile (n=250, 83.3%) and family caring (n=282, 94.0%), moderate activity

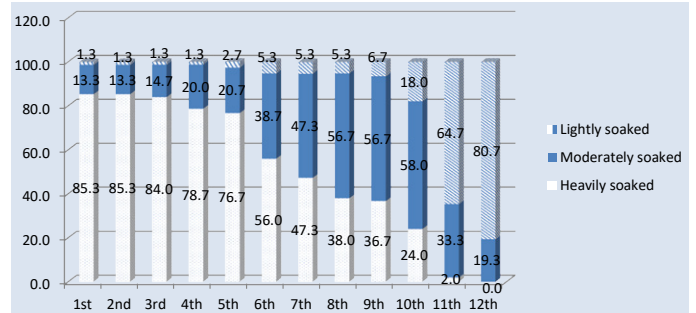


Figure 1: Participants' blood loss according to soaked pads scoring.

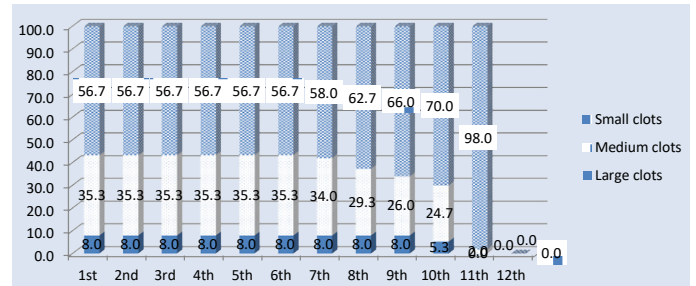


Figure 2: Participants' blood loss according to presence of clots.

Table 1: Socio-demographic characteristics and menstrual history of participants.			
Socio-demographic Characteristics		Mean	SD
Range			
Age	45-50 years old	46.5	2.83
	n		%
Marital			
	Single	28	9.3
	Married	220	73.3
	Widow	28	5.3
	Divorced	24	8.0
Education			
	Illiterate	74	24.7
	Basic	68	22.7
	Intermediate	140	46.7
	High	18	6.0
Residence			
	Urban	244	81.3
	Rural	56	18.7
Occupation			
	Employed	148	49.3
	Unemployed	152	50.7
Menstrual history		Mean	SD
Range			
Menarche age	11-15 years	12.9	1.17
	n		%
Regularity			
	Regular	272	90.7
	Irregular	28	9.3
Associated symptoms			
	Pain	300	100.0
	Nausea and vomiting	144	48.0
	Change in appetite	144	48.0
	Ploating	190	63.3
Duration			
	2 days	10	3.3
	4 days	6	2.0
	5 days	168	56.0
	6 days	62	20.7
	7 days	54	18.0
Total		N=300	100.0

Frequency (n); Percentage (%); Standard deviation (SD)

(n=280, 93.3%), and difficulty in performing work with extra effort (n=296, 98.7%) but not all activities especially related to bathing or dressing (n=262, 87.3%). Mental depression or hopelessness (n=282, 94.0%); perceived less emotionally functioning (n=286, 95.3%); powerlessness and fatigue (n=300, 100%) with disturbed sleep at some time (n=182, 60.7%) were remarkably noticeable. However, studied women reported absence of bodily pain during the past four weeks (n=255, 85%) and if pain occurs, it is perceived as not interfering ones' work (n=268, 89.3%) but physical health, in general, interferes ones' normal social activities (n=180, 60.0%). A perceived worse expected general health (n=146, 48.7%) was likewise observed. Furthermore, studied married women perceived their sexual health as having loss of sexual desire (n=138, 62.7%), lack of lubrication (n=136, 61.7%) with decrease sexual response at some time (n=108, 49.1%), and a decrease sexual response (n=108, 49.1%). More so, all studied women experienced limitations to routine activities (n=300, 100.0%).

Figure 3 demonstrated the frequency distribution of studied women's total quality of life dimensions. A low quality of life is perceived in physical (n=280, 93.4%) and emotional role (n=282, 94.0%) functions. However, their routine activities (n=264, 88.0%) were perceived the cause of a high quality of life.

Significant relationship between participants' total quality of life and their sociodemographic characteristics, menstrual history, and duration of bleeding

Table 3 displayed that the participants' total quality of life is highly statistically significant to marital status (p-value=0.000) and menstrual cycle (p-value=0.001). Furthermore, residence (p-value=0.02), level of education (p-value=0.012), and menstrual duration (p-value=0.029) were likewise statistically

Table 2: Participants' total quality of life dimensions.

Total quality of life dimensions							
Physical role limitation		Limited a lot		Limited a little		Not limited at all	
1.	Vigorous activities such as running, lifting heavy objects, participating in strenuous sports	154	(51.3%)	146	(48.7%)	0	(0%)
2.	Moderate activities, such as moving table, push a vacuum cleaner, bowling, or playing golf	20	(6.7%)	280	(93.3%)	0	(0%)
3.	Shooping	36	(12.0%)	258	(86%)	6	(2%)
4.	Climbing several flights of stairs	140	(46.7%)	152	(50.7%)	8	(2.7%)
5.	Bending, kneeling, or stooping	14	(4.7%)	126	(42%)	160	(53.3%)
6.	Walking more than mile	250	(83.3%)	44	(14.7%)	6	(2%)
7.	Bathing or dressing yourself	20	(6.7%)	18	(6%)	262	(87.3%)
8.	Doing any work outside the house	236	(78.7%)	60	(20%)	4	(1.3%)
9.	Caring of family member	18	(6%)	282	(94%)	0	(0%)
Physical functions		No				Yes	
1.	Cut down the amount of time you spent on work or other activities	14	(4.7%)			286	(95.3%)
2.	Were limited in the kind of work or other activities	10	(3.3%)			290	(96.7%)
3.	Had difficulty performing the work or other activity(it took extra effort)	4	(1.3%)			296	(98.7%)
Mental health		None of the time		Sometimes		All the time	
1.	Have you been a very nervous person	0	(0%)	220	(73.3%)	80	(26.7%)
2.	Have you feeling depressed or hopelessness	4	(1.3%)	282	(94%)	14	(4.7%)
3.	Have you felt unable to concentrate	12	(4%)	226	(75.3%)	62	(20.7%)
4.	Have you feeling unhappy person	26	(8.7%)	226	(75.3%)	48	(16%)
5.	Have you felt so down in the dumps that nothing could cheer you up	94	(31.3%)	186	(62%)	20	(6.7%)
Emotional role function		No				Yes	
1.	Accomplished less than you would like	14	(4.7%)			286	(95.3%)
2.	Didn't do work or other activities as carefully as usual	18	(6%)			282	(94%)
Vitality and fatigue		None of the time	A little of the time	Some of the time	Most of the time	All of the time	
1.	Feeling tired	0 (0%)	0 (0%)	100 (33.3%)	162 (54%)	38 (12.7%)	
2.	Feeling very sick	0 (0%)	0 (0%)	128 (42.7%)	166 (55.3%)	6 (2%)	
3.	Feeling that you have a lot of energy	270 (90%)	10 (3.3%)	12 (4%)	8 (2.7%)	0 (0%)	
4.	Feeling that you have a lot of power and activity	300 (100%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	
5.	Feeling that you are unable to sleep	20 (6.7%)	6 (2%)	182 (60.7%)	86 (28.7%)	6 (2%)	
Bodily pain		Extremely	Severe	Moderately	A little bit	Not at all	
1.	How much bodily pain have you had during the past 4 weeks?	0 (0%)	0 (0%)	4 (1.3%)	40 (13.3%)	256 (85.3%)	
2.	How much did pain interfere with your normal work including both work outside the home and housework?	0 (0%)	0 (0%)	0 (0%)	32 (10.7%)	268 (89.3%)	
Social activity		Extremely	Quite of time	Some of the time	slightly	Not at all	
1.	How much of time have your physical health interfered with your social activities?	0 (0%)	41 (14%)	180 (60%)	72 (24%)	6 (2%)	
General health		Definitely false	Mostly false	Don't now	Mostly true	Definitely true	
1.	I seem to get sick a little easier than other people	152 (50.7%)	12 (4%)	68 (22.7%)	10 (3.3%)	58 (19.3%)	
2.	I am as healthy as anybody I know	146 (48%)	114 (38%)	36 (12%)	4 (1.3%)	0 (0%)	
3.	I expect my health to get worse	14 (4.7%)	18 (6%)	66 (22%)	146 (48.7%)	56 (18.7%)	
4.	My health is excellent	282 (94%)	10 (3.3%)	0 (0%)	8 (2.7%)	0 (0%)	
Sexual function		None	Rarely	Sometimes	Often	Usually	
1.	Dyspareunia	18 (8.2%)	0 (0%)	102 (46.4%)	8 (3.6%)	92 (41.8%)	
2.	Loss of sexual desire or libido	6 (2.2%)	0 (0%)	40 (18.2%)	36 (16.4%)	138 (62.7%)	
3.	Decrease in Frequency of intercourse	0 (0%)	0 (0%)	40 (18.2%)	58 (26.4%)	122 (55.5%)	
4.	Decrease in sexual response	6 (2.7%)	8 (3.6%)	108 (49.1%)	38 (17.3%)	60 (27.3%)	
5.	Lack of lubrication	0 (0%)	20 (9.1%)	30 (13.6%)	34 (15.5%)	136 (61.7%)	
Routine activity		Not limited at all		Limited a little		Limited a lot	
1.	From self-caring	0	(0%)	4	(1.3%)	296	(98.7%)
2.	From young family member rearing	0	(0%)	0	(0%)	300	(100%)
3.	From housekeeping	0	(0%)	0	(0%)	300	(100%)

Frequency (n); percentage (%)

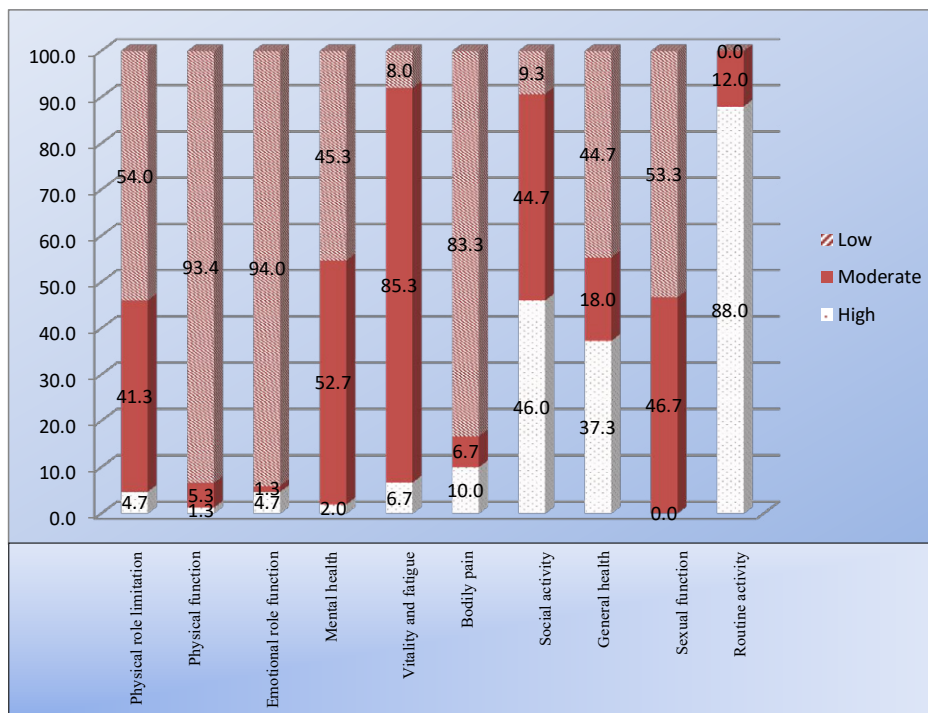


Figure 3: Participants' total quality of life dimensions.

Table 3: Significant relationships between participants' total quality of life and their sociodemographic characteristics, menstrual history, and duration of bleeding.

Sociodemographic characteristics	Total quality of life			x ²	p-value
	Low (n=120)	Moderate (n=162)	High (n=18)		
Age				6.23	0.18
Marital				51.7	0.000**
Education				16.3	0.012*
Residence				7.58	0.02*
Occupation				5.24	0.07
Menstrual history and duration					
Regularity					
Regular	96 (80%)	158 (97.5%)	18 (100%)	13.5	0.001**
Irregular	24 (20%)	4 (2.5%)	0 (0%)		
Duration					
2 days	0 (0%)	10 (6.2%)	0 (0%)	17.1	0.029*
4 days	0 (0%)	6 (3.7%)	0 (0%)		
5 days	62 (51.7%)	88 (54.3%)	18 (100%)		
6 days	26 (21.7%)	36 (22.2%)	0 (0%)		
7 days	32 (26.7%)	22 (13.65)	0 (0%)		

Chi-square (x²)

*statistically significant at p < 0.05

**highly statistically significant at p < 0.001

Table 4: Correlation between participants' total quality of life and their blood loss specifically menstrual flow and presence of clots.

Blood loss	Total quality of life	
	R	p-value
Menstrual flow	-0.07	0.37
Clots	0.05	0.50

Pearson product moment correlation coefficient (R)

*statistically significant at p < 0.05

**highly statistically significant at p < 0.001

significant. However, no statistically significant relationship is distinguished in their age and occupation.

Correlation between participants' total quality of life and their blood loss specifically menstrual flow and presence of clots

Table 4 illustrated that the more menstrual flow is experienced, the more perceived decrease quality of life is reported. Therefore, a negative correlation is seen between participants' total quality of life and their menstrual flow and clots ($r=-0.07$).

Discussion

Abnormal uterine bleeding affects the physical condition of a woman, as well as the psychological aspect on the quality of life; without structural abnormalities detected but having an abnormal uterine bleeding due to hormonal mechanism that may relate to uncomfortable physical, emotional, sexual and even professional aspect which impairs the quality of life of a woman.^[13,20-22]

While abnormal uterine bleeding was common to women aged 41 to 50 years, married, and as housewife.^[2,21,23] However, a study indicates that 18 to 25 years of age has the highest number of respondents affected with abnormal uterine bleeding, while the lowest percentage belongs to 55-year-old women, mostly residing in urban areas, and regrettably unable to obtain their education.^[5,21,23]

Most women's menstrual history had menarche at 12 years old and those associated symptoms with regular periods of five days.^[24,25] Due to major disease factor of abnormal uterine bleeding, the most reason for women is excessive menstrual blood loss.^[21] While other studies, thirty-two percent experiences heavy menstrual flow during first two days, thirty-nine percent have moderate menstrual bleeding, and 15% with light menstrual blood flow.^[26] Formation of blood clots during menstruation is unusual to perimenopausal women but this may happen while having excessive bleeding due to presence of uterine tissue during shedding of the endometrial tissue.^[27]

More than half women had decreased in work performance; and most women felt that heavy menstruation affects their performance on sports and vigorous activities, and family caring with majority has less accomplishments.^[5,23,28] Some studies found that women felt less energy and no physical strength and has difficulty of falling sleep.^[28,29] Loss of sexual desire and lack of lubrication are likewise remarkably noticeable with vaginal dryness and less libido.^[23]

Various studies reveal low point on the total quality of life of women to physical work limitation, moderate quality of life in vitality and fatigue, and emotional function.^[23,30,31]

Total quality of life measures all life's domains and can be affected in relation to physical role limitation and social responsibility.^[5,28] An individual perception to quality of life is based on the situation, standards, expectations and cultural values and system.^[32] In this study, the relationship between sociodemographic characteristics affect respondents' total

quality of life. Studies state that a higher proportion of urban women have been reported to be affected in their quality of life such as the physical health, psychological, social relationships, and environmental domains compared to the rural women.^[33,34] Contrarily, one study indicates the difference in culture, customs and character of rural communities and perimenopausal women background who lived in rural areas are more affected in their quality of life.^[35] In addition, marital status has significant relationship to total quality of life in which current findings is congruent to a study that identifies married multiparous women were considered to be the most affected from abnormal uterine bleeding.^[23] This is associated with hormonal changes; more average blood loss and parity doubtlessly augments the frequency of irregular bleeding. Authors have implied that higher occurrence in married women can be elucidated on the basis of general clinical population which illustrates advanced frequency of married women. Furthermore, majority of the participants in the current study demonstrated a normal cycle of five days. Previous studies reveal that mostly women regardless of regular cycle had experienced abnormal uterine bleeding.^[25,36] This was linked with hormonal imbalances which may precipitate increase in quantity of blood loss and presence of blood clots which influences women to develop any form of abnormal uterine bleeding. Moreover, some studies state that variates in menstruation consequential from augmented quantity, extent, or incidence may influence physical, emotional sexual and professional characteristics of women's lives, impairing their quality of life.^[22] Yet, current study indicated that menstrual duration revealed a significant relationship to total quality of life. Studies confirmed that any abnormal uterine bleeding can be a source of anxiety distressing quality of life, reporting the major impact menstruation to physical conditions affecting daily performance while bleeding pattern commonly disrupts daily life.^[4,23,37]

The current study showed negative correlation between respondents' total quality of life and menstrual history (duration of menstrual bleeding and presence of clots). The relation between menstrual history with more increase in duration of bleeding and presence of blood clots decreases the total quality of life. Likewise, a certain study identifies heavy menstrual bleeding which significantly affects quality of life at Karolinska University and found that there was negative relation between duration of period, presence of clots and total quality of life.^[26] A few studies investigate menstrual flow that can affect women the most in which women with self-reported heavy menstrual bleeding pointed to pain, heaviness, mood change/tiredness and irregularity, and that abnormal uterine bleeding indicates irritation/inconvenience, bleeding-associated pain, self-consciousness about odor, social embarrassment, and ritualistic behavior affects the daily life activities of respondents.^[38,39]

These findings were also consistent with the response to a study considering discernments and behavior accompanying with menstrual bleeding.^[26] In another study, 80% of women with heaviest menstrual flow days impacted attendance and performance at work and/or school, performance and the usual housekeeping tasks.^[5]

Limitation

By means of a random sampling in a larger population is approvingly advocated to prevent restriction to generalize findings.

Conclusion

Abnormal uterine bleeding is one of the most common causes of perimenopausal disturbance, affecting not only physical condition but likewise extent to involve psychological aspect in women's quality of life. In the study, more than half of studied women suffering from abnormal uterine bleeding perceived a quality of life in moderation. However, it was identified negatively correlated with menstrual flow.

Recommendations

Development of self-care guideline is highly suggested to recuperate the quality of life among perimenopausal women who are suffering from abnormal uterine bleeding. Likewise, the use booklet and posters as a method to increase women awareness regarding normal and abnormal blood loss amount and duration in outpatient clinics is compellingly recommended. A large sample of perimenopausal women diagnosed with abnormal uterine bleeding in different outpatient clinics or health center is similarly suggested for future research.

Acknowledgement

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Authors' Contributions

EEF and AMS conceptualized, designed, and data acquisition of the study. EEF, AMS, and CDA analyzed data statistically and prepared the draft manuscript. All authors equally provided definition of intellectual content, literature search, and data analysis. Likewise, all authors have critically reviewed and approved the final draft with the acknowledgement that all authors made substantial contributions to the work reported in the study until publication.

Competing Interests

The authors declare that they have no competing interests.

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