Original Research

Sleep Quality and Depression among women with Abnormal Uterine Bleeding (AUB)

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ABSTRACT

Background: Abnormal Uterine Bleeding (AUB) is defined as an irregularity in menstrual bleeding. Sleeping difficulty and depressive disorders were typically noticed in patient with AUB.

Methods: A explorative research design was conducted among AUB women. One hundred fifty (n=150) women were purposively selected from Gynaecology OPD of IMS & SUM Hospital, Bhubaneswar, Odisha. The tools i.e. (1) Demographic questionnaire to assess the demographic characterstics, Questionnaire to assess the contributing factors of AUB, PSQI scale to assess sleep quality and Beck Depression Inventory scale was used to assess depression.The data were analysed using descriptive and inferential statistics with SPSS 21 version.

Results : Majority of women (46.66%) were between the age group of 46 and 50. Highest mean score seen in sleep duration domain i.e 2.32±0.78 and lowest score seen in sleep medication domain i.e 0.30±0.61. Score interpretation shows that the person score $\geq$ 5 indicate poor sleep quality. Highest percentage (39.33%) of women had severe depression according to score, followed by 29.33% had moderate depression and 11.33% had extreme depression where as 8.66% and 6.66% had mild ,borderline depression respectively whereas, only less than 5% (4.66%) were normal.Hence it can be interpreted that most of the women had poor sleep quality and depressed due to AUB.

Conclusion: The result of this study concluded that there is need to screen and plan appropriate mental health management for women with AUB to improve the sleep and reduce the magnitude of depression.

Keywords: Women, Abnormal uterine bleeding, contributing factors ,Sleep quality and depression.

INTRODUCTION

Abnormal Uterine Bleeding (AUB) is any bleeding that differs from normal menstruation. In AUB the frequency,length and pattern of bleeding throughout a menstruation cycle may vary.[1]Any variation from the regular menstrual flow is referred to as the AUB. Menstrual bleeding patterns that are irregular, periods that last longer than seven days, menorrhagia, and excessive amounts (more than 80 ml per period) are all considered abnormal bleeding.[2]

AUBisasymptomthatcanresultfromavariety of conditions including malignancy,hormone imbalance,structural lesions and physiological processes in different age groups. To standardise terminology,diagnoses and investigations in women presenting with AUB, the FIGO categorization system (PALM-COEIN) was developed in 2011.[3]

The International Federation of Gynaecology and Obstetrics (FIGO) had classified the causes of AUB according to (PALM-COEIN).There are mainly 9 classification which are arranged according to acronym PALM-COEIN: P-polyp,A – adenomyosis,L-liomyoma,M- malignancy and hyperplasia,C-coagulopathy,O–ovulatory

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dysfunction, E- endometrial,I –iatrogenic, N-not yet classified. AUB impact quality of life of women.It results poor productiveness and social relationship [4].

AUB is a widespread condition that affects women of all ages and has an adverse effect on their physical,mental and social wellbeing . Correct clinical diagnosis and the determination of the causal cause are crucial.[5]It estimates the prevalence of menstrual problems, such as heavy menstrual bleeding (HMB),intermenstrual bleeding,abnormal menstrual cycle and premenstrual symptoms changes from 19-35%[6-8].Menstrual problems are common among premenopausal women,especially just before and during menopause.AUB can interfere with quality of life and lead women to seek medical care [9-11].

The incidence of AUB ranges about 22.02%, 44% of women in the age group of 31-40 are mostly affected by AUB. Multiparous women was at higher risk of developing AUB. The most common aetiology was found to be leiomyoma (47%). The most (70%) common complaint was heavy menstrual bleeding and most common diagnostic procedures done were USG abdomen, thyroid profile test and biopsy. Majority of women's developed anaemia due to heavy menstrual bleeding. [10] Nearly half of the patients (46%) are with stress, which shows stress is one of the contributing factors of AUB and vive versa. [12]

Menstrual problem is associated with Sleep disturbance. Prevalence rate of irregular menstrual cycle, heavy menstrual bleeding,menstrual flow length more than 7 days significantly higher in participant with sleep disturbance. Heavy menstrual bleeding has significant association withPoor sleep quality and insomnia symptoms were significantly associated with menstrual length ≥ 7 [13] .

Anxiety and depression frequently observed in women with AUB.It has been observed that from various study the women with AUB experienced the most common psychological symptoms such as depression and anxiety.AUB also associated with more negative course and more negative outcome.[14]Women with AUB (15.6%) had major depression, 18.8% of women had generalized anxiety disorder and 22.9% interfere with the quality of life and mood problems such as anxiety and depression also associated with abnormal uterine bleeding and AUB associated with more negative impact anxiety – depression comorbidity. [15]

METHODS AND MATERIALS:

A Quantitative approach with an explorative research design was conducted to assess the Sleep quality and depression among women with Abnormal uterine bleeding (AUB). The present study was carried out in the Gynecology OPD of IMS & SUM Hospital, Bhubaneswar, Odisha. The women aged between 35 to 50 yrs, can understand Odia language and were available during data collection period were included in the study. Women undergone menopause and were not willing to give consent were excluded from the study. Total 150 women were selected for the study by using purposive sampling technique. Institutional Ethical Committee (IEC) and administrative permission was taken from IMS & SUM Hospital. The tools used to collect the data were as follows: (1) Demographic questionnaire to assess the demographic characterstics, Questionnaire to assess the contributing factors of AUB, PSQI scale to assess sleep quality and Beck Depression Inventory scale was used to assess depression. Data was collected by interview schedule. The data were analysed using descriptive and inferential statistics with SPSS 21 version.

RESULTS

Demographic characterstic of women with abnormal uterine bleeding (AUB)

Demographic characteristics of women with AUB shows that highest percentage of women belongs to the age group of 46-50 years (46.66%), had primary and secondary education (31.34%). Occupation of women shows that 62% of women were house wife and 38% of women were working. Among the

working women highest percentage (28.66 %) were skilled worker. Highest percentage of women had duration of married life between 20-24 year (30.67%), had family income between Rs 5,000-10,000 (39.35%), belongs to nuclear family (66%) and from urban residence (54%).

Highest percentage (64%) of women belongs to the normal BMI (18.5-24.9). Approximately 3/4th of women perceiving mental stress (72.67%) and undergone normal vaginal delivery as a mode of delivery (71.34%). Half of the women (50.66%) had the family history of AUB. Most of the women (96%) were diagnosed with gynaecological diseases. Among them highest percentage of women (36.7%) diagnosed with Adenomyosis and followed by Leiomyoma (29.25%), Polyp (20.82%), PCOD (4.2%), Malignancy (4.18%), Ovarian cyst (0.69%) and any other condition (4.16%). Highest percentage of women had heavy menstrual flow (74%) and had polymenorrhea (67.34%) i.e having menstrual cycle less than 21 days.

Table 1 shows that sleep quality of women with AUB. Individual domain score ranges from 0-3. Highest score indicates poorer the sleep quality. Highest mean score seen in sleep duration domain i.e 2.32±0.78 and lowest score seen in sleep medication domain i.e 0.30±0.61. Remaining domain scored between 1-2 i.e sleep quality (1.47±0.83), sleep latency (1.61±1.93), sleep efficiency (1.7±1.81), sleep disturbance (1.65±1.04) and day time dysfunction (1.62±0.67). And Global score is 10.69±4.12. Score interpretation shows that the person score ≥ 5 indicate poor sleep quality. Hence, it can be interpreted that the women with AUB had poor sleep quality.

Table 2 shows that the level of depression among the women with Abnormal uterine bleeding.Highest percentage (39.33%) of women had severe depression according to score, followed by 29.33% had moderate depression and 11.33% had extreme depression where as 8.66% and 6.66% had mild,borderline depression respectively.Only less than 5% (4.66%) were normal.Hence, it can be interpreted that most of the women were depressed due to AUB.

Chi square test was computed to find out the association between demographic characteristics and sleep quality of women with AUB.There was a significant association found between sleep quality,amount of menstrual flow(χ^2=7.925,p=0.019), mode of delivery (χ^2=14.317,p=0.003) respectively. And there was a significant association found between level of depression and stress($\chi^{2=}$-10.886,p=0.054), amount of menstrual flow (χ^2=19.540,p=0.034) respectively.

Table 1: Domain wise Quality of life of women with AUB .

N=150

Sl No	Components	Score Range	Mean±SD
1	Sleep Quality	0-3	1.47±0.83
2	Sleep Latency	0-3	1.61±1.93
3	Sleep Duration	0-3	2.32±0.78
4	Sleep efficiency	0-3	1.7±1.81
5	Sleep disturbance	0-3	1.65±1.04
6	Sleep medication	0-3	0.30±0.61
7	Day time dysfunction	0-3	1.62±0.67
PSQI global score		0-21	10.69±4.12

Table 2: Level of depression among women with Abnormal Uterine Bleeding

N=150

Sl No	Characteristics	Score Range	Frequency	Percentage (%)
1	Normal	1-10	7	4.66
2	Mild depression	11-16	13	8.66
3	Borderline	17-20	10	6.66
4	Moderate depression	21-30	44	29.33
5	Severe depression	31-40	59	39.33
6	Extreme depression	Over 40	17	11.33

DISCUSSION

In present study, most of the women (46.66%) were between the age group of 46-50 years. Iniyava Rl et.al (2019) stated that maximum participants (78%) were in age group of 40 years and above.[16]Rath BAet.al(2015)in his study found that the women in the age group of 40-50 more were affected by AUB,14-25%of women were in the reproductive age.[17] Sedhi LB et.al (2019) stated that maximum women(50.9%) aged more than 40years were affected.[18]

In present study, majority of the women (75.34%)were multiparous ,most of the women (74%) had heavy menstrual bleeding, majority of women (39.33%) suffered from anaemia, most of the women (53.33%) were having menorrhagia, majority of women (96%) were diagnosed with gynaecological diseases. Among them, 35.33% had adenomyosis and 29.33% had leiomyoma.

Lakshmi ST et.al (2018) found that multiparous women (87%) were at highrisk of developing AUB,47% of women had leiomyoma, 70% of women was complaint of heavy menstrual bleeding, majorityofwomenwas developed Anaemia.[19] Iniyava Rl,et.al found that highest percentage (34.1%) of women had adenomyosisas a major contributing factor.[20]

In present study highest mean score seen in sleep duration domain i.e 2.32±0.78 and sleep medication scored very least score i.e 0.30±0.61. And Global score 10.69±4.12 shows more than > 5 which indicate poor sleep quality. Kathryn E.R et.al (2020) found that short sleep duration was associated with heavier bleeding (p=0.026) and menstrual irregularities (p=0.031) as compared with normal sleep.[21]

In present study highest percentage (39.33%) of women had extreme depression, whereas 8.66% and 6.66% had mild depression and moderate depression respectively.Lee HNet.al found that, out of 124 patients,47 (37.9%)metthecriteriaforanxietyand24(19.5%) metthe criteria for depression.[22]Plotnik Get.al found that 29% of women showed moderated depression.[23]Kayhan F et.al found that the most common psychiatric disorder in patients with AUB were major depression(n=15,15.6%).[24]

CONCLUSION

This study found that AUB impact on sleep quality and depression.The burden of AUB needs further thorough investigation. Additionalresearchshallbedoneprospectively to evaluate the effect of treatment provided to guide future health resource allocation and clinical decision-making.

Conflict of Interest: Nil

Source of Support: Self

Ethical Clearance: Ethical clearance was obtained from institutional ethical committee. Confidentiality of subjects was ensured.

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