Original Research Article

Contributing factors and quality of life among women with abnormal uterine bleeding

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ABSTRACT

Background: Abnormal uterine bleeding (AUB) is one of the most common debilitating menstrual problems and it has a major impact on quality of life.
Methods: A explorative research design was adopted to study the contributing factor and quality of life. Hundred and fifty (150) women with AUB were selected purposively from gynecology OPD of IMS and SUM Hospital, Bhubaneswar, Odisha. The tools used for the study were 1) the socio-demographic questionnaire, 2) questionnaire to assess the contributing factors and 3) WHOQOL-BREF questionnaire to assess the quality of life. The data were analyzed using descriptive and inferential statistics.
Results: Highest percentage of women (46.66%) were aged between 46 and 50. Majority of women had mental stress (72.67%) and were non-vegetarian (66%). Half of the (50.66%) women had a family history of AUB, and 16.66% of women had a family history of malignancy. Majority (76.66%) of women were diagnosed with medical conditions and among the highest percentage (27.84%) of them had thyroid diseases. The overall quality of life score was 65.08±11.19 and the social relationship domain (38.72±7.11) was more affected and the environmental domain (75.94±4.12) was least affected.
Conclusions: Various factors are involved in the development of abnormal uterine bleeding. There is a need for awareness about the contributing factors and prevention of AUB among reproductive-age women.

Keywords: Abnormal uterine bleeding, Contributing factors, Quality of Life, Women

INTRODUCTION

Women play a major role in human progress and have a significant place in society.[1] Women's health deals with a wide range of issues, including menstruation, fertility issues, childbirth issues, sexually transmitted infection (STIs), hormone disorders, and others.[2]

Most (92%) of the women were found to have one or more gynecological diseases and the average number of these diseases per woman was 3.6. Infection of the genital tract contributed to half of this morbidity.[3] Research studies shown a varied prevalence of these specific communities reported that overall 20.28% of the women had one or more gynecological symptoms: 87% of women had dysmenorrhea, 86% had premenstrual syndrome, 72% had abnormal menstrual bleeding and 63% had genital infection.[4,5]

Abnormal uterine bleeding (AUB) is defined as any changes in the menstrual blood flow. It affects up to 30% of women during reproductive age.[6-8] The socio-economic and personal burden of AUB lies in its major impact on the quality of AUB life, potentiality, and health care use and costs.[9-11]

It mainly affects all age group. The AUB is also a term for any deviation from the normal menstrual flow. Bleeding is said to be abnormal when there is an irregular menstrual bleeding pattern, duration is abnormal (>7 days), or menorrhagia or abnormal amount (>80 ml/menses).[7]

The International Federation of Gynaecology and Obstetrics (FIGO) had classified the causes of AUB. There is mainly 9 classification which is arranged according to the acronym PALM-COEIN: P-polyp, A-adenomyosis, L-leiomyoma, M-malignancy, and hyperplasia, C-coagulopathy, O-ovulatory dysfunction-endometrial, I-iatrogenic- not yet classified.[9]

In women secondary to pregnancy, systemic hemostatic disorders, hormonal imbalance, and endocrine disorders may responsible for occurring AUB.[10,11] Obesity, PCOS, anorexia or crash diet, stress, and extreme exercise can all causes to disruption of normal ovulatory function which leads to the development of AUB. AUB and its subgroup, heavy menstrual bleeding is a common condition affecting 14-25% of women of reproductive age AUB.[12]

AUB significantly affects a woman's physical, emotional, social and material quality of life.[13] It is closely related to lower quality of life, poor productiveness, loss of family interaction, reduction of social productivity and lower sexual activity along with increased health care expansion of patients that may affect the risk of comorbidities in women.[14]

Abnormal uterine bleeding accountability for morbidity in reproductive age. Approximately half of all women, presenting with AUB have no evidence of underlying pathology. But in half of the women, uterine fibroid and polyp are the most common histological abnormality found.[15] It is important to identify the causative factors and assess for quality of life for further intervention.[16]

There were very limited studies are available related to contributing factors and quality of life of women with AUB. Ethnicity or settings of studied populations can lead to difficulties in interpreting the result. To address this lack of information, the aim of the present study was to investigate the contributing factors of AUB and the quality of life for women with AUB.

METHODS

A quantitative approach with an explorative research design was adopted to assess the contributing factors, and quality of life among women with abnormal uterine bleeding. The study was carried out in the Gynecology OPD of IMS and SUM Hospital, Bhubaneswar, Odisha. The women aged between 35 to 50 years, understand Odia language and available during the data collection period were included in the study. Women underwent menopause and were not willing to give consent were excluded from the study. A total of 150 women with AUB were selected purposively. Institutional Ethical Committee (IEC) and administrative permission were taken from IMS and SUM Hospital. The tools used to collect the data were as follows: 1) demographic questionnaire, 2) questionnaire to assess the contributing factors of AUB and 3) WHOQOL-BREF scale was used to assess quality of life. Data was collected by an

interview schedule. The data were analyzed using descriptive and inferential statistics with SPSS 21 version.

RESULTS

Table 1 shows the demographic characteristics of women with AUB.

Table 1: Demographic characteristics of women with abnormal uterine bleeding (AUB)

Socio-demographic data	Frequency	Percentage
Age (years)		
35-40	47	31.33
41-45	33	22
46-50	70	46.66
BMI		
Below 18.5	30	20
19.5-24.9	96	64.1
25.0-29.9	20	13.34
30.0 and above	4	2.66
Education level		
No formal education	17	11.34
Primary	47	31.34
Secondary	47	31.33
Higher Secondary	23	15.33
Graduate and above	16	10.66
Occupation		
Housewife	93	62
Working	57	38
If working specify (n=57)		
Skilled worker	43	75.44
Non-skilled	14	24.56
Duration of married life		
<5	1	0.66
5-9	2	1.34
10-14	10	6.66
15-19	29	19.33
20-24	46	30.67
25-29	44	29.34
>29	19	12
Family income		
<5000	22	14.67
5001-10,000	59	39.35
10,001-20,000	47	31.34
>20,000	22	14.64
Type of family		
Joint family	45	30
Nuclear family	99	66
Extended family	6	4
Residence		
Urban	81	54
Rural	69	46
>30 weeks	55	69

Highest percentage of women belongs to the age group of 46-50 years (46.66%), had BMI of 18.5-24.9 (64%), and had higher secondary education (31.34%). Occupation of women shows that 62% of women were housewives.

Highest (39.35%) percentage of women were having family income between Rs 5,000-10,000. Majority (66%) of women were from nuclear families and the highest percentage (54%) of women were from urban areas.

Table 2: Distribution of contributing factors among women with AUB.

S. no.	Contributing factors		Frequency	Percentage (%)
Lifestyle				
1	Physical activity	Sedentary	19	12.67
		Moderate	89	59.33
		Heavy worker	42	28
2	Having mental stress	Yes	109	72.67
		No	41	27.33
2a	If yes, source	Marital	15	10
		Family	33	22
		Financial	46	30.66
		Occupational	15	10
3	Smoking	Yes	18	12
		No	132	88
Nutritional factors				
4	Type of diet	Non-vegetarian	99	66
		Vegetarian	51	34
5	Vegetable intake	Never	25	16.66
		Weekly	110	73.34
		Daily	6	4
		Occasionally	9	6
6	Fruits intake	Never	19	12.66
		Weekly	104	69.34
		Daily	6	4
		Occasionally	21	14
7	Red meat intake	Never	43	28.66
		Weekly	12	8
		Daily	88	58.66
		Occasionally	7	4.66
8	Chicken intake	Never	40	26.67
		Weekly	7	4.66
		Daily	89	59.33
		Occasionally	14	9.34
9	Junk food Intake	Never	44	18
		Weekly	4	12.66
		Daily	23	9.33
		Occasionally	79	60
10	Dairy food intake	Never	27	18
		Weekly	19	12.66
		Daily	14	9.33
		Occasionally	90	60
Medical factors				
11	Family history of AUB	Yes	76	50.66
		No	74	49.33
12	Family history of malignancy	Yes	25	16.66
		No	125	83.33
13	Presence of Medical diseases	Yes	115	76.66
		No	35	23.33
13a	If yes specify (n=115)	Diabetes	8	6.95
		Thyroid disease	32	27.84
		Cardiovascular disease	6	5.21
		Renal disease	3	2.6

Continued.

S. no.	Contributing factors		Frequency	Percentage (%)
		Anemia	59	51.3
		coagulopathy	5	4.37
		Any other	2	1.37
14	Presence of gynecological disease	Yes	1.44	96
		No	6	4
14 a	If yes specify (n=144)	Polyp	30	20.82
		Adenomyosis	53	36.7
		Leiomyoma	42	29.25
		Malignancy	6	4.18
		PCOD	6	4.2
		Ovarian cyst	1	0.69
		Any other	6	4.16
15	History of taking medication	OCP	35	23.34
		NSAID	35	23.34
		Steroid	10	6.66
		Neuropsychiatric drug	7	4.66
		Anticoagulant drug	7	4.66
		Any other	17	11.33
Menstrual history				
16	Amount of menstrual flow	Light	7	4.66
		Normal	32	21.34
		Heavy	111	74
17	Duration of menstrual Flow	<21 days	101	67.34
		21-35 days	46	30.66
		>35 days	3	2
18	Nature of abnormal uterine bleeding	Irregular bleeding	11	67.34
		Prolong menstrual bleeding	46	30.66
		Menorrhagia	3	2
Obstetric history				
19	Gravida	0-2	100	66.67
		3-4	46	30.67
		5-6	4	2.67
20	Parity	Primi para	37	24.66
		Multipara	113	45.34
21	Number of living child	1	38	25.34
		2	84	56
		>2	26	18.66
22	History of abortion	Yes	41	27.34
		No	109	72.66
23	Mode of delivery	Spontaneous vaginal delivery	107	71.34
		LSCS	36	24
		Forcep delivery	7	96.67
24	Have you breastfed your baby	Yes	145	96.67
		No	5	3.33
24 a	If yes, duration of breastfeed	<6 month	5	3.34
		6month-1 year	84	56
		1-2 year	44	29.33
		>2 year	12	8
		No breastfeed	5	3.33

Table 2 shows the contributing factors of AUB among the women with AUB. Lifestyle of women shows that highest percentage (59.33%) of women doing moderate physical activity, majority (72.67%) of women had mental stress and 12% of women were smokers.

Nutritional factors show that the highest percentage (66%) of women were nonvegetarian. Among them, highest percentage of women were consuming red meat (58.66%) and chicken (59.33%) daily whereas they are consuming vegetables (73.34%) and fruits (69.34%) weekly.

Medical factors show that half of them (50.66%) had a family history of AUB, and 16.66% had a family history of malignancy. Nearly 3/4th (76.66%) of women were diagnosed with medical conditions. Among them, highest percentage (51.3%) of women were diagnosed with anemia and followed by 27.84% of them diagnosed with thyroid disease. Most (96%) of the women were diagnosed with gynecological disorder and among them highest percentage (36.70%) of women were diagnosed with adenomyosis. Highest percentage (23.34%) of women were taking OCP and NSAID.

Regarding menstrual factors, highest percentage of women were having heavy menstrual flow (74%), polymenorrhoea (67.34%). Majority of them were multipara (75.34%), had normal vaginal delivery (71.34%) and 27.34% had a history of abortion. Most (96.67%) of the women were breastfed and highest percentage of them (56%) were breastfed for 6 months to one year.

Table 3: Domain wise quality of life of women with AUB (n=150).

Domain	Mean±SD
Physical health	69.60±13.94
Psychological health	60.24±12.20
Social relationship	38.72±7.11
Environmental health	75.94±14.1
Overall QOL	65.08±11.19

Table 3 shows that the domain wise QOL score of women with AUB. Overall QOL score was 65.08±11.19. The highest mean score seen in environmental domain i.e. 75.94±14.12 followed by physical domain scored 69.62±13.94 and psychological domain scored 60.24±12.20, whereas social relationship domain had least score i.e. 38.72±7.11. Hence it can be interpreted that the most affected QOL domain of women with AUB is social relationship and least affected domain is environmental domain.

Association between contributing factor of AUB and quality of life of women with AUB.

ANOVA and t test were computed to find out association between the contributing factors of AUB and domain wise quality of life. There was a significant association found with physical domain and stress (t=2.40, p=0.01). Psychological domain was associated with menstrual flow (f=3.724, p=0026). Whereas, social domain was associated with stress (t=-2.413, p=0.017), history of AUB (t=0.004, p=0.052) and amount of menstrual flow (f=16.69, p=0.005). Environmental domain was associated with type of AUB (f=2.42, p=0.042). Hence, it can be interpreted that QOL of women with AUB was not influenced by most of the contributing factors.

DISCUSSION

In present study most of the women (46.66%) were aged between 46-50 years. Iniyava et al stated that maximum (78%) women were in age group of 40 years and above.[17] Bharti et al in his study found that the women aged between 40-50 years were more affected by AUB.[18] Choudhury et al, stated that most of the women (46%) aged between 41 to 45 years were more affected.[19] Present study shows majority of the women (75.34%) were multiparous and Suseela et al also stated that multiparous women (87%) were at high risk of developing AUB.[20]

In present study, most of them (96%) were diagnosed with gynecological diseases. Among of them, 35.33% had adenomyosis and 29.33% had leiomyoma. Choudhury et al also stated that in their study more than half (58.45%) of women had complaint of heavy menstrual bleeding and 30% of them were found to be had leiomyoma.[19] Rath et al stated that BMI>30, PCOD, endometrial, ovulatory dysfunction, coagulopathy, polyp, adenomyosis, leiomyoma were the associate risk factors for AUB in their study.[18] Iniyava et al found that highest percentage of women (34.1%) had adenomyosis as a contributing factor.[17]

Present study shows that social relationship domain of quality of life was more affected and the environmental domain is least affected. Liu et al found in his study that AUB affected sexual functioning, psychological morbidity and affect social, professional and family. Most significantly affected domains were physical role functioning and emotional role functioning which focus on work productivity and other daily activities.[21]

Gokyildiz et al stated that heavy menstrual bleeding has negative effect on women's personal, family, social and work life and it decrease quality of life, this effect all eight sub dimensions of SF-36 quality of life scale which includes functioning, pain, general health, vitality, social role functioning, emotional role functioning and mental health. This study suggested that menorrhagia has negative effects on women's quality of life.[22]

Mohamed found that 47.0% of women had menorrhagia, AUB had serious impact on quality of life, women with abnormal uterine bleeding reported negative consequences of symptoms on physical, psychological andsocial support.[23]

CONCLUSION

This study found that AUB have impact on HRQOL. There is need for awareness among women about abnormal uterine bleeding and its treatment option. Healthcare providers and policy makers are required to acknowledge these disorders and provide education and counseling opportunities for the public to inform them when and how to seek medical advice.

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